

To: Diana Spriggs, P.E., Regulatory Division Director, City of Port St. Lucie
From: Myra E. Patino, P.E., PMP, Marlin Engineering, Inc.
Cc: Walter Keller, P.E., AICP, Marlin Engineering, Inc.
Ashok Sampath, M.S., Marlin Engineering, Inc.
Date: June 14, 2023
Subject: Response to Riverland/Kennedy Objection Letter to Wilson Groves DRI Applications

MARLIN Engineering, Inc. has conducted a review on the impacts of the current Wilson Groves DRI Amendment, specifically Figure 1-6 and Map H and referred to collectively as the “ACR applications” after the developer’s name ACR Acquisition, LLC, as documented by Riverland/Kennedy II, LLC (aka “GL”) in their letter to the City dated June 2, 2023, in which GL is requesting the City of Port St. Lucie deny the ACR applications submitted by the developer due to the following:

- 1) Failure to indicate the timeline of the construction of the 2-lane roadway network.
- 2) Failure to identify the roadway impacts outside the Wilson Grove DRI.
- 3) Detrimental impact to GL who will be obligated to expand the roadways in and around the Riverland development.

GL’s main concern is that the Council’s directive is not being followed as **“there are no substantive policy language or development conditions being added to the language of the ACR Applications to give surety that ACR will timely build or ever build its equivalent share of the 2-lane roadway network.”**

Overall, GL emphasizes that the City should not entirely rely **“upon the existing monitoring conditions set forth in the Wilson Groves DRI DO...to guarantee the 2-lane roadway network is completed”** since the monitoring condition requires the City to allow the developer 24 months for engineering, permitting and construction making it impossible to properly ascertain the level of service on roadway portions that are not built.

Finally, GL recommends that the City add the following language to the Comprehensive Plan under Policy 1.2.11.5 proposed as subsection “g”:

- g. Construct the initial 2-lane road improvements set forth in the development order which are adjacent to all proposed Master Planned Unit Development (MPUD) approvals within the Wilson Groves NCD District.**

By including this additional policy text in the City’s Comprehensive Plan and adding similar language in the Wilson Groves DRI DO to maintain each document’s necessary consistency with other, will enable the City to require ACR to timely build its initial 2-lane roadway obligations as stated by GL.

With regards to the letter from Simmons & White, Inc., dated May 19, 2023, which included an additional review of the ‘Wilson Groves Traffic Analysis – Map H Amendment’ prepared by O’Rourke Engineering & Planning dated April 18, 2023 and corresponding review comments issued by Marlin Engineering dated May 10, 2023, a review was conducted to address the technical issues summarized in that letter, specifically as noted in Exhibit A as follows:

- 1. The Phase 1 analysis cannot be relied upon to make a determination of roadway needs from the provided traffic study for several reasons including but not limited to:*
 - The Phase 1 roadway network and land uses do not match the existing (and under construction) roadways or actual development built and pending.*

Response: The Wilson Grove land uses have changed significantly with the relocation and intensification of uses into Traffic Zone 648 (Parcel D). While there have been discussions regarding developing a paseo on Paar Drive within the Wilson Grove DRI, a minimum 2 lanes should be provided for Paar Drive continuity. The Phase 1 development is limited to Parcels A, B C and D. The 2022 Marlin 3 DRI Study recommended full development of the 2 lane regional roadway network in areas where development is occurring regardless of the existing capacity of the roadway network. The full 2 lane network should be in place by 2031.

- *No analysis of numerous impacted roadway sections if E/W 3 were to be removed from the roadway network. The elimination of E/W 3 would put additional trips on Becker Road east of N/S B, Community Boulevard between Becker Road and E/W 3, and on Discovery Way. However, no analysis was provided for these roadway sections in the Phase 1 analysis.*

Response:

These are the segments that are included,

Segment	From	To
E/W 3 AKA Marshall Parkway	Range line Road	N/S A
	N/S A	N/S B
	N/S B	Community Blvd
Discovery Way (E/W 1)	Range line Road	N/S A
	N/S A	N/S B
	N/S B	Community Blvd

Community Boulevard between Becker Road and E/W 3 is not included.

- *A modeling analysis should have been completed if a roadway was removed from the network and not a manual adjustment of trips.*

Response: WATS was utilized to update the trip assignments of the proposed land uses. WATS was developed using modeling analysis.

- *The Phase 1 analysis did not use the same trip generation methodology as the rest of the traffic study. The analysis took a higher discount for the approved trips by not reducing for internal capture which it did for the new reallocation trips. This resulted in showing a significant reduction in impact.*

Response: Phase 1 was focused on 2,200 DU Residential and 210K GFA Retail and 272K Commercial part. This triggers a roadway improvement based on the newly updated Wilson Grove Resolution 11-R thresholds (2573 Trips/2200 Dwelling units).

Land Use	Phase 1						
	A	B	C	D	E	F	Totals
Residential	1,242	850	108				2,200
Retail	210,000						210,000
Office				136,125			136,125
Industrial				136,125			136,125
Institutional/Civic							0
School / Park				50			50

- *The Phase 1 analysis utilized the original WATS as a baseline comparison which relies on outdated assumptions for numerous factors including that each of the DRI’s would be built at a similar time frame and pace. Substantial changes have occurred since the completion of the original WATS and these changes would need to be considered in a comprehensive analysis including traffic modeling if the elimination of a roadway is being considered.*

Response: E/W 3 is not proposed to be built only during Phase 1 based on the traffic analysis. During Phase 2:

- Becker Road as a two-lane roadway from Range line to N/S A, and Four lanes from N/S A to the east; and
- E/W 3 and N/S A as two-lane roadways.

All the roadways will be built in Phase 3. Becker Road will be four lanes from N/S A to Community.

2. *The roadway link analysis for each of the phases including the full buildout scenario has a fundamental flaw in the methodology. The roadway link volumes were determined by taking the latest WATS 3 roadway volumes for the evaluated roadway sections, then subtracting out the previously approved Wilson Groves trips, and finally adding the new Wilson Groves trips as part of the land use reallocation. However, numerous roadway segments show the previously approved Wilson Groves trips on a given roadway segment were higher than the overall volumes on the roadway link shown in the WATS 3 that included trips from Riverland/Kennedy and Southern Grove developments. In other words, the link analysis assumes removing the approved Wilson Groves trips from the roadway network would result in the roadway segment to have negative trips. Below are a few*

examples of the buildout analysis in Table 4 where the roadway volumes were shown to be negative before adding back in the new Wilson Groves trips:

- *Becker Road from N/S A to N/S B: -5,643 daily trips*
- *Paar Drive from N/S A to N/S B: -8,557 daily trips*
- *NS B from E/W 3 to Paar Rd: -9,435 daily trips*
- *NS A from Paar Rd to Becker Rd: -6,628 daily trips*
- *Discovery Way from N/S B to Community Blvd: -5,002 daily trips*

In summary, the total traffic volumes in Table 4 were determined using the following methodology:

$$\text{Total Traffic Volumes} = A - B + C$$

A = Overall WATS 3 traffic volume projections

B = Approved Wilson Groves Trips

C = Proposed Wilson Groves Trips

In several circumstances, A-B resulted in negative trips which raises the question of the reliability of the results.

Response: The buildout analysis Table 4 shows two-way trips based on the applicant's response and the applicant confirmed that the table will be updated to avoid confusion.

Applicant's Response: The tables are set up in a manner that the AADT (two directions) is entered twice since the formulas are set up to apply the K and D factors to arrive at the peak hour directional values. This approach is consistent with other DRIs. So, the two AADTs do not get added together. The Total AADT is half of what the reviewer has indicated. So, the peak hour factor is 9%. We apologize if the formatting has led to confusion.

Update 6/13/2023: The recent supplemental shows that the applicant updates the table to match the trip distribution figures.

As for the Total Traffic Volume Methodology, the applicant looked into change of trips from Approved to Proposed and then added the new trips to WATS 3 traffic volume projections.

$$\begin{aligned} \text{Total Traffic Volumes} &= A + (C - B) \\ &= \text{WATS 3.0} + \text{New Trips} \end{aligned}$$

A = Overall WATS 3 traffic volume projections

B = Approved Wilson Groves Trips

C = Proposed Wilson Groves Trips

3. *There are several inaccuracies in the trip assignment that do not match the supporting documentation. Specifically, pdf page 135 which details the Wilson Groves WATS 3 trip assignment does not match "Table 4: Link Analysis – Phase 4 Buildout".*

Response: Yes, they used WATS 3.0 as a benchmark to develop the trip distribution and were directed to re-allocate partial trips within their DRI based on the review comments as provided in detail from page 136 to page 142.

4. *The traffic study relies on the WATS 3 traffic volumes as the baseline for projections for Phases 2, 3, and 4. However, no support documentation is provided so the WATS 3 traffic volumes can be verified. The WATS 3 traffic volumes shown in Table 4 do not match the Southern Grove DRI Traffic Analysis prepared by MacKenzie Engineering & Planning, Inc. dated July, 2021 which is referred to as the WATS 3.*

Response: The WATS 3 has been updated since 2021. Wilson Grove Resolution 11-R is based on both trips and dwelling units' thresholds.

5. *The proposed land use reallocation results in a substantial increase in traffic (additional 9,781 daily trips) on Becker Road between N/S A and N/S B. However, no traffic analysis was prepared for Becker Road east of N/S B or on numerous other roadway segments including Community Boulevard, N/S A between Discovery Way and E/W 3, and N/S B between Discovery Way and E/W 3. The proposed changes have a significant impact to the Riverland/Kennedy DRI roadway obligations and the impacts were not evaluated in the traffic study.*

Response: Marlin Engineering review of the Wilson Grove DRI 6th version addressed the increased traffic volumes for traffic zone 648 associated with the land use reallocation. Traffic zone 648 is proposed to have 1.58 million square feet (SF) of office use, 1.36 million

SF of industrial use, 360 thousand SF of commercial use and 81 thousand SF of civic use. Further revisions of land use raised the number of students to 2,420 students and 1,925 multifamily dwelling units. The Marlin review further suggested Becker Road would probably have to be widened to 6 lanes east of N/S “B”. The review also emphasized extension of N/S “A” beyond Discovery Way and connection to Marshall and a future interchange with I-95 as specific improvements which would redistribute traffic volumes off of Becker Road.