



Florida Department of Transportation

RON DESANTIS
GOVERNOR

14000 SR 64 East
Bradenton, Florida 34212

KEVIN J. THIBAUT, P.E.
SECRETARY

June 20, 2019

RE: 1ST REVIEW COMMENTS
SELBY GARDENS IMPROVEMENTS
DRIVEWAY PERMIT NUMBER: 2019-A-194-00031
DRAINAGE PERMIT NUMBER:
SR NUMBER: 45/US 41, SECTION: 17020, M.P. +/-

The Department has reviewed the above mentioned project and has the following comments. The One Stop Permitting System will prompt you to upload Additional Information. Please submit the requested documents when ready to the OSP website. Should you have any issues my contact information is listed below.

Access Management

We have reviewed the Traffic Impact Analysis, dated April 2019, the construction improvement plans, dated May 2019, and project-related correspondence, for the above-referenced project. Although it will not affect the results of the study analysis, it should be noted that there were several discrepancies between the land uses and sizes identified in the traffic study and those provided in the pre-app meeting with the Department. One discrepancy involved land use sizes being higher in the study (increase from 10 to 60 percent depending upon the land use) than those identified at the meeting although the land use projections shown in the study were based upon a concept plan from November 2018. Second, additional uses were included in the study beyond those discussed at the meeting. Regardless, here are comments on the information provided:

1. The volume projections for the development suggest the parking garage is significantly oversized. What was the basis for the size of the parking garage. Further, the study concludes that the applicant should provide a detailed parking plan demonstrating how full capacity parking demand for special events will be handled in order to minimize impact to traffic on the adjacent streets. This analysis should be provided.
2. The study identified multiple turning lane improvements being recommended near the project site at the new U.S. 41 & Project Driveway and the U.S. 41 & Orange Avenue intersections, including extending existing left-turn lanes on U.S. 41 and adding a second left-turn lane on the northbound Orange Avenue approach. However, no turn lane length calculations (for queue and deceleration) were provided to verify required distances, including those shown on the construction plans. Please provide projected queues and the appropriate turn lane length documentation and revise any analysis accordingly.

3. The study references observations that occurred in June in the study area. Based on the peak season conversion factors, peak season volumes are approximately 25% higher than June volumes. Recognizing that the June observations occurred in June of 2018, were any additional observations conducted during peak season conditions? If not, please provide additional thoughts regarding how peak-season conditions might differ from the observations that were conducted as many of the conclusions are based on these observations.
4. There appears to be some discrepancies between the intersection volumes shown in the intersection volume worksheets and the figures and Synchro analysis results, specifically at the U.S. 41 & Orange Avenue intersection, for future year scenarios. Please resolve these discrepancies and revise any analysis accordingly.
5. The study is showing a reduction in through lanes from three (3) to two (2) on the eastbound approach of the U.S. 41 & Orange Avenue intersection (which began upstream at Palm Avenue) for the future year scenarios. Although it was shown that through buildout conditions, the through movement (which included the right-turn movement) is expected to operate at level of service (LOS) D conditions, the right-turning movement will include approximately 300 vehicles in the weekday PM peak hour. This number typically translates into a need for an exclusive right-turn lane which will provide benefit and overall improved operations at the intersection. Please justify why a right-turn lane should not be considered at this approach, and revise any analysis, accordingly.
6. At the pre-app meeting, FDOT staff had queuing concerns along eastbound U.S. 41 and recommended a right-in only movement at the proposed project driveway into the new parking garage depending outcome of the traffic study. A review of the Synchro analysis provided in the study indicated that the eastbound through movement queue is expected to be at least approximately 450 feet in length which would extend a minimum of 75 feet west of Palm Avenue. In addition, the proposed restriction of the right-turning movement out of the garage access driveway at Orange Avenue would force motorists to turn right on U.S. 41, as proposed, and then turn right at Orange Avenue to access areas south of U.S. 41 along Orange Avenue. This circuitous route will add more traffic and decrease operating efficiency of the U.S. 41 & Orange Avenue intersection, including potential additional safety conflicts between vehicles and pedestrians and bicyclists. Based upon the above information, the allowance of only a right-turn in only movement into the parking garage along U.S. 41 appears to be appropriate as well as reconsidering the right-turn out restriction on the Orange Avenue access driveway. Please revise any appropriate analysis related to this redistribution of traffic, accordingly.

Driveway:

7. Depict the distance from each driveway connection to adjacent driveway connections or side streets up to 1,320 feet if the posted speed limit is over 45mph. And, up to 660 feet if the posted speed limit is 45 mph or less. The distances should be measured from edge of pavement to edge of pavement. You can use an aerial view on an exhibit to accomplish this in order to not clutter the site plan.
8. Driveways that are to be remove should be depicted on the plan. Restore any driveways to be removed to the right of way line.

Traffic Operations

Please refer to the attached file for comments

<https://osp.fdot.gov/api/document/b1782bbb-1aef-48c9-8a90-aa64011a050c>

<https://osp.fdot.gov/api/document/e0bccbd7-e41d-410c-a270-aa640119ed6b>

<https://osp.fdot.gov/api/document/92a785e4-9ef4-46c7-9d78-aa640119cf68>

Signal Systems

Signals Systems Comment 1 - Please provide the Synchro file for US 41 at S. Orange Ave for review. You can send the file to nathan.poole@dot.state.fl.us and renjan.joseph@dot.state.fl.us. Please ensure the Synchro file includes the updated approach volumes as requested by Access Management, and the proposed geometry meets or exceeds the current signal operation at US 41 at S. Orange Ave.

Signals Systems Comment 2 - Please provide updated basic controller timings using the latest standards. I've attached the January 2017 Guidelines and All-Red Procedure to this comment. Please ensure the vehicle and pedestrian clearance intervals are calculated per the January 2017 Guidelines. Please update the controller timings chart per Attachment 3 (Controller Timing Chart) in the Guidelines. Please include the emergency vehicle preemption timing chart as shown in Attachment 7 (Emergency Vehicle Preemption Timing Chart).

<https://osp.fdot.gov/api/document/78878639-ea27-4706-a41c-aa570100a39a>

<https://osp.fdot.gov/api/document/cdedb11a-72f4-4f37-9978-aa5701008d36>

<https://osp.fdot.gov/api/document/688f197e-39ba-4702-85d4-aa570100621c>

<https://osp.fdot.gov/api/document/da67d519-69bb-4aee-ae4c-aa5701001522>

Signals Systems Comment 3 - Was consideration given to using 4-section flashing yellow arrow signal heads for Phases 1 and 5 instead of the 3-section signal heads shown in the plans? If so, please indicate why the protective only operation was chosen over the protective/permissive operation. If not, please review the requirements in the FDOT TEM and Table 212.11.1 of the FDM to determine if protective/permissive operation with 4-section flashing yellow arrow signal heads is more appropriate for Phases 1 and 5.

Signals Systems Comment 4 – Please add the following note to the plans: “AT LEAST THREE (3) WEEKS PRIOR TO TIMING IMPLEMENTATION AND PROGRAMMING OF THE CONTROLLER, REQUEST UPDATED SIGNAL TIMINGS (BASIC CONTROLLER AS WELL AS COORDINATION) FROM FDOT TRAFFIC SIGNAL SYSTEM MANAGER (863-519-2746). PROVIDE FDOT WITH ALL ‘AS-BUILT’ INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS. PROGRAM THE CONTROLLER AS PER THE TIMINGS PROVIDED BY FDOT.”

Signals Systems Comment 5 – Please add the following note to the plans: AT THE COMPLETION OF THE PROJECT, PROVIDE AS-BUILT PLANS IN ELECTRONIC FORM (PDF) TO: FDOT TRAFFIC OPERATIONS RENJAN JOSEPH, P.E., ARTERIAL MANAGEMENT SYSTEM ENGINEER 801 N. BROADWAY AVE P.O. BOX 1249

BARTOW, FL 33830-1249 EMAIL: RENJAN.JOSEPH@DOT.STATE.FL.US PHONE: 863-519-2746

Signals Systems Comment 6 - Please revise the loops on S. Orange Ave to be a minimum of 30 feet in length.

Signals Systems Comment 7 - Please add a column to the Loop Detector chart designating the Phase associated with each loop. Also, please add a 3 seconds delay time for loops L-3A and L-7A.

Signals Systems Comment 8 - Please add a note that defines the flash operations for the signal.

Signals Systems Comment 9 - Why is the "No Turn on Red" sign for the EB approach being removed?

Signals Systems Comment 10 - For the signal head details on the top left of the sheet, please include the signal heads that are existing to remain.

1.) Your project falls within the limits of the Sarasota County Advanced Traffic Management System (ATMS). The Sarasota County ATMS is owned by the FDOT while the County operates and maintains the system as part of the Traffic Signal Maintenance and Compensation Agreement. The ATMS infrastructure within this project's limits includes underground fiber optic communication infrastructure along US 41. I have attached the as-built plans to this comment for your information. 2.) Based on the permit plans, it appears this project will be reconstructing US 41 and widening South Orange Ave near the existing ATMS infrastructure. Please show the existing ATMS infrastructure in the permit plans and confirm if it will be impacted by this project. Any impacts to the existing ATMS infrastructure is the responsibility of the permittee to resolve.

Roadway Design

1. Roadway Comments attached.

<https://osp.fdot.gov/api/document/a70f5e90-0850-43b8-9a52-aa5c01352563>

Drainage

1. S1 drainage review comments are attached.

<https://osp.fdot.gov/api/document/94d7b8da-d034-4c0a-b5d1-aa560185042f>

DISCLAIMER STATEMENT

Our review comments are not intended to be inclusive of all errors and omissions. Our comments are also not intended to affect the scope of work or to be contrary to FHWA policy, FDOT design criteria or sound engineering practice. The Consultant is solely responsible for the technical accuracy, engineering judgment, and quality of his work.

If you have any questions concerning our comments, please call the appropriate number list below.

Kim Strickland	Access Management	863-519-2236
Garfield Howell	Traffic Operations	863-519-2773
Nathan Poole	Signal System	813-526-0512
Rob Bliven	Roadway Design	863-519-2481
Binh Duong	Drainage Consultant	

Sincerely,
Valerie A. Everts
Permits Coordinator II
Manatee Operations