



**Marion County
Board of County Commissioners**

Office of the County Engineer
412 SE 25th Ave.
Ocala, FL 34471
Phone: 352-671-8686
Email: DevelopmentReview@marionfl.org

February 18, 2026

Kok Wan Mah
Kittelson & Associates

Subject: WEC Sports Complex
Plan Name:
Plan Number: 33437
Parcel Number: 21087-001-02
Additional Parcel Numbers:
Adjacent Street:
Intersecting Street From:
Intersecting Street To:

Dear Kok Wan,

The Traffic Study for the above referenced plan number was approved by the Office of the County Engineer on 2/4/26. The following comments, if any, are for your record.

A proportionate share agreement will be required for the identified improvements.

Feel free to contact us at (352) 671-8686 or DevelopmentReview@marionfl.org with questions.

Sincerely,

Your Development Review Team
Office of the County Engineer



WEC SPORTS COMPLEX TRAFFIC IMPACT ANALYSIS

MARION COUNTY, FLORIDA

October 2025, Updated January 2026



CONCLUSIONS

This traffic analysis was prepared to evaluate the traffic impacts associated with the proposed WEC Sports Complex development, located on the north side of SR 40 and west of NW 87 Court Road in Marion County, Florida, in support of obtaining concurrency approval through Marion County. The study analyzed future traffic conditions for year 2030 (which is the project build out year) following the approved TIA methodology. Supplemental analysis for year 2027 and 2045 was conducted on the request from the Marion County building upon the findings of the approved West Marion Transportation Planning Study completed by Kimley-Horn in September 2023.

Findings:

Trip Generation

- The proposed development is projected to generate a net total of 7,169 new weekday daily trips, including 864 new PM peak-hour trips on weekdays and 1,491 new midday peak-hour trips on weekends.

Proposed Access

- Access to the development will be provided at four (4) locations: a) Directional access (Left-In/Right-In/Right-Out) approximately 7,970 feet west of SR 40 and NW 110th Avenue.
b) Directional access (Left-In/Right-In/Right-Out) at the stop-controlled intersection of SR 40 and NW 92nd Avenue.
c) Full access at the intersection of SR 40 and NW 87th Court, which will be signalized in the buildout year.
d) Directional access (Left-In/Right-In/Right-Out) at the existing stop-controlled intersection of SR 40 and NW 1st Street/SW 85th Avenue.

Existing Conditions

- The study roadway segments generally operate acceptably and have sufficient capacity under existing conditions, except for the following SR 40 segments:
 - Urban Area Boundary to SW 140 Avenue
 - SW 140 Avenue to CR 328
 - CR 328 to SW 110 Avenue
- All study intersections operate at an overall Level of Service (LOS) D or better, and all movements have a v/c ratio below 1.00, except the westbound movement at SR 40 and SW 60th Avenue.

Background Conditions

- Roadway segments along CR 225A and NW 100th Avenue are projected to operate at acceptable LOS with v/c ratios below 1.00. Most SR 40 segments also perform adequately (LOS D or better, v/c < 1.00), except the SR 40 corridor between the Urban Area Boundary and SW 110th Avenue, which exceeds capacity (v/c > 1.00).
- All intersections are expected to operate at LOS E or better, except the following movements projected to have v/c > 1.00:
 - SR 40 and SW 80th Avenue
 - SR 40 and SW 60th Avenue

- US 27 and SW 60th Avenue
- To address these deficiencies, the following intersection modifications have been proposed and evaluated based on future no-build volumes:
 - Add a right-turn lane with permitted overlap signal phase at both northbound and southbound approaches of SR 40 and SW 80th Avenue; increase cycle length from 125 to 150 seconds.
 - Add a second northbound left-turn lane, convert the permitted phase to protected, add a permitted southbound right-turn lane, and change the shared thru/right-turn lane to thru-only at SR 40 and SW 60th Avenue; increase cycle length from 145 to 160 seconds.
 - Increase the split for the westbound left-turn phase at US 27 and SW 60th Avenue.
- With these improvements, previously overcapacity movements are expected to operate acceptably, with v/c ratios dropping below 1.00 (see Table 6, rows 7, 9, and 15).

Buildout Conditions (2030)

- In addition to the deficiencies identified under background conditions, the following SR 40 segments are projected to reach or exceed capacity under buildout conditions:
 - SW 60 Avenue to SW 52 Avenue
 - SW 52 Avenue to I-75 Ramp (West)
 - I-75 Ramp (East) to SW 33 Avenue
 - SW 33 Avenue to SW 27 Avenue
- The development will contribute a proportionate fair share, as estimated by Marion County, toward widening these segments.
- Under future buildout conditions, study intersections are expected to operate at LOS E or better, with v/c ratios below 1.00.

Turn Lane Analysis

- The background turn lane analysis identified many left-turn lanes where the queue length is deficient. These turn lanes should be considered candidates for dual left-turn lanes.
- Based on turn lane analysis, the eastbound left-turn movement at SR 40/SW 80th Avenue and the eastbound left-turn movement at SR 40/I-75 northbound ramp have deficiencies exceeding 100 feet caused by project trips. The southbound left turn at SR 40 at SW 60th Avenue has nearly 100 feet deficiency feet caused by project.
- Turn lanes with a deficiency of less than 50 feet (2 car lengths) may be excluded from consideration for improvements, and the cost improving these turn lanes can be reallocated toward improving turn lanes with deficiencies (rounded to a car length) for the following turn lanes:
 - SR 40 at SW 80th Avenue: Eastbound Left Turn (150 feet)
 - SR 40 at SW 60th Avenue: Southbound Left Turn (100 feet) and Eastbound Left Turn (50 feet)
- The extension of the eastbound left turn lane storage length (deficiency rounded to a car length: 125 feet) at SR 40 at I-75 NB ramp and the westbound left turn lane storage length (deficiency rounded to a car length: 75 feet) at SR 40 at I-75 SB Ramp cannot be considered feasible. Because these two lanes are located in such a way increasing the storage length for one turn lane would

reduce the available space for the other. As a result, any improvements must consider this physical constraint.

Note that, under the 2030 no-build condition, the eastbound left turn lane storage length has a deficiency of 290 feet at SR 40 at I-75 NB ramp and the westbound left turn lane storage length has a deficiency of 415 feet at SR 40 at I-75 SB. For these movements, dual left turn lanes should be considered as an alternative.

- The development will provide a proportionate fair share, as estimated by Marion County, to mitigate these movements.

Supplemental Analysis – Year 2027

- The four intersections proposed by the county were analyzed. Under no-build conditions, all intersections operate at LOS D or better with v/c ratios below 1.00.
- Under buildout conditions, all intersections operate at an LOS E or better, and the eastbound, westbound, and northbound movements at SR 40/SW 80th Avenue are projected to operate over capacity (v/c > 1.00).
- All other intersections are anticipated to operate within acceptable v/c ratios under both scenarios. No additional improvements are proposed for 2027, as improvements have already been recommended in the 2030 No-Build Intersection Capacity Analysis.

Supplemental Analysis – Year 2045

- Under no-build conditions, all study intersections are projected to operate at LOS E or better, with all movements below v/c = 1.00.
- Under buildout conditions, the following movements are projected to exceed capacity:
 - Eastbound and westbound movements at SR 40/SW 80th Avenue (v/c = 1.10 and 1.15).
 - Westbound and northbound movements at SR 40/I-75 Southbound Ramp (v/c = 1.06 and 1.05).
 - Westbound, Northbound and southbound at US 27/ CR 225A (v/c: 1.03, 1.01 and 1.00 respectively)
- To address these, the following improvements have been proposed and evaluated based on 2045 buildout conditions:
 - Add an additional eastbound thru lane and increase cycle length from 120 to 160 seconds at SR 40/SW 80th Avenue.
 - Add an additional northbound left-turn lane at SR 40/I-75 Northbound Ramp.
 - Increase cycle length from 130 to 155 seconds at US 27/CR 225A.