ACADIANA METROPOLITAN PLANNING ORGANIZATION

CONGESTION MANAGEMENT PROCESS (CMP)

FINAL

Adopted July 18th, 2018

Acadiana MPO is committed to the principle of affirmative action and shall not discriminate against otherwise qualified persons on the basis of race, color, religion, national origin, sex, age, physical or mental handicap, or disability in its recruitment, employment, facility and program accessibility or services.

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SECTION 1: CMP JUSTIFICATION

1.1 CMP Regulatory Requirements

The Acadiana MPO is the designated Metropolitan Planning Organization (MPO) for the Lafayette Urbanized Area (UZA). Metropolitan Planning Areas with a population greater than 200,000 are designated as Transportation Management Areas (TMAs) and must maintain a congestion management process (CMP) and use it to inform transportation planning and decision-making. These requirements were introduced by the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and have been included in all subsequent transportation bills. The CMP is intended to be an integral component of metropolitan transportation planning process. The Acadiana MPO's Congestion Management Process was developed to address this federal requirement for the Acadiana MPO.

The CMP process is required in accordance with the 23rd Code of Federal Regulations, Corridor 450.320, in the Federal Register, under the U.S. Department of Transportation. A CMP provides state Department of Transportation and MPOs with an empirically derived methodology and rational framework for addressing congestion. Federal rules require that a CMP area and network be defined by each MPO.

1.2 CMP's Purpose in the MPO's Transportation Planning Process

Aside from the CMP being a federal requirement for Transportation Management Areas, CMPs help qualify and/or identify potential projects for inclusion into the regional transportation program. The process identifies potential improvements based on quantifiable data and considers congestion in developing transportation improvements. A CMP establishes a baseline condition for future comparison of conditions and allows for project prioritization based on potential congestion mitigation. A CMP can provide solutions beyond merely adding road capacity. Development of mitigation strategies include other solutions that may be more effective and cost-efficient than adding roadway capacity. A CMP will encourage economic competitiveness and increase the reliability of planning for all modes and all journey purposes. Environmental programs that involve air quality and natural hazard mitigation also benefit from the CMP process.

1.3 Integration of the CMP into Acadiana MPO's (TMA) Transportation Planning Processes

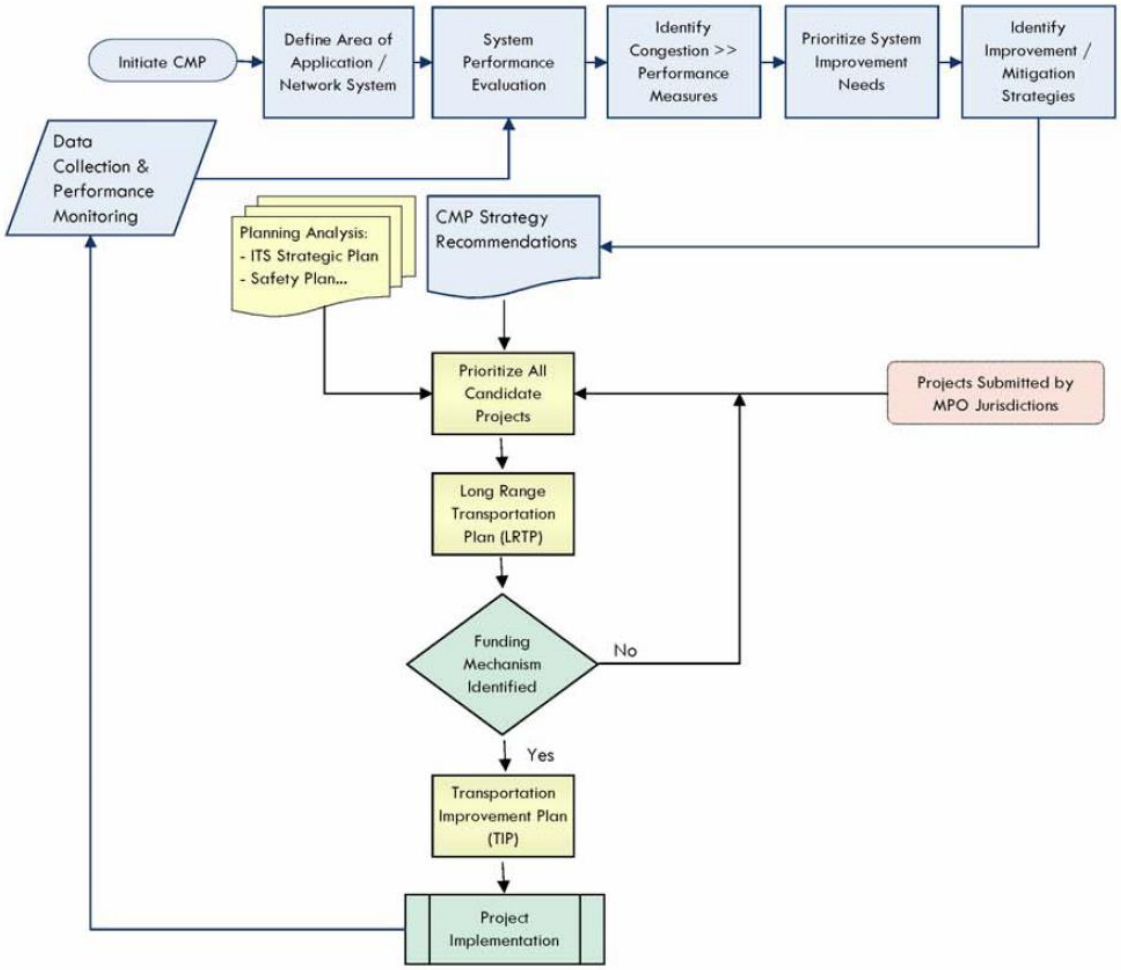
The CMP is intended to be an integral part of the metropolitan transportation planning process, rather than a stand-alone program or system. The current national transportation bill, Fixing America's Surface Transportation (FAST) Act, outlines the requirements for addressing congestion in TMAs, mandating the incorporation of the CMP within the metropolitan transportation planning process. Integration of the CMP into the planning process provides decision makers better tools for project prioritization.

The six primary components of the Acadiana MPO's CMP are:

1) Area of application and system definition
2) System performance evaluation
3) Identification of areas of congestion (through performance measures)
4) Methodology to prioritize corridor/corridor improvement needs
5) Mitigation/Improvement strategy identification
6) On-going data collection and performance monitoring

Figure 1.1, CMP Linkage to the MPO Planning Process, illustrates how the distinct CMP process elements are integrated into the overarching MPO transportation planning process. A critical process element within the overall MPO planning process occurs when the prioritization of all candidate projects is undertaken. It is at this juncture that CMP improvement strategies are recommended, as well as the recommended improvements from other MPO planning analysis efforts, and the improvement projects/strategies submitted by the MPO's member jurisdictions.

Figure 1.1
CMP Linkage To The MPO Planning Process



1.4 CMP Participation

Acadiana MPO's Congestion Management Process will continue to be developed through a cooperative effort with members of the MPO Committees. The MPO will continue to provide planning and engineering guidance to the MPO's Transportation Policy Committee (TPC) and Technical Transportation Committee (TTC) in addressing issues of the MPO's transportation programs (i.e. CMP). In order to integrate the CMP into the planning process the

development of the CMP will periodically be discussed during the TPC and TTC meetings. The member agencies and groups represented on these committees include:

- Louisiana Department of Transportation and Development (LADOTD)
- Local Transit Agencies
- Planning and Public Works personnel in the MPO area
- Elected Officials or their appointees in the MPO area

The MPO's Project Evaluation Subcommittee, with members from both the Transportation Policy and Technical Committees, will assist in identifying congested corridors and then creating mitigation strategies for these same congested areas.

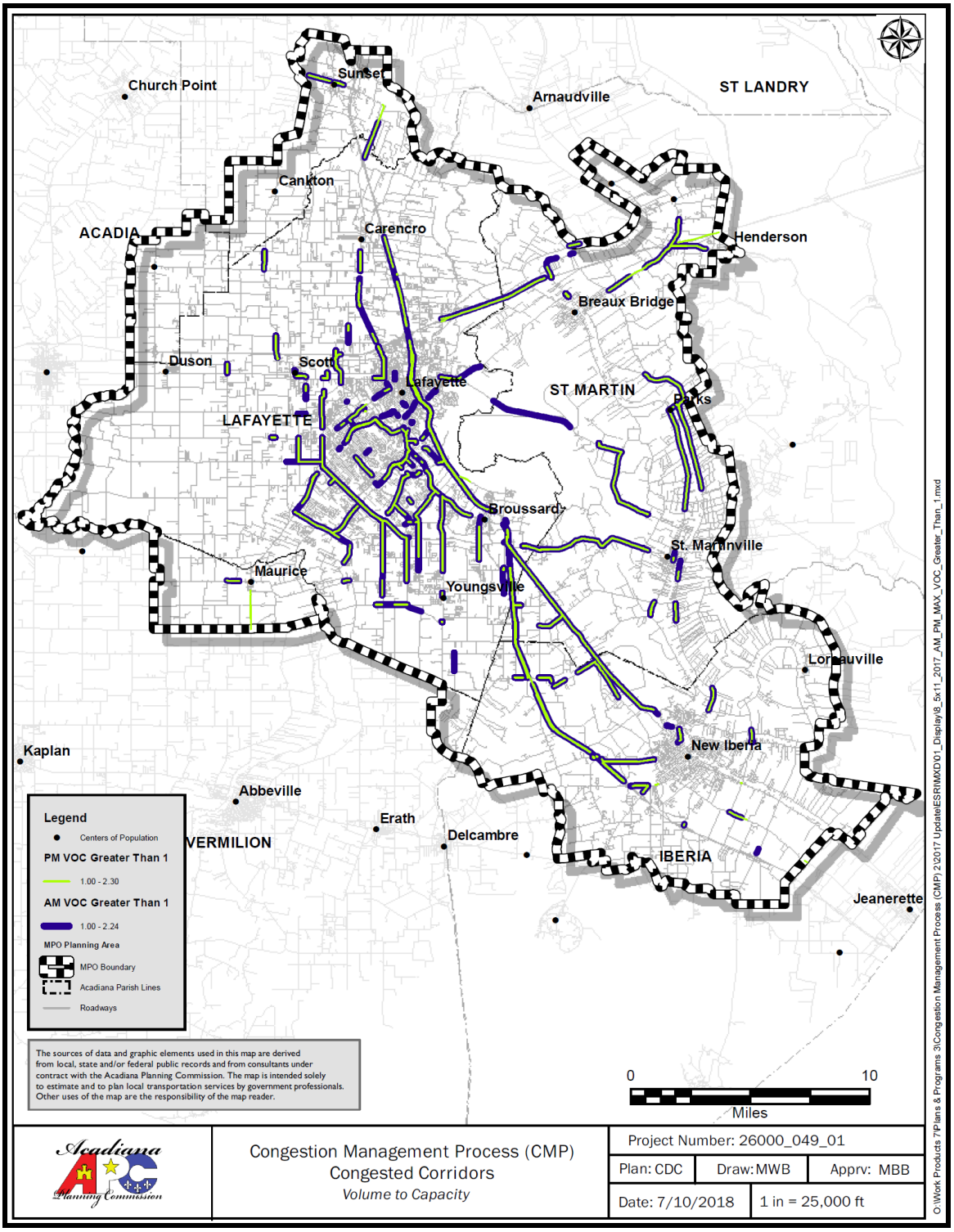
SECTION 2: ACADIANA MPO'S CMP DEVELOPMENT

2.1 CMP Area of Application (Study Area)/System Network (Corridors)

CMP study area boundaries mirror the ones that were established for the U.S. Census designated twenty-year urban growth area, otherwise known as the 2010 Metropolitan Planning Area (MPA) boundary. Initially, all transportation infrastructures contained within the study area are considered through the CMP. Since it is impractical to provide performance analysis for all transportation systems, a prioritization process was developed.

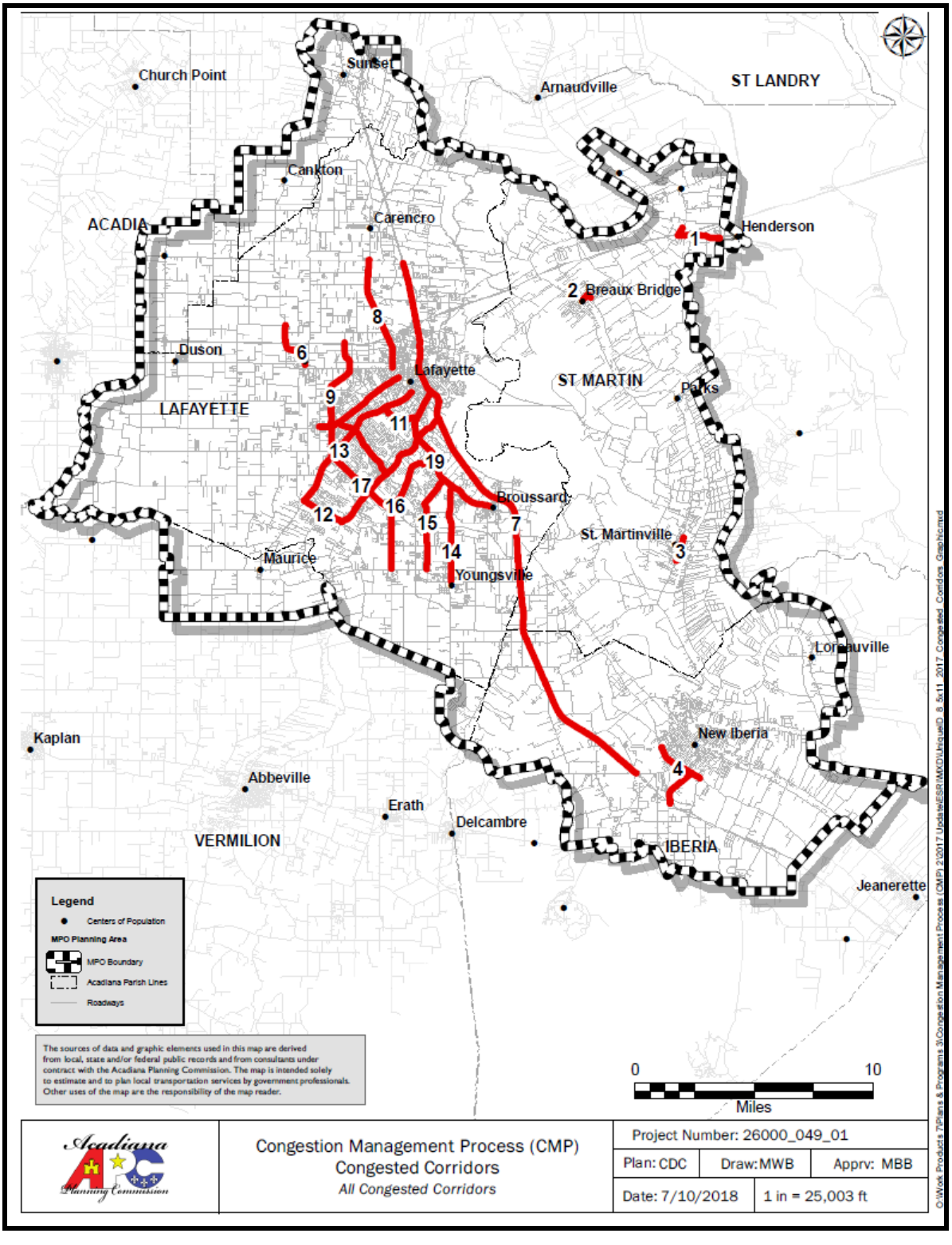
The Acadiana MPO utilized their in-house regional travel demand forecasting model, TRANSCAD, to identify the most congested transportation facilities. One method of assessing congestion is to use the roadway's volume to capacity ratio to determine a Level of Service (LOS). A volume to capacity (V/C) ratio of 1.0 is used as the initial performance threshold level. The V/C ratio correlates to a measure of congestion called Level of Service (LOS). Level of Service is an alphabetized measure of congestion using letters A-F. A Level of Service A indicates a free flow condition with Level of Service F being the worst grade of congestion. For Acadiana MPO's travel demand model a V/C ratio of 1.0is equal to a LOS of D, which is a congested condition. All model links (segments) operating at the threshold of 1.0 or greater are identified as candidates in the development of the CMP study corridors. *Figure 2.1, Congested Corridors – Volume to Capacity*, shows the roadway segments with a Volume/Capacity ratio of 1.0 and greater. Also known as Level of Service (LOS) D-F.

Figure 2.1 Congested Corridors – Volume to Capacity



The model projected many little segments with high congestion as well as segments in between congested corridors with little congestion or no congestion. These small segments and gaps were eliminated to form continuous corridors. These corridors are shown in *Figure 2.2, Congested Corridors – All Congested Corridors*.

Figure 2.2 Congested Corridors – All Congested Corridors



Within the CMP study area, nineteen corridors were developed equaling a total one-way length of approximately 85 miles. Twelve of the corridors are state highways, while seven are parish roads. Using DOTD's proposed functional classification all corridors are either principal/major arterials except for Bonin Road which is a collector. *Table 2.1, CMP Study Corridors*, describes the physical extent of each individual corridor. Cells highlighted in red indicate a local, non-state owned corridor.

Table 2.1: CMP Study Corridors (Corridors in Red are Local Roads))

Map ID	Corridor Name	Length (miles)	Extents
1	Saint Mary Street (La. 93)	2.3	U.S. 90 to Renaud Dr.
2	University Avenue (La. 182)	4.8	Willow St. to Gloria Switch (La. 98)
3	Ambassador Caffery (La. 3073) Partial State/Local	8.6	I-10 to Verot School Rd. (La. 339)
4	Evangeline Thruway (U.S. 90)	25.63	Gloria Switch to La. 14 (New Iberia)
5	Verot School Rd. (La. 339)	5.6	La. 92 to Pinhook Rd. (La. 182)
6	Kaliste Saloom Road	4.4	E. Broussard Rd. (La. 733) to U.S. 90
7	Congress Street	4	University Ave. (La. 182) to S. Domingue
8	South College Road (La. 3025)	1.6	Johnston St. (US 167) to Pinhook Rd. (La. 182)
9	E Broussard Road (La. 733)	1.8	Johnston St. (US 167) to Kaliste Saloom Rd.
10	Youngsville Highway (La. 89)	4.1	Pinhook Rd.(La. 182) to La. 92
11	Bonin Road	4.1	Pinhook Rd. (La. 182) to La. 92
12	Poydras/Grand Pointe Highway (La. 328 and La. 336-1)	0.5	Grand Point Highway to La. 31
13	Camellia Boulevard	3.1	Johnston St. (US 167) to Congress St.
14	Johnston Street (U.S. 167)	6.7	University Ave. (La. 182) to E. Broussard Rd. (La. 733)
15	Grand Point/Henderson Highway (La. 347/La. 352)	2.1	I-10 to Old Trash Pile Rd.
16	North/South Main Street (La. 31)	1	Porter to Denbas St.
17	Admiral Doyle Road (La. 674)	2.2	Jefferson Island Rd. to Lewis St.
18	Lewis Street	1.7	U.S. 90 to Admiral Doyle Rd. (La. 674)
19	Pinhook Road (La. 182)	6.6	U.S. 90 to Morgan St.

Local Roads

2.2 CMP System Evaluation – Performance Measures

The data requirements of a CMP are significant. In order to get a quantifiable reflection of the identified corridor the following measures were observed to develop and evaluate the associated measures:

1) Average Travel Speed and posted speed limits gave Travel Speed/Rates. This was used to calculate a "Speed Deficit" measure for segments. (corridor-segment level analysis; calculate a "Speed Deficit" measure)

2) V/C ratio from travel demand model provided a Level of Service along the segment.

2.3 Traffic Flow Data Collection (Travel Time Runs)

The precise collection of travel speed data is critical to accurately determining facility performance levels. There were two main types of data collection for this CMP.

The first was a technology utilizing Bluetooth devices. These devices were used to collect raw position and temporal data along the CMP corridors at signalized locations only. (*Appendix A contains a detailed description of this data collection methodology*). Raw position files stamped with a time are transformed into useable average travel speed (rate) data and assigned to individual corridor segments for further analysis (i.e. MPH calculations).

The second type of data collection used a form of GPS technology through a smart phone application. The application was turned on to track location by time while traversing the desired corridor. After the travel run was concluded, these GPS points were exported into a Geospatial Information System (GIS), as well as database format and then analyzed along with the Bluetooth data.

In order to check the validity of the smart phone application data some hand timed runs were made.

The main difference between these two data types was number of samples. The phone application was used for one hour increments during the AM and PM peak periods (7:30-8:30 A.M. and 4:30-5:30 P.M.). On average, per corridor, per timeframe, approximately five roundtrips were gathered with the phone application versus several thousand, on average, for the Bluetooth data.

After attaining and combining this data the directional congestion along each corridor was determined through a Speed Deficit calculation. *Speed Deficit is the calculated difference between average peak travel speed and average posted speed limit.*

A Speed Deficit calculation produces an easily understood measure of facility congestion. A large discrepancy between the average posted speed limit and average peak period travel speed indicates the presence of congestion. Locally, congestion "significantly" impedes travel when there is a difference of approximately 15 mph along primary surface streets or as little as a 7-mph reduction on limited access facilities.

2.4 Identify Network Congestion on Selected Corridors with Real Travel Speed Data

From the traffic flow data collection performed during 2017 over 66 roadway segments were identified with a speed deficit in excess of 15 mph. *Table 2.2, Top Thirty – Speed Deficit Corridors*, summarizes the top thirty study corridors, by direction, which exhibited the highest speed deficits.

Table 2.2: Top Thirty – Speed Deficit Corridors

Rank	Location (From-to)	2017 Speed Deficit	Projects Planned
1	Youngsville Hwy.(La. 89) -(La. 92 to La. 182)	32	In Long Range Plan to widen to four lanes. Next project is to study for feasibility of widening
2	Kalsite Saloom Rd. (S College Ext. to Fue Follet)	31.27	LCG Partial RPI could ease congestion at Pinhook Rd.& Kaliste Saloom Rd. therefore alleviating corridor congestion
3	Kaliste Saloom Rd. (E. Broussard to Ambassador Caffery Pkwy.)	31	LCG Currently planning to widen. Construction Work to begin 2017
4	E. Broussard (La. 733) - (Kaliste Saloom Rd. to Johnston St.)	30.2	LCG Currently planning to widen Kaliste with Roundabout at intersection of E. Broussard & Kalise. Construction Work to begin 2017
5	Verot School Rd. (La. 339) - (Amb Caffery Pkwy. to Camellia Dr.)	29.3	DOTD Currently widening to 4/5 lane
6	Ambassador Caffery Pkwy. (Frem Boustany to Verot School Rd.)	28.2	
7	Pinhook Rd. (La. 182) - (Corporate Dr. to La Rue France)	27.62	
8	Camellia Dr./Guilbeau rd. (Academy Dr. to Congress Dr.)	27.53	
9	Youngsville Hwy.(La. 89) - (La. 182 to La. 92)	27.2	In Long Range Plan to widen to four lanes Next project is to study for feasibility of widening
10	Ambassador Caffery Pkwy (Bertrand Dr. to Guilbeau Rd.)	27.08	
11	Ambassador Caffery Pkwy. (Bonaire Dr. to Frem Boustany)	26.11	South City Parkway extension
12	Kaliste Saloom (Fue Follet to S College Ext)	26.11	LCG Partial RPI could ease congestion at Pinhook & Kaliste therefore alleviating corridor congestion
13	W Congress (Guilbeau Rd. to Domingue Rd.)	25.83	
14	Ambassador Caffery Pkwy (Guilbeau Rd. to Bertrand Dr.)	25.31	
15	Pinhook Rd. (La182) - (Surrey St. to General Mouton)	25.12	Rt. turn lane at intersection of Evangeline Thrwy & Pinhook Rd. added in 2016
16	Bonin Rd. (La. 182 to La. 92)	25.1	Roundabout at La Neuville @ Bonin
17	S. College (W. Bayou Pkwy. To Pinhook Rd.)	25	
18	Ambassador Caffery Pkwy. (Frem Boustany to Bonaire)	24.61	South City Parkway extension
19	Verot School Rd. (La.339) - (Camellia Dr. to Ambassador Caffery Pkwy.)	24.35	DOTD Currently widening to 4/5 lane
20	Ambassador Caffery Pkwy. (Guilbeau Rd. to Bonaire Dr.)	24.07	
21	Kalsite Saloom Rd. (Fue Follet to Martial Ave.)	23.44	
22	Admiral Doyle (La. 674) - (Jefferson Terrace to Hopkins Rd.)	23.2	
23	W Congress (Domingue to Guilbeau Rd.)	22.89	
24	Johnston St./Louisiana Ave. (Main St. to Surrey St.)	22.75	
25	St. Mary (Renaud Dr. to U.S. 90)	22.7	
26	Ambassador Caffery (I-10 WB Ramp to Bertrand Dr.)	22.64	
27	S. College (La. 3025) -(Pinhook Rd. to W. Bayou Pkwy.)	22.3	
28	S College (La.3025) - (W Bayou Pkwy. to Johnston St.)	22.25	
29	Johnston St. (US 167) - (E. Broussard Rd. to Ambassador Caffery Pkwy.)	22.1	
30	E. Broussard Rd. (La. 733) - (Johnston St. to Kaliste Saloom Rd.)	21.98	LCG Currently planning to widen Kaliste with Roundabout at intersection of E. Broussard & Kalise. Construction Work to begin 2017

High speed deficits indicate the presence of vehicular delay and conflict within the flow of traffic. The higher the deficit the more likely congestion is present within the study corridor. These speed deficits were evaluated on a directional basis in order to see if any one direction had higher speed deficits than the other. It should be noted that all 30 corridors had speed deficits greater than 15 mph, which was previously defined as a "congested" condition.

2.5 CMP Corridor Prioritization Methodology

Speed Deficit provides an acceptable measure of congestion, but it does not address a corridor's need for improvement. In order to prioritize congested corridors for improvement, current projects listed on the Acadiana MPO's Transportation Improvement Program (TIP), including unlisted Local/DOTD projects, ADT, transit measures, land use, and safety are considered.

Identify Congested Segments ⟶ Speed Deficit ⟶ **Prioritize Corridor Needs**

1) Existing TIP Project
2) ADT
3) Land Use
4) Listed as Top Five in the 2014 CMP

Existing TIP Projects

Congested Corridors that are currently scheduled for improvements, through the TIP, are prioritized lower than Corridors that are left unimproved. The scope of the improvement will be considered during the formulation of recommended mitigation strategies. Further, including programmed improvement projects in the needs prioritization process strengthens the linkage between the CMP and the MPO's overall transportation processes.

Average Daily Traffic (ADT)

Corridors are prioritized by the amount of traffic they handle daily. Corridors with higher daily volumes were given priority over the less traveled network corridors. *By utilizing ADT as a prioritization criterion, the corridors with the highest travel demand are recommended for improvement before less traveled corridors.*

ADT data was obtained through LaDOTD's Data Collection and Analysis Corridor(http://www.dotd.la.gov/highways/tatv/) when available. In cases where LaDOTD data was not available, locally collected, unadjusted 24-hour volume counts, local permanent count stations or Travel Demand Model projections provided a reasonable estimate of daily traffic.

Surrounding Land Use

Corridors that have adjacent businesses with high numbers of employees are prioritized along with corridors that attract trips and have schools.

2.6 Identify High Priority CMP Corridors

Local prioritization of identified congested corridors adds another level of complexity to the CMP. By integrating TIP projects, ADT, and surrounding land use into a local prioritization scheme, a well-balanced and equitable approach is achieved.

Table 2.3, Prioritized Speed Deficit Corridors, identifies the prioritization recommendations for the highest speed deficit corridors. Projects that are highlighted green indicate the presence of current and/or anticipated construction.

Table 2.3: Prioritized – Speed Deficit Corridors

Priority	Corridor	Corridors From/To	Comments
1	Youngsville Hwy. (La. 89)	Milton Ave. to La. 182	In Long Range Plan to widen to 4 lanes. Next project is to study for feasibility of widening
2	Kaliste Saloom Rd.	S. College (La. 3025) to Feu Follet Rd.	LCG Partial RPI will ease congestion at Pinhook & Kaliste Saloom therefore alleviating corridor congestion
3	Kaliste Saloom Rd.	E. Broussard Rd. (La. 733) to Ambassador Caffery Pkwy. (La. 3073)	LCG Currently planning to widen. Construction Work to begin 2017
4	E. Broussard Rd. (La. 733)	Johnston St. (U.S. 167) to Kaliste Saloom Rd.	LCG Currently planning to widen Kaliste with Roundabout at intersection of E. Broussard Rd. (La. 733) & Kalise Saloom Rd. Construction Work to begin 2017
5	Verot School Rd. (La. 339)	Ambassador Caffery Pkwy. (La. 3073) to Camellia Blvd.	DOTD Currently widening to 4/5 lane
6	Ambassador Caffery Pkwy. (La. 3073)	Frem Boustany to Verot School Rd. (La. 339)	Verot School Road construction could help alleviate some of this congestion.
7	Pinhook Rd. (La.182)	Corporate Blvd. to La Rue France	LCG Partial RPI will ease congestion at Pinhook & Kaliste Saloom therefore alleviating corridor congestion
8	Camellia Blvd. and Guilbeau Rd.	Academy Rd. to Congress St.	Reduced Phase Intersection now in place. 2016 lane closure.
9	Youngsville Hwy. (La. 89)	La. 182 to Milton Ave.	In Long Range Plan to widen to 4 lane. Next project is to study for feasibility of widening
10	Ambassador Caffery Pkwy.	Bertrand Dr. to Guilbeau Rd.	Eraste Landry and Dulles Ave. intersections heavily utilized.
11	Ambassador Caffery Pkwy. (La. 3073)	Bonaire Dr. to Frem Boustany Dr.	2014 top five
12	Kaliste Saloom Rd.	Fue Follet Rd. to S College Rd. (La. 3025)	LCG Partial RPI could ease congestion at Pinhook & Kaliste therefore alleviating corridor congestion
13	W. Congress Rd.	Guilbeau Rd. to Domingue Ave.	2014 top five
14	Ambassador Caffery Pkwy.	Guilbeau Rd. to Bertrand Dr.	Eraste Landry and Dulles Ave. intersections heavily utilized.
15	Pinhook Rd. (La. 182)	Surrey St. to General Mouton Ave.	Right turn lane at intersection of Evangeline Thrwy & Pinhook added in 2016
6	Bonin Rd.	La. 182 to Milton Ave.	Construction of Roundabout at Bonnin rd. @ LaNeuvelle
17	S. College Rd. (La. 3025)	W. Bayou Pkwy. to Pinhook Rd.	
18	Ambassador Caffery Pkwy. (La. 3073)	Frem Boustany Dr. to Bonaire Dr.	2014 top five
19	Verot School Rd. (La. 339)	Camellia Blvd. to Ambassador Caffery Pkwy. (La.	DOTD Currently widening to 4/5 lane
20	Ambassador Caffery Pkwy.	Guilbeau Rd. to Bonaire Dr.	

Table 2.4, Top 5 Corridors, was developed to identify the 5 highest priority locations in terms of need. If both directions of travel for any one corridor were listed in the top twenty and was not highlighted as green (construction) then that corridor was automatically selected as a top five.

Table 2.4, Top Corridors

Priority	Corridor	Sections From/To	Notes
1	Youngsville Hwy. (La. 89)	Milton Ave. to La. 182 (Both Directions)	* Most Congested in study * Both Directions in top ten
2	Ambassador Caffery Pkwy.	Bertrand Dr. to Guilbeau Rd. (Both Directions)	* High ADT 40K per day * Both directions are in top twenty * Transit route
3	Ambassador Caffery Pkwy. (La. 3073)	Bonaire to Frem Boustany (Both Directions)	* High ADT 45K per day; * Both directions are in top twenty * Two transit routes
4	W. Congress Rd.	Guilbeau Rd. to Domingue Ave.	* High ADT 40K per day * Delay at the intersection of Congress @ Ambassador Caffery Pkwy. * Transit route
5	Pinhook Rd. (La. 182)	Surrey St. to General Mouton Ave.	* ADT 20K per day * Previous top five * Delay at the intersection of Pinhook @ Evangeline Thrwy * Monitor RTL put in for decreased speed deficit.

Section 2.7 Determination of Improvement Needs

Through the CMP, mitigation strategies were formulated which took into account physical deficiencies (i.e. geometrics), travel demand, land-use, and fiscal issues. The intent of the recommended strategies is to supply decision-makers with cost-effective improvements aimed at reducing congestion. Improvements are not only developed to improve performance along a specific high priority Corridor; they must benefit the entire network.

The value based proposed mitigation strategies are categorized within one of four major levels of mitigation strategies summarized below:

1) Temporal shift of home-based work travel behavior (Regional TDM strategies)

- MPO support of large employer (+500) compressed/staggered/flexible work hours

- The MPO is currently giving presentations to large employers, universities and civic clubs on carpooling program www.acadianaroadways.com

2) Shifting trips from automobiles to other modes

- Promote Public Transit capital improvements
- Promote Public Transit operational improvements
- Encourage the use of non-motorized modes (MPO Bike/Ped. Committee, sidewalks and bicycle facilities). Bike Plan adopted May of 2018
- Funding projects for alternative transportation modes

3) Enhancing operations on existing roadway facilities (Transporation System Management (TSM) Improvements)

- Traffic operations improvements (intersection widening, signal coordination, roundabouts, traffic surveillance and control systems)
- Incident Management, detection and clearing of incidents, deployed Alternate Route Plan (ARP)
- Access management strategies (installation of medians, signal and driveway spacing, frontage roads, inter-parcel connections – faster local jurisdiction participation)

4) Increasing Roadway capacity

- Widening of existing roadways
- New roads
- Extension of existing roadways

There are many system management initiatives undertaken by jurisdictions with the common goal of managing congestion and improving the mobility of people in and across the region. However, in some cases more roadway capacity is needed to accommodate population growth.

As part of the CMP, each congested corridor was subjected to a screening process that examines the unique characteristics of the roadway and determines the most appropriate level of mitigation treatment and corresponding improvement strategy. When considering improvement strategies along an individual high priority corridor, staff and local officials will discuss the merits of proposed improvements and subsequently recommend a course of action.

Section 2.8 CMP Improvement Recommendations

As part of the CMP, improvement recommendations were developed for the top five corridors identified in *Table 2.4, Top Corridors*.

LA 89 (Youngsville Highway) – Young Street to La. 182 (NB and SB)

Average Daily Traffic – 13,000
Functional Classification – Urban Minor Arterial
Traffic Control – 3 signals and one roundabout
Land Use – Mainly Residential
Distance – 4.1 Miles
Major Traffic Generators - None

Reason for Congestion:
This corridor conveys heavy AM/PM traffic coming out of and into Youngsville. The other North/South corridors going from Youngsville out of/into Youngsville exhibit the same behavior. This is the Highest ADT route coming from Youngsville with the exception of Verot School Rd. (La. 339).

Potential Improvements/Recommendations:

- MPO is currently considering funding the intersection of Bonin & La Neuville for a roundabout. This could increase capacity on Bonin, a parallel route to LA 89, therefore reducing the congestion on LA 89 Youngsville Highway.

- MPO currently has Youngsville Hwy. in its long-range plan as a four- lane road from Milton Avenue to La. 182. The priority segment for the City of Youngsville is from Ambassador Caffery to Milton Ave.

- The new Southside High School in Youngsville could reroute current school trips to Larriviere Rd. instead of Youngsville Hwy., therefore reducing morning congestion.

Ambassador Caffery – Bertrand Drive to Guilbeau Road (NB and SB)

Average Daily Traffic – 30,000-45,000
Functional classification - Urban Principal Arterial
Traffic Control – 4 signals
Land Use – Mixed with residential traffic feeding onto collector routes (Dulles, Eraste Landry) which feed onto Ambassador Caffery.
Distance – 2.2 miles
Major Traffic Generators – None

Reason for Congestion:
This corridor provides pass-through trips for the Acadiana Mall and I-10. The largest ADT's along the corridor are between Eraste Landry Road and Dulles. The speed deficit has increased on this road by 2 mph from the last 2014 study.

Potential Improvements/Recommendations:

- Apollo Rd. extension 2 lane extension from Old Spanish Trail to Dulles. This project will allow vehicles to bypass Ambassador Caffery to get to the Acadiana mall if coming from I-10, Scott area. Could reduce congestion on Ambassador Caffery.

- Adaptive Signal System for vehicle progression

Ambassador Caffery (La. 3073) – Bonaire Drive to Frem Boustany (Both directions)

Average Daily Traffic – 45,000
Functional Classification – Urban Principal Arterial
Traffic Control – 14 signals
Land Use – Mainly commercial
Distance – 3.7 miles
Major Traffic Generators – Womens and Childrens hospital, Our Lady of Lourdes hospital, Acadiana Mall, Whole Foods, Academy and Field Stream

Reason for Congestion:
This corridor has been heavily developed in the past 5 years from Settler's Trace to Frem Boustany Rd. Mainly large outlet and retail establishments have been put in place. This has increased traffic on the mainline portion of Ambassador Caffery. This corridor also passes through the Acadiana Mall which has multiple access points off of Ambassador. This corridor was a top five corridor on the 2014 study and still is.

Potential Improvements/Recommendations:

- Continued access management and backage road concepts

- Offer major employers carpool incentives to reduce number of vehicle trips. (Work with the Travel Demand Management Program) www.acadianaroadways.com

- Reduced phase intersection of Ambassador Caffery (La. 3073) (U.S. 167) @ Johnston St.

- Adaptive Signal System for vehicle progression

- Encourage bus ridership through Transit Plan (multiple routes)

- Extension of South City Parkway (Robley to Kaliste Saloom/Verot School Rd.) will reduce traffic on Ambassador by 10,000 vehicles per day. This project is on MPO's Long Range Plan.

- Strict Access Management policies could help this corridor. 40 driveways/mile. Reducing and consolidating driveways coupled with a Boulevard could help to increase the timing and efficiency of thru traffic. Connect Petroleum building to Home Depot and Bed Bath and Beyond. Reduced Phase intersection could help thru traffic.

West Congress – Guilbeau to Domingue Road

Average Daily Traffic – 30,000
Functional Classification – Urban Principal Arterial from Guilbeau to Ambassador Caffery; Urban Minor Arterial from Ambassador Caffery to Domingue
Traffic control – 3 Signals
Land use – Mainly commercial
Distance – .8 miles
Major Traffic Generators –Prairie Elementary School, Regional Medical Center of Acadiana (heart hospital).

Reason for Congestion:
High ADT's due to the proximity of the mall. Guilbeau & Congress intersection also highly congested. The Ambassador Caffery movement gets the majority of the time at the Intersection of Congress @ Ambassador.

Potential Improvements/Recommendations:

- Offer major employers carpool incentives to reduce number of vehicle trips. (Work with the Travel Demand Management Program) www.acadianaroadways.com

- In this case, physical improvements alone will have a minimal impact upon congestion. Over the long run, significant reductions in congestion are achieved if physical improvements are tied to land use policy and demand management

approaches. For example, limiting direct access (i.e. curb cuts) onto principal arterial-corridors will stabilize flow interruptions originating from adjacent land uses.

- The additional left turn lanes project on Ambassador at the intersection of Ambassador @ Congress St.

- Adaptive Signal System for vehicle progression

Pinhook (La. 182) – Surrey Street to General Mouton

Average Daily Traffic – 20,000
Functional Classification – Urban Principal Arterial from Evangeline Thruway to General Mouton.; Urban Minor Arterial from Surrey St. to Evangeline Thruway
Traffic control – 3 Signals
Land use – Mainly residential with older
Distance – 1 mile
Major Traffic Generators –Crosses Evangeline Thruway. Crosses railroad track.

Reason for Congestion:
Crosses Evangeline Thruway where most of signal time goes to the Thruway.

Potential Improvements/Recommendations:

- In 2016, as recommended from the 2014 CMP process, a right turn lane was striped on the east approach of Pinhook Road at the Evangeline Thruway intersection.

- Construction of the I-49 Connector could alleviate congestion at this intersection.

- Adaptive Signal System for vehicle progression.

Section 2.9 CMP future tasks and updates

Federal requirements state that updates to the CMP be made every five years. In the next five years following through on the recommendations of the CMP, will require Acadiana MPO staff to perform periodic traffic flow data collection activities (i.e. travel times), as well as occasional traffic surveillance. Working with the Lafayette Transit System, LADOTD, major employers and our Technical Committee the Acadiana MPO will be able to rationally develop more CMP projects for implementation. During the annual development of the Unified Planning Work Program (UPWP), CMP monitoring and maintenance activities will be

included, and any additional special projects needed to carry the CMP objectives forward will be included.

- Update the CMP on the recommended five-year cycle

- Follow data collection methodology for updating travel time on study corridors as well as expenditure of funds to monitor more travel time locations. Corridors that need study but do not have any travel time data.

- Create a task for newly formed Technical Advisory committee to suggest additional corridors to study. Committee would then generate strategies of congestion and then mitigation strategies of congestion for selected corridors. This committees input will be included in the next update of the CMP.

- Include CMP monitoring/maintenance activities in the UPWP

- The MPO will conduct outreach to major employers, surrounding or on identified corridors, to discuss merits of carpooling and participating in the ridesharing program set up through the Travel Demand Management Program

- Look at before and after travel speed data on corridors with projects

- Look at transit ridership and include the impact of this as a prioritization tool in Corridor selection.

APPENDIX A

Travel Time/Delay Study Conditions Utilizing Blue tooth Data Collection Technology

General Conditions:

Starting in 2010 Lafayette Consolidated Government (LCG) installed laptops in certain traffic control cabinets. Some locations were added in 2014. Most of the new locations were along Verot School Rd.

These laptops were used to read if a Bluetooth location was at the signal. If a Bluetooth device was detected, a time stamp was associated with the "hit" on the unique Bluetooth device. The same scenario happened at a downstream signal. If a "hit" with that same unique ID was observed, a travel speed between the two locations was deduced based on the length in between signals and time stamp with the unique ID. The database maintained by these laptops is in a query type platform where all information is readily available.

Figure. 2a-1; Current Bluetooth Reading Locations (denoted with a star)

Completed Travel Time Runs and Mining of the Data

For the Bluetooth data, the sum of records for each of the locations in Figure 2a-1 for the years 2014-2017 was gathered. This data was then further refined to the time periods where larger amounts of traffic occur during peak hours. Both AM (7-9 A.M.) and PM (4-6 P.M.) peaks were examined. The data was then further refined to only Tuesday-Thursday, as this is a more representative sample of weekday traffic. Each location had approximately 5,000 records.

For the smart phone GPS application collection a computer script (code) was developed to calculate average travel speed on the corridors. This information was included with the Bluetooth data. There were limited samples for this data. For example, only one AM (7:30-8:30) and one PM (4:30-5:30) time period on Tuesday-Thursday were observed. However, many times the vehicle could drive on the subject corridor (back and forth) during that time frame were the number of samples obtained.

Once the average travel time for the peaks was calculated the average travel time was then subtracted from the average posted speed limit. The average posted speed limit is an average of the posted speed limit throughout the corridor. For example, from point A to B the posted speed limit might go from 35 to 45 and then to 50. A weighted average of these values has to be calculated to get a true posted speed limit. Subtracting average posted speed limit from average travel speed gave speed deficit per location. These locations were then ranked based off of Largest speed deficits. See Appendix B.

Appendix B Results of Speed Deficit Analysis

The following tables list the segments of corridors listed by speed deficit. Numerically largest to smallest. Segments in Red are from the blue tooth data source, while segments in black originate from the hand collected smart phone app data. Segments highlighted in yellow were flagged and ultimately removed for different reasons.

Appendix B

2017 Speed Deficit Rankings (Strava and Bluetooth data)		
Rank	Location	2017 Speed deficit
1	Youngsville Hwy. La. 92 to La. 182	32
2	Kalsite Saloom from S College Ext to Fue Follet	31.27
3	Kaliste E. Broussard to Ambassador Caffery	31
4	E. Broussard Kaliste Saloom to Johnston	30.2
5	***Verot School from Amb Caffery to Camellia***	***29.3***
6	Ambassador Caffery Frem Boustany to Verot School Rd	28.2
7	Pinhook from Corporate to La Rue France	27.62
8	Camellia @ Academy to Congress @ Guilbeau	27.53
9	Youngsville Hwy. La. 182 to La. 92	27.2
10	Amb Caffery from Bertrand to Guilbeau	27.08
11	Ambassador Caffery SB from Bonaire to Frem Boustany	26.11
12	Kalsite Saloom from Fue Follet to S College Ext	26.11
13	W Congress from Guilbeau to Domingue	25.83
14	Amb Caffery from Guilbeau to Bertrand	25.31
15	Pinhook from Surrey to General Mouton	25.12
16	Bonin Rd. La. 182 to La. 92	25.1
17	S. College W. Bayou Pkwy. To Pinhook	25
18	Ambassador Caffery NB from Frem Boustany to Bonaire	24.61
19	Verot School from Camellia to Amb Caffery	24.35
20	Ambassador Caffery from Guilbeau to Bonaire	24.07
21	Kalsite Saloom from Fue Follet to Martial Ave	23.44
22	Admiral Doyle Jefferson Terrace to Hopkins	23.2
23	W Congress from Domingue to Guilbeau	22.89
24	Johnston @ Main to Louisiana @ Surrey	22.75
25	St. Mary Renaud Dr. to U.S. 90	22.7
26	Amb Caffery from I10 WB Ramp to Bertrand	22.64
27	S. College Pinhook to W. Bayou Pkwy.	22.3
28	S College from W Bayou to Johnston	22.25
29	Johnston E. Broussard to Amb Caff	22.1
30	E. Broussard Johnston to Kaliste Saloom	21.98
31	Pinhook from General Mouton to Surrey	21.94
32	Amb Caffery from Bertrand to I10 WB Ramp	21.76
33	Congress St. Mary to University	21.7
34	Johnston from Main to St Julien	21.61
35	Ambassador Caffery from Bonaire to Guilbeau	21.34
36	Congress @ Guilbeau to Camellia @ Academy	21.3
37	Johnston from Lana to Amb Caffery	21.26
38	Admiral Doyle Hopkins to Jefferson Terrace	21.2
39	Kalsite Saloom from Martial Ave to Feu Follet	20.84
40	Verot School from Pinhook to Camellia	20.79
41	Johnston from St Julien to Main	20.78
42	Johnston from Duhon to Amb Caffery	20.5
43	Johnston from College to Amb Caffery	20.21

Appendix B

2017 Speed Deficit Rankings (Strava and Bluetooth data)		
44	Louisiana @ Surrey to Johnston @ Jefferson	20.19
45	Pinhook from La Rue France to Corporate	20.16
46	Camellia Settlers Trace to Kaliste Saloom	20.1
47	Congress University to St. Mary	19.7
48	Verot School from Camellia to Pinhook	19.24
49	Johnston from Lana to Arnould	18.48
50	Pinhook from Corporate to Bonin	18.1
51	Johnston Amb Caff to E. Broussard	17.9
52	Pinhook from General Mouton to La Rue France	17.69
53	Johnston from Amb Caffery to College	17.5
54	University from Madeline to I10 WB Ramp	17.25
55	Pinhook from Bonin to Corporate	16.98
56	Bonin Rd. La. 92 to La. 182	16.9
57	Kaliste Saloom S. College to U.S. 90	16.5
58	Johnston from Arnold to College	16.49
59	Congress from St Mary to Foreman	16.2
60	S College from Johnston to W Bayou	16.18
61	Johnston from St Julien to College	16.13
62	Johnston from College to Arnold	16.09
63	Johnston from Amb Caffery to Duhon	15.91
64	Johnston from Arnold to Lana	15.82
65	University from McKinley to St Landry	15.09
66	La. 182 Bonin to Morgan Avenue	15
67	University from Madeline to Simcoe	14.88
68	University from I10 WB Ramp to Madeline	14.62
69	Camellia Kaliste to Settlers Trace	14.6
70	University from St Landry to McKinley	14.59
71	S. Lewis U.S. 90 to Admiral Doyle	14.3
72	Univeristy from Simcoe to Madeline	13.83
73	Kaliste Saloom U.S. 90 to S. College	13.7
74	Congress from Foreman to St. Mary	13.33
75	Univeristy from St Landry to Simcoe	12.49
76	Kaliste Ambassador Caffery to E. Broussard	12
77	Ambassador Caffery Verot School Rd. to Frem Boustany	12
78	Johnston from Amb Caffery to Lana	11.66
79	University from Simcoe to St Landry	11.65
80	La. 182 Morgan to Bonin Avenue	11.4
81	St. Mary U.S. 90 to Renaud Dr.	11.1
82	Congress from Foreman to Guilbeau	10.55
83	La. 347/La. 352 Old Trash Pile Rd. to I-10	10.5
84	University I-10 to Gloria Switch	10.4
85	Congress from Guilbeau to Foreman	10.21
86	Pinhook from La Rue Fracne to General Mouton	9.88
87	Johnston from College to St Julien	9.62
88	La. 347/La. 352 from I-10 to Old Trash Pile Rd.	9.2
89	Camellia from Academy to Settler Trace	7.69
90	University Gloria Switch to I-10	7.5
91	Camellia from Settlers Trace to Academy	7.25
92	S. Lewis Admiral Doyle to U.S. 90	5.9

APPENDIX C

CMP RECORD OF PUBLIC COMMENT AND ADOPTION

DESCRIPTION	DATE	RESOLUTION
TTC	7/11/18	7-2018
Public Comment	7/16/18- 7/30/18	
Approval by TPC	7/18/18	7-2018

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