

CRTPA CONGESTION MANAGEMENT PLAN (CMP)

Type of Item: Action

STATEMENT OF ISSUE

The CRTPA's <u>Congestion Management Plan (CMP)</u>, last adopted in 2018, has recently been developed for Board approval. The CMP provides a process for managing congestion through an analysis of upto-date information on transportation system performance. The update provides a focus on the identification of projects on critical corridors to address identified congestion and safety issues.

CRTPA COMMITTEE ACTIONS

The CRTPA's Technical Advisory Committee and Citizen's Multimodal Advisory Committee met on March 5 and both committees voted to recommend the CRTPA approve the CMP.

RECOMMENDED ACTION

Option 1: Approve the CRTPA Congestion Management Plan

LATEST INFORMATION

At the <u>January 16, 2024, CRTPA Retreat</u>, an update and detailed presentation on the Draft CMP was provided.

BACKGROUND

As a Transportation Management Area (defined as an urbanized area with a population over 200,000), the CRTPA is required to develop a Congestion Management Process. Pursuant to the <u>Federal</u> Highway Administration:

"A congestion management process is a systematic and regionally accepted approach for managing congestion that provides accurate, up-to-date information on transportation system performance and assesses alternative strategies for congestion management that meet State and local needs. A CMP is required in metropolitan areas with population exceeding 200,000, known as Transportation Management Areas (TMAs). Federal requirements state that in all TMAs, the CMP shall be developed and implemented as an integrated part of the metropolitan

transportation planning process; however, Federal regulations are not prescriptive regarding the methods and approaches that must be used to implement a CMP."

Furthermore, the FHWA's "Congestion Management Process: A Guidebook, 2011" notes that such a process includes:

- Development of congestion management objectives
- Establishment of measures of multimodal transportation system performance
- Collection of data and system performance monitoring to define the extent and duration of congestion and determine the causes of congestion
- Identification of congestion management strategies
- Implementation activities, including identification of an implementation schedule and possible funding sources for each strategy
- Evaluation of the effectiveness of implemented strategies

The CRTPA's current CMP was adopted in 2018 and although federal requirements do not mandate a schedule for updating the document, the CRTPA initiated the update to the CMP in 2022. The update was led by Halff and Associates, one of the CRTPA's general planning consultants, along with Kittelson & Associates serving as a sub-consultant.

The update to the CRTPA's CMP focused on evaluating and addressing both congestion and safety in the CRTPA region along with the identification of potential strategies designed to improve both recurring and non-recurring congestion and safety on critical corridors, as discussed below.

With regards to congestion, analyses of recurring and non-recurring congestion were conducted. Recurring congestion occurs during peak travel periods commonly known as the "rush hour". Non-recurring congestion occurs due to construction, inclement weather, accidents, and special events. Resultant from the analyses was the identification of roadways within the CRTPA region that are not meeting level-of-service standards as well as roadways having the worst travel time reliability.

In addition, the CMP analyzed safety issues within the CRTPA region. Resultant from this analysis is the identification of intersection and segments throughout the region that have identified safety issues. The analysis the identification of potential countermeasures to address identified safety concerns.

Ultimately, the CMP has identified potential issues from which further study is warranted related to addressing both congestion and safety within the CRTPA region.

The following provides a summary related to the development and findings of the CMP.

CMP DEVELOPMENT AND FINDINGS

As noted above, the CMP update is focusing on an analysis of congestion and safety issues in order to identify potential improvements on the CRTPA region's roadways. The following provides a discussion related to each focus of the CMP (congestion and safety).

CONGESTION/ Congested segments in the CRTPA region were identified and analyzed using the following methods: <u>Level of Service (LOS) analysis</u> and <u>Planning Time Index (PTI)</u>.

<u>LOS ANALYSIS</u> – Using Florida's Generalized Service Volume Tables, an assessment was conducted resulting in the identification of roadway segments within the CRTPA region that are failing. As may be expected, the region's most congested roadways are located in the urban areas of the capital region. The following provides a snapshot of the locations identified as congested segments in the CRTPA region, including an urban inset. Note: specific segments identified on the maps below are included in table format in the CMP document.

CRTPA Region/LOS Analysis

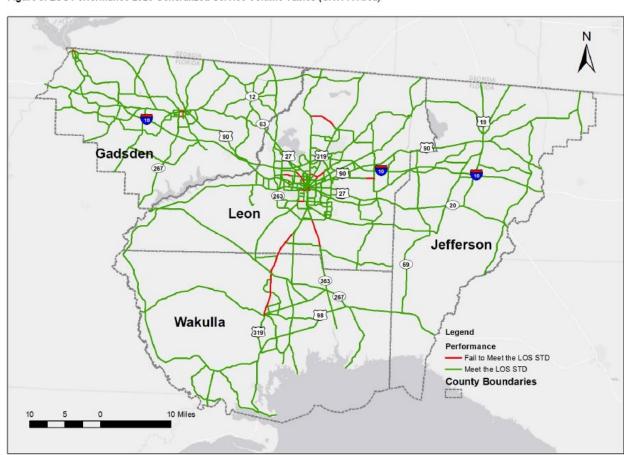


Figure 9: LOS Performance 2020 Generalized Service Volume Tables (CRTPA Area)

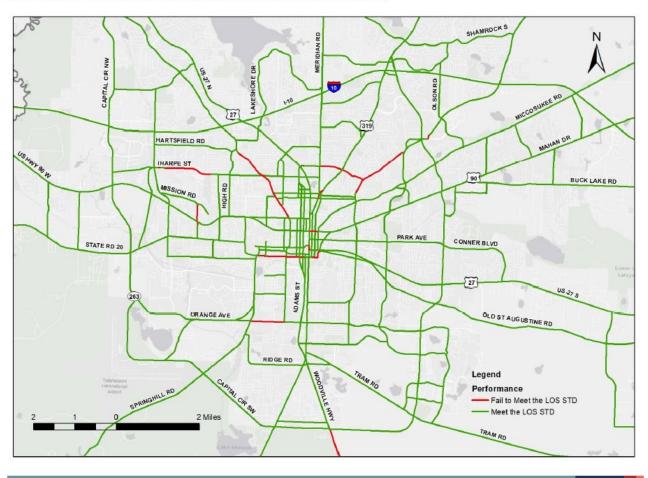
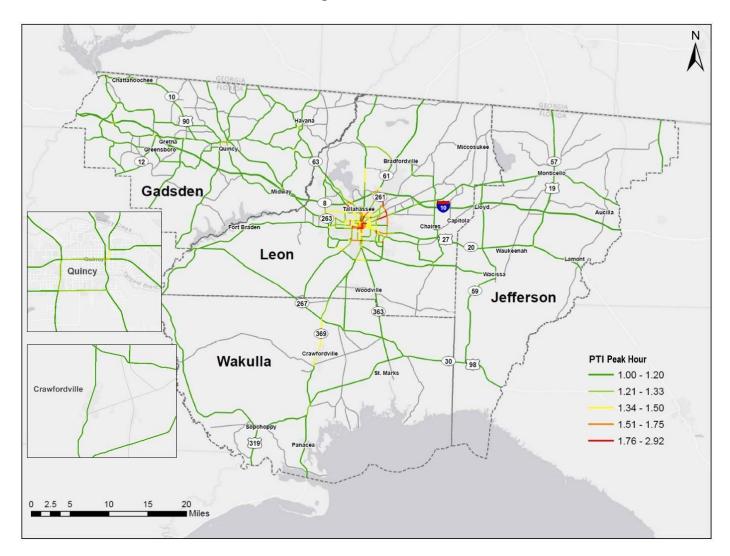


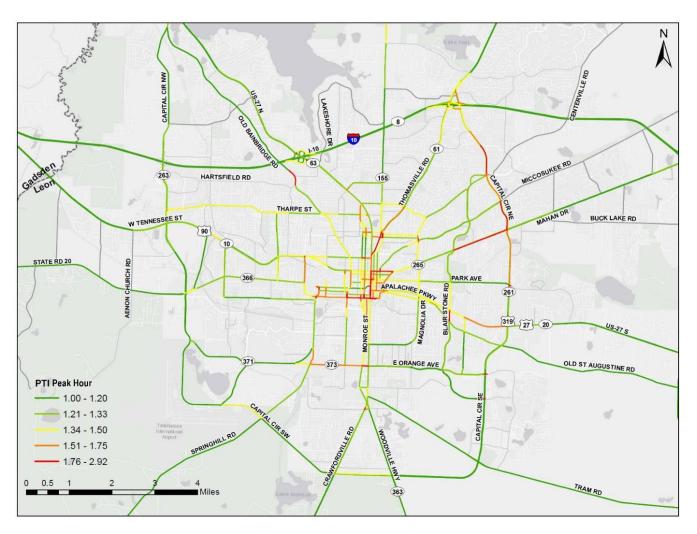
Figure 10: LOS Performance 2020 Generalized Service Volume Tables (Urban Inset)

<u>Planning Time Index</u> – <u>Planning time index</u> represents the total travel time that should be planned when an adequate buffer time is included (the buffer index represents the extra buffer time that most travelers add to their average travel time when planning trips to ensure on-time arrival). PTI analysis was measured for both peak (afternoon) hour and daily. The following maps reflect PTI for peak hour in the region.

CRTPA Region/Peak Hour PTI



Urban Inset/Peak Hour PTI



The top 20 locations in the CRTPA Region with the highest Peak Hour PTI are listed below:

Table 6: Peak Hour PTI (Top 20 Locations)

Rank	County	Location	PTI	Speed (MPH)	5th Percentile Speed (MPH)
1	Leon	Northbound S Monroe St between E Madison St and E Gaines Street	2.92	8.7	3.0
2	Leon	Northbound Varsity Dr E intersecting with W Pensacola Street	2.74	5.5	2.0
3	Leon	Southbound Appleyard Dr intersecting with W Tennessee Street	2.51	14.2	5.7
4	Leon	Westbound Miccosukee Rd intersecting with Capital Circle NE	2.25	12.5	5.5
5	Leon	Southbound Railroad Ave between W Madison St and W Gaines Street	2.24	5.1	2.3
6	Leon	Northbound S Monroe St between Jefferson St and Apalachee Pkwy	2.22	9.5	4.3
7	Leon	Eastbound W Gaines St between S Monroe St and S Duval Street	2.22	8.1	3.7
8	Leon	Eastbound Betton Rd intersecting with Thomasville Road	2.18	13.0	6.0
9	Leon	Westbound Orange Ave E intersecting with Capital Circle SE	2.17	13.9	6.4
10	Leon	Northbound S Monroe St between W Tennessee St and E Jefferson Street	2.12	9.1	4.3
11	Leon	Southbound N Franklin Blvd intersecting with E Tennessee Street	2.12	12.3	5.8
12	Leon	Off-ramp from WB I-10 (SR 8) intersecting with N Monroe Street	2.12	4.1	1.9
13	Leon	Off-ramp from EB I-10 (SR 8) intersecting with N Monroe Street	2.10	6.2	2.9
14	Leon	Southbound N Meridian St between E Virginia St and E Tennessee Street	2.09	6.3	3.0
15	Leon	Westbound E Tennessee St between N Franklin Blvd and S Monroe Street	2.08	9.7	4.7
16	Leon	Northbound S Duval St between W Madison St and W Gaines Street	2.06	13.2	6.4
17	Leon	Northbound S Monroe St between E Madison St and Apalachee Pkwy	2.00	10.0	5.0
18	Leon	Northbound S Bronough St between W Gaines St and W Madison Street	2.00	8.1	4.1
19	Leon	Eastbound E 6th Ave between N Gadsden St and Thomasville Road	1.99	9.6	4.8
20	Leon	Eastbound Gaines St intersecting with S Monroe Street	1.96	12.9	6.6

SAFETY/ An evaluation of the safety of the CRTPA region's roads provided an important focus of the CMP's update. This effort included an analysis focused on emphasis areas related to bicycles, pedestrians, intersections and lane departures. Fatal and serious crashes were analyzed to locate *segment* hot spots and *intersection* hot spots in the region. The following tables provide the hot spot segments (top 10) and intersections (top 10) with the highest crash rates in the region.

Roadway Segments/Top 10 Hot Spot Locations:

Rank	Location	County	AADT	Miles	Fatal Crashes	Serious Injury Crashes	Crash Rate (per 100 million VMT)
1	Railroad Avenue between West Gaines Street and Robert and Trudie Perkins Way	Leon	6,300	0.45	0	3	57.59
2	St Augustine St between S Woodward Ave and South Copeland Street	Leon	7,400	0.44	0	3	50.66
3	Hardaway Hwy between Lincoln Dr (CR 269A) and Cochran Road	Gadsden	550	6.31	2	1	47.40
4	Duval St between W Pensacola St and W Park Avenue	Leon	8,500	0.41	0	3	47.18
5	W Pensacola St between Appleyard Drive and Mabry Street	Leon	18,800	0.59	2	5	34.40
6	Smith Creek Rd between Stoutamire Landing Rd and the County Boundary between Leon/Wakulla County	Leon	600	8.29	1	2	33.04
7	Old Lloyd Rd between US 90 and Rabon Road	Jefferson	1,200	4.51	0	3	30.39
8	Drifton-Aucilla between S Jefferson and Salt Road	Jefferson	700	8.14	0	3	28.84
9	Providence Road (CR 274) between Selman Street and Hosford Highway	Gadsden	1,500	4.25	1	2	25.80
10	Old Plank Road between Tram Road and Natural Bridge Road	Leon	1,400	6.38	2	2	24.53

Intersections/Top 10 Hot Spot Locations:

. . . .

Rank	Location	County	Fatal Crashes	Serious Injury Crashes	Entering Traffic Volume
1	US 98 and Woodville Hwy	Wakulla	2	1	4,875
2	Apalachee Pkwy and WW Kelly Road	Leon	1	2	12,500
3	Orange Avenue and S. Adams Street	Leon	4	3	42,400
4	W Tennessee St and Stadium Drive	Leon	0	7	45,800
5	W Tennessee St and Geddie Road	Leon	0	3	21,900
6	North Monroe Street and Fred George Road	Leon	2	2	29,350
7	Capital Circle Southeast and Woodville Hwy.	Leon	0	4	32,350
8	North Monroe Street and John Knox Road	Leon	0	4	46,150
9	Old Bainbridge Road and W. Tharpe Street	Leon	0	3	37,750
10	North Monroe Street and Lakeshore Drive	Leon	0	3	43,000

Once identified, further analysis was conducted on the top identified hot spot segments and intersections. Specifically, a multi-step crash causation analysis occurred that identified potential countermeasures to reducing crashes at the above identified locations. Details of these analyses are included in the CMP.

Next Steps

Subsequent to adoption of the CMP, information related to congestion and safety issues will be reviewed including to facilitate the studying of identified needed improvements.

RECOMMENDED ACTION

Option 1: Approve the CRTPA Congestion Management Plan

(Recommended)

Option 2: Provide other direction.

<u>ATTACHMENT</u>

Attachment 1: Link to Draft CMP