



October 23, 2019

Mr. Brandon Creagan, MCRP, LEED Green Associate
Planner
Planning Department
City of Fort Pierce
100 N. US Hwy 1
Fort Pierce, FL 34950

Re: Mistry Creek Preserve – Comment Response Letter
Our Reference Number: 19-310

Dear Mr. Creagan,

We are in receipt of the Technical Review Committee (TRC) comments, as received by this office via email on August 20, 2019. Please find below all comments received, along with our responses to each comment in ***bold italics***.

CITY OF FORT PIERCE PLANNING DEPARTMENT

1. Provide a map that pinpoints where the transit stop that you are using for the density bonus for is located. You could use a buffer map with a ¼ mile radius that shows that the transit stop is within that buffer.

Response: The requested graphic has been provided herewith this resubmittal.

2. Provide a lighting plan pursuant to City Code 22-60(j)1(b).

Response: A typical light pole detail has been added to Sheet SP-1, demonstrating a min. 14' mounting height, along with general light pole locations denoted on the plan graphics. A detailed lighting and photometric plan will be submitted for review at time of detailed construction plans submittal to the building department.

3. If not already noted, provide stop signs at the parking lot near the entrance on Kirby Loop / SW 35th Street from the sidewalk outside of the development to the clubhouse for pedestrian access.

Response: Preliminary striping has been added to the Site Plan. A detailed signage and striping plan shall be submitted for review at time of detailed construction plans submittal to the building department.

4. Provide a painted crosswalk outside of the development to the clubhouse for pedestrian access.

Response: Preliminary striping has been added to the Site Plan. A detailed signage and striping plan shall be submitted for review at time of detailed construction plans submittal to the building department.

5. Specify the sign dimensions, square-footage, and height as this must be a part of the package that is reviewed by the City Commission.

Response: Detailed construction plans for the Project I.D. sign will be submitted for review at time of detailed construction plans submittal to the building department.

6. Ensure that all refuse collection areas have a pedestrian access door.

Response: As proposed and noted in the typical refuse enclosure detail on Sheet SP-1, all proposed refuse enclosures have pedestrian access.

7. Before a Certificate of Occupancy is issued, provide a landscape bond for all proposed landscaping pursuant to City Code 22-180.

Response: Acknowledged.

CITY OF FORT PIERCE ENGINEERING DEPARTMENT

1. The property is comprised of thirteen (13) separate parcels of land that will require unification prior to issuance of any building permits. The applicant shall provide information as to whether the parcels will be unified by the recordation of a Unity of Title or by formal Plat.

Response: A Unity of Title will be submitted to the St. Lucie County Property Appraiser prior to issuance of building permits.

2. Please revise the proposed driveway aprons from asphalt to concrete as per City of Fort Pierce Code of Ordinances Sect. 17.

Response: Acknowledged; the requested revision has been made.

3. ADVISORY COMMENT: Being as the property borders S. 25th Street and S. 37th Street, both of which are owned and maintained by St. Lucie County, coordination with SLC regarding required right-of-way improvements and possible right-of-way acquisition is required.

Response: Acknowledged.

4. The Survey reflects a missing segment of sidewalk situated at the south end of the property along S. 35th Street; please incorporate this sidewalk connection into the design plans.

Response: Please refer to comment response #4, under "St. Lucie County Public Works".

5. The site plan shall indicate the location of all stop signs, stop bars, and other pertinent traffic control devices.

Response: A detailed signage and striping plan shall be submitted for review at time of detailed construction plans submittal to the building department.

6. The site plan shall identify the width of the S. 35th Street driveway.

Response: As requested, the requested dimension has been provided for.

CITY OF FORT PIERCE BUILDING DEPARTMENT

1. Building official or his representative has no comment at the time of this meeting, but reserves the submission of comments upon completion of the official plan review.

Response: Acknowledged.

2. Any construction will need to meet the requirements of the Florida Building Code 6th Edition.

Response: Acknowledged.

3. Will need to meet Fire Code.

Response: Acknowledged.

4. Sprinkler system is required.

Response: Acknowledged.

5. Smoke alarm system is required.

Response: Acknowledged.

CITY OF FORT PIERCE POLICE DEPARTMENT

1. Temporary approval granted at this time, pending a photometric survey. Please ensure the project's lighting meets or exceeds the standard set forth by City Code.

Response: Acknowledged. A typical light pole detail has been added to Sheet SP-1, demonstrating a min. 14' mounting height, along with general light pole locations denoted on the plan graphics. A detailed lighting and photometric plan will be submitted for review at time of detailed construction plans submittal to the building department.

FORT PIERCE UTILITIES AUTHORITY – WATER / WASTE WATER ENGINEERING

1. Approved – FPUA has an 8-inch water main, and a 10-inch force main on S. 35th Street to provide water and sewer services to this location. Developer's engineer will be required to submit 3 sets of utility plans to Water and Waste Water Engineering for review and approval.

Response: Acknowledged.

FORT PIERCE UTILITIES AUTHORITY – ELECTRICT & GAS ENGINEERING

1. Approved – Electrical Engineering will need 10-foot wide easements for anywhere that FPUA will be running its electric lines and transformers.

Response: Acknowledged.

ST. LUCIE COUNTY PUBLIC WORKS

1. A review of the traffic study by an outside consultant may be required. at the cost of the applicant.

Response: Acknowledged;

2. Current traffic conditions and access to the school site shall be provided in the traffic report.

Response: See memo from Kimley-Horn, attached.

3. S. 35th Street is identified on the County's Right-of-Way Protection Plan as a future 80' ROW. A dedication of one half of the remaining required ROW (preliminary indication of 5') dedication will be required.

Response: Acknowledged; the appropriate ROW dedication has been provided for and is so noted on the revised plan graphics.

4. The sidewalks along S. 35th Street are in substandard condition and will be required to be replaced as conditioned with the ROW permit.

Response: Acknowledged; the sidewalk shall be reconstructed commensurate with site development activities and shall be completed prior to issuance of Certificate of Occupancy.

5. The County has concerns with the traffic movements at the driveway on S. 35th Street. Turn lanes may be required.

Response: See memo from Kimley-Horn, attached.

6. Subsequent to TRC approval, the applicant may submit the required documents to Grant Chamber, P.E. in the Engineering Division. Documents include a driveway permit application, a ROW permit Application, two sets of plans, and other appropriate information. In accordance with the permit and Land Development Regulations, the applicant shall retain the EOR for the site inspections and final certification.

Response: Acknowledged; the County's coordination efforts in this regard are appreciated.

7. A Road Improvement Agreement may be required for any permanent improvements proposed within the County ROW.

Response: Acknowledged.

ST. LUCIE COUNTY ENGINEERING DIVISION – SURVEY

1. Please add reference Benchmark to the Surveyor's Notes.

Response: The requested revision has been made.

2. Please add accuracy statement based on expected use per Ch. 5J-17.051(2)(a), and (b).

Response: The requested revision has been made.

3. Please use leaders to indicate the ROW lines along Virginia Ave.

Response: The requested revision has been made.

4. Please add a note on Sheet 1 explaining whether or not corners were set when they were not in agreement with your calculated locations.

Response: The requested revision has been made.

ST. LUCIE COUNTY FIRE DISTRICT

1. Please submit a complete application for Development/Site Plan review.

Response: The referenced Application has been submitted to the SLCFD.

2. Fire District review fees are due at the time of submittal. An abbreviated fee schedule is included on the application form.

Response: The required fees have been submitted to the SLCFD.

3. Please provide an electronic copy of the site plan (pdf format).

Response: An electronic copy of the site plan will be transmitted subsequent to site plan approval by the City Commission.

4. A separate review and permit is required for Underground Fire Mains connected to standpipes or sprinkler systems.

Response: Acknowledged.

5. Fire hydrants (shall be) are provided for buildings other than detached one and two-family dwellings IAW both of the following 1) The maximum distance to a fire hydrant from the closes point in the building shall not exceed 400'; 2) The maximum distance between fire hydrants shall not exceed 500'. NFPA 1:18.5.3. Please provide fire flow calculations for hydrants.

Response: Acknowledged.

6. An approved water supply capable of supplying the required fire flow for fire protection (shall be) is identified to all premises upon which facilities, buildings or portions of buildings which are to be constructed or moved into the jurisdiction. The approved water supply shall be in accordance with NFPA 1:18.4. See “Needed NFPA Fire Flow Calculator Spreadsheet”.

Response: Acknowledged.

7. Security gates must either be manned 24-hours/day or provide access control key switch on the control panel to allow for Fire Department entry in an emergency. Security gates must maintain a clear width of 12’ when open and provide a means to open gates manually upon loss of power.

Response: Acknowledged; however, security gates are not contemplated at this time.

8. The distance allowed between fire department connection and a fire hydrant shall be no more than 150’ as a vehicle travels.

Response: Acknowledged.

9. Fire department connections shall be located on the street side of buildings and shall be located and arranged so that hose lines can be readily attached. To the inlets without interference from any nearby objects, including buildings, fences, landscaping, or other fire department connections shall be based upon the access requirements of the fire department.

Response: Acknowledged.

It has been our pleasure to provide you with the above responses for your review. Please do not hesitate to contact me directly should you have any questions or concerns, or should you require additional information.

Respectfully,



Brian Nolan, AICP, ASLA
Senior Land Planner/Landscape Architect



October 25, 2019

Gavin Jones, PE, AICP
Traffic Engineering
2300 Virginia Avenue
Fort Pierce, FL 34982

RE: *Misty Creek Preserve – Response to Comments*
St Lucie County, Florida
KH #140011001

Dear Mr. Jones:

Kimley-Horn and Associates, Inc. received your comments dated September 10, 2019 regarding our traffic study for the above-referenced project. The analysis has been revised to address these comments. Below are our responses to each of the comments issued.

- 1. Please provide existing condition and future background condition analyses of all road segments and intersections, and report all LOS, delay and queue length information for those scenarios in Tables 2, 3, and 4.**

Applicant Response: *The existing and future background condition analysis has been included in Table 2 for the road segments. The existing and future background condition analysis for the interesections have been included in revised report in Tables 4 through 9.*

- 2. This proposed residential development sits at the western edge of Fort Pierce. As such, the majority of its trip interactions will likely be to and from the northeast and east. Please either:**
 - a. Revise the expected project traffic distribution to:**
 - i. 40% to and from the east along Okeechobee Road;**
 - ii. 40% to and from the east along Virginia Avenue; and**
 - iii. 20% to and from the west on Okeechobee Road; or**
 - b. Alternately, in the Greater Treasure Coast Regional Planning Model (GTCRPM), connect a new Traffic Analysis Zone (TAZ) in a way that accurately reflects the project's access to the surrounding road network, populate the TAZ with the proposed development program and use the percentage distribution of that zone's traffic as the basis for the analysis. Provide confirmation of the correct socio-economic data model inputs, and a plot of the zonal traffic volumes that shows clearly the details of the connection of the TAZ to the network.**

Applicant Response: *The trip assignment has been revised and has been carried throughout the report.*

3. Please revise the distribution of entering and exiting project traffic among the entrances to be more consistent with the site plan, which shows less than 17% of the dwelling units (one building) north of the S 35th Street entrance, and 83% (the other 5 buildings) south of the S 35th Street entrance. Specifically:
- Of the entering project traffic approaching from the west on Okeechobee Road, 20% should make a right turn in from Okeechobee Rd. The remaining 80% should go east on Virginia Avenue, left onto S 35th Street, and left into the S 35th Street entrance.
 - Of the entering project traffic approaching from the east on Okeechobee Road, 20% should go through the S 35th Street intersection, make a U-turn at S 37th Street, and then make a right-in at the Okeechobee Rd. entrance. The remaining 80% should make a left turn onto S 35th Street and a right-in at the S 35th Street entrance.
 - Of the exiting project traffic headed west on Okeechobee Road, 20% should make a right out onto Okeechobee Rd. and a U-turn at the S 35th Street intersection. The remaining 80% should make a right-out onto S 35th Street, a right turn onto Virginia Avenue and a left turn onto Okeechobee Road.
 - Of the exiting project traffic headed east on Okeechobee Road, 20% should make a right out onto Okeechobee Road. The remaining 80% should make a left-out onto S 35th Street and a right turn onto Okeechobee Road.

Applicant Response: *The distribution and project traffic assignment has been revised. Figure 3 illustrates the revised project assignment at the project driveways.*

4. Please use separate growth rates for all road segments. For Okeechobee Road east of S 35th Street please use the observed annual growth rate between the 2016 count in the St. Lucie County database and the 2018 count at FDOT station 940007. Growth rates should be based on a five-year trend if the five-year trend is relatively stable, or an explanation provided why some other time interval is used (recent changes to the network, data unavailability, etc.). Please revise the table developing traffic growth rates to show for each location the data source (agency and count station number) and, because count years may vary, the first and last year of the historical counts at each location. Please provide some explanation of how the growth rates are derived (ex. FDOT Trend worksheet) and what type is used (linear, exponential, etc.). The minimum growth rate used to inflate to future conditions should be 0.5% if the historical growth trend is less than that. Growth rates in background traffic intersection turning movements should reflect the growth rates on the road segments connecting to the intersection, not a single rate for all intersections.

Applicant Response: *The growth rate for each roadway segment was calculated using FDOT Traffic Online data for year 2013 and year 2018. The growth rate was calculated exponentially to determine the 5-year growth rate for each segment. The roadway segment on Okeechobee Road from Virginia Avenue to Georgia Avenue did not have accurate data from either FDOT or St Lucie County; therefore, an area-wide growth rate was calculated and was applied to those roadway*

segments. The roadway segments on Virginia Avenue from Okeechobee Road to S 35th Street and Sunrise Boulevard to Oleander Avenue have growth rates less than 0.5%; therefore, a 0.5% nominal growth rate was applied instead. The roadway segment of S 35th Street from Virginia Avenue to Okeechobee Road did not have any data besides the 2016 volumes provided by St Lucie County; therefore, the area-wide growth rate was applied. For the intersection analyses, the growth rates for each approach was applied based on the segment growth rate.

5. To evaluate future conditions on S 35th Street between Virginia Avenue and Okeechobee Road please collect a 72 hour traffic volume count on S 35th Street between Virginia Avenue and Okeechobee Road, compare that 2019 count to the 2016 count reported in the St. Lucie County database (Station ID 613) and use the resulting historical exponential growth rate to estimate background traffic conditions on S 35th Street between Virginia Avenue and Okeechobee Road in 2024. Please use the directional volumes as a check on the approach volumes used in the analysis of the intersection of S 35th Street and Sarasota Avenue (see Comment #7).

Applicant Response: The area-wide growth rate was applied to the roadway segment (1.94%).

6. Please evaluate the intersection of Okeechobee Road at S 37th Street where project traffic will make a westbound U-turn to verify that those U-turns will not cause an operational issue, and add its information to Tables 3 and 4.

Applicant Response: The turning movements were collected at Okeechobee Road & S 37th Street on October 24, 2019 and are included in the intersection analyses.

7. Please count vehicle turning and pedestrian movements at the intersection of Sarasota Avenue and S 35th Street, evaluate this intersection’s operation in all three scenarios (existing, future background, and future with project condition), and add this information to Tables 3 and 4. Describe any interaction in the 2024 AM peak period between project traffic and traffic to and from the Fairlawn Elementary School to the east of the project. Please evaluate the need for turn lanes on S 35th Street at this intersection due to the addition of project traffic.

Applicant Response: Turning movement counts were conducted on October 24, 2019 and are included in the intersection analyses. From the analysis, the additional project traffic at the intersection still operates at an acceptable level of service with a 95th percentile queue length of less than one (1) vehicles. Therefore, a turn lane will not be required.

8. Please add the storage length and queue length information for the intersection of Okeechobee Road and S 35th Street to Table 4.

Applicant Response: The storage length and queue length information has been included in the revised report for the intersection of Okeechobee Road & S 35th Street.

9. Please use the latest available PSCF to inflate the turning movement counts to peak season conditions, and provide a copy of the report in the appendices.

Applicant Response: *The latest PSCF have been used and are included in Appendix D.*

10. On Figure 5, please:
 - a. Note that the project traffic segment volumes are two-way volumes;
 - b. Add the EBLT project traffic movement at the intersection of Virginia Avenue and S 35th Street;
 - c. On Okeechobee Road from Virginia Avenue to S 35th Street, either use the project traffic segment volume from the project entrance to S 35th Street, or show both project traffic segment volumes (east and west of the project entrance); and
 - d. Review the project traffic segment volume on S 35th Street, which is not consistent with Figure 4.

Applicant Response: *Figure 5 has been revised to address the above-mentioned comments.*

11. In Table 2, please:
 - a. Revise the title of one of the two columns that are both titled: “NB/EB In/Out;”
 - b. Change the titles of the peak period sections of the table to “AM Peak Period” and “PM Peak Period;”
 - c. Ensure the Peak Direction Project Trips for Okeechobee Road from the Project Driveway to S 35th Street are consistent with the revised project traffic distribution. The current value of 5 should be 16 to be consistent with the project traffic distribution as it was submitted;
 - d. Revise the growth rates consistent with Comment #s 4 and 5; and
 - e. Ensure that the correct LOS letter grades are reported from the St. Lucie County database for base year conditions. Some examples:
 - i. S. 35th Street (from Kirby Loop Rd to Cortez Blvd) AM PEAK: LOS = E (NOT C)
 - ii. S. 35th Street (from Cortez Blvd to Virginia Ave) AM PEAK: LOS = D (NOT C)
 - iii. S. 35th Street (from Kirby Loop Rd to Cortez Blvd) PM PEAK: LOS = D (NOT C)
 - iv. S. 35th Street (from Cortez Blvd to Virginia Ave) PM PEAK: LOS = D (NOT C).

Applicant Response: *Table 2 has been revised to address the above-mentioned comments.*

12. Please ensure all demand volumes input into Synchro and HCS reflect all comments above and revise the LOS results consistent with the revised demand volumes.

Applicant Response: *Comment has been acknowledged.*

13. Additional comments may be issued based on revisions to the traffic statement and site plan.

Applicant Response: *Comment has been acknowledged.*

We trust that these responses and the revisions to the analysis address the comments provided. If there are any additional comments or questions, please contact me via telephone at (561) 840-0874 or via e-mail at adam.kerr@kimley-horn.com.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Adam B. Kerr, P.E.
Transportation Engineer