



BOARD OF COUNTY COMMISSIONERS

**Public Works Department  
Traffic Operations Program**

2725 Judge Fran Jamieson Way  
Building A, Room 211

January 11, 2023

James M. Taylor, PE  
Kimley-Horn, Inc.  
189 S Orange Ave, Suite 1000  
Orlando, FL 32801  
Via Email: james.taylor@kimley-horn.com

**Re: Merritt Island Apartments (aka Fortenberry Apartments) – Traffic Impact Analysis (TIA)**

Dear Mr. Taylor:

Brevard County Traffic Engineering is in receipt of the Merritt Island Apartments TIA dated December 2022. In response to this submittal, County review comments are provided below:

**Roadway Segment Analyses**

- 1) Table 1 - Existing Roadway Segment Analysis (Daily): For S S Plumosa St from Fortenberry Rd to Cone Rd (ID #116), use 2018 AADT instead of 2020 counts and grow them to 2022. Comment applies to Table 6 – Background Roadway Segment Analysis (Daily) and to Table 11 – Background Roadway Segment Analysis (Daily).
- 2) Per Chapter 62-602.d.1.c of the Brevard County Land Development Regulations, the adopted Level of Service (LOS) for all Brevard County segments is E. Revise all roadway segment tables.
- 3) The project distribution on Fortenberry Rd from S Plumosa St to Sykes Creek Pkwy (#154) is 100%. Comment applies to Table 11 – Buildout Roadway Segment Analysis (Daily) and Table 12 – Buildout Roadway Segment Analysis (PM Peak Hour).

**Intersection Analyses and Synchro**

- 4) Include the signal timing sheets in the appendices.
- 5) SR 520 at Courtenay Pkwy:
  - a) The adopted LOS for state roads is D. Based on this, the intersection does not meet the adopted LOS during any of the analysis periods and scenarios. Additionally, an analysis with improvements is needed under background conditions.
  - b) AM analysis: The reference phase is 6, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.
  - c) PM analysis: The reference phase is 2, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.

6) SR 520 at S Plumosa St:

- a) AM and PM analyses: The reference phase is 2, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.
- b) PM analysis: Revise the recall mode for phase 3 to "None". Comment applies to Existing, Background, and Buildout conditions.

7) SR 520 at Sykes Creek Pkwy:

- a) AM and PM analyses: The reference phase is 6, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.

8) Courtenay Pkwy at Fortenberry Rd:

- a) Code phase 3 as phase 8 and provide HCM 6<sup>th</sup> results. Comment applies to all analysis periods and scenarios.
- b) There is no westbound right overlap. See Table 1.5.2.1 of the signal timing sheet. Comment applies to all analysis periods and scenarios.
- c) AM and PM analyses: The reference phase is 2, not 2 and 6. Comment applies to Existing, Background, Background with Improvements, and Buildout conditions.
- d) AM analysis: Revise the minimum initial green for phase 3. Comment applies to Existing, Background, and Buildout conditions.
- e) PM analysis: Revise the offset. Comment applies to Existing, Background, Background with Improvements, and Buildout conditions.

9) S Plumosa St at Fortenberry Rd:

- a) For uncoordinated intersections the signal controller references the max I or max II timing depending on if the time-of-day schedule or base operations menu dictates. In Synchro, the 'Total Split' time = Max I (or II) + Yellow Change + Red Clearance. The Synchro user guide and NCHRP Report 812 provide more guidance and in-depth discussion. Comment applies to all analysis periods and scenarios.
- b) Swap phases 7 and 8 and provide HCM 6<sup>th</sup> results. Comment applies to all analysis periods and scenarios.

Should you have any questions, please contact me at 321-633-2077.

Regards,

*Veronica M. Figueroa-Chanza*

Veronica Figueroa-Chanza, PE  
Transportation Engineer

Cc: Corrina Gumm, PE, Traffic Operations Manager  
Devin Swanson, Engineer II  
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