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TRANSPORTATION DEPARTMENT

MEMORANDUM

TO: Michael Belush, AICP, Planning and Zoning Manager

FROM: Jose R. Gonzalez, PE, Director

DATE: November 20, 2018

SUBJECT: 2340 Collins Avenue – Traffic Impact Study

The Transportation Department has reviewed the subject Traffic Impact Study (TIS) submitted by the applicant as part of the Planning Board application for the proposed mixed use development located at 2340 Collins Avenue (Project). Kimley-Horn and Associates Inc. prepared and submitted the TIS for this Project. Florida Transportation Engineering, Inc. (FTE) was retained by the City to perform a peer review of the TIS for the Project.

The proposed development will consist of a 132,600 square-feet office building and 11,146 square feet of retail space. The Project site is located between Liberty Avenue and Collins Avenue, north of 23rd Street. The Project will have approximately 190 feet of façade facing Collins Avenue providing for pedestrian access. Vehicular access to the property will be located on Liberty Avenue. All vehicles will be valeted with the exception of AVIS car rental trips.

Data Collection:

As requested by the City, turning movement counts (TMC) were collected at the following intersections:

1. Dade Boulevard and 23rd Street (Signalized)
2. Park Avenue and 23rd Street (Unsignalized - TWSC)
3. Liberty Avenue and 23rd Street (Unsignalized - TWSC)
4. Collins Avenue and 23rd Street (Signalized)
5. Collins Avenue and 22nd Street (Signalized)
6. Collins Avenue and 24th Street (Signalized)
7. Liberty Avenue and Project Driveway (Unsignalized)

The intersection turning movement counts performed by National Data and Surveying were collected on Thursday, August 16, 2018. Given that the planned land use for the development is Office Park, the data was collected during the typical weekday commuter peak-hours of 7AM to 9AM and 4PM to 6PM. It is worth noting that while these peak periods do not coincide with the peak-hours of the area (i.e, Friday nights from 10PM to 12AM), they represent the periods of highest vehicular volumes (i.e. greatest impact) resulting from an office building. As part of the analysis, the traffic counts were adjusted for peak seasonal variations by utilizing the Florida Department of Transportation Seasonal Factor.

Trip Generation and Trip Distribution

The trip generation for the Project was based on information obtained from the Institute of Transportation Engineers' (ITE) Trip Generation Manual (10th Edition). According to the ITE manual, the most appropriate "land use" categories for the proposed development are:

- Land Use Code 710 – General Office Building
- Land Use Code 820 – Shopping Center

Although there are café and restaurant uses depicted on the site plan, to ensure a conservative analysis, the applicant's traffic engineer was directed by Transportation Department staff to use the Shopping Center Land Use Code because the trip rates are higher than the combination of the proposed uses.

As agreed with the applicant's traffic engineer during the methodology meeting, the following trip reduction factors and percentages have been applied to the trip generation analysis:

- 20% multimodal reduction factor:
  - Collins Avenue has adequate sidewalks and pedestrian crosswalks at intersections. In addition, the neighborhood is served by several routes of the Miami Beach Trolley.
- Internal capture rates for proposed land uses:
  - 4.7% during AM peak hour and 3.9% during PM peak hour (ITE Internal Capture Factor for this mix of uses)
- Pass-by trip capture rate:
  - 34.0% during PM peak hour for shopping center

As indicated in Table 1 of the TIS report, the proposed 2340 Collins Avenue development is anticipated to generate approximately 123 net new AM peak hour trips and approximately 169 net new PM peak hour trips.

The trip distribution and traffic assignment for the Project were based on Miami-Dade County's Cardinal Distribution information for the study area. Table 2 of the TIS report summarizes the County's cardinal distribution data for Traffic Analysis Zone 635. Following discussions with Transportation Department staff and revisions by the applicant's traffic engineer, the following traffic assignment was approved based on the proposed retail and office development:

- 19% to/from the southwest via Dade Boulevard/Venetian Causeway
- 30% to/from the northwest via Alton Road
- 22% to/from the north via Collins Avenue
- 29% to/from the south via Collins Avenue

Level of Service Analysis

Intersections capacity/level of service (LOS) analyses were conducted for the six (6) study intersections and project driveway. The analyses were undertaken following the capacity/level of service procedures outlined in the 2010 Highway Capacity Manual (HCM) using the SYNCHRO

Volume 10 software. The intersection capacity analyses results for existing, future with background growth, and future with Project conditions are summarized in Table 3 and Table 4 of the TIS. The results of the analysis indicate that four (4) of the six (6) study intersections are currently operating adequately and will continue to do so in the future with Project conditions; however, the intersections of Dade Boulevard and 23rd Street during the AM and PM peak hours, and Collins Avenue and 23rd Street during the PM peak hour are failing with and without the Project in place in the year 2022. It is worth highlighting that the Collins Park Garage and other committed developments in the area were added to the *future with and without Project* analysis.

INTERSECTION MITIGATION

Based on the results of the Level of Service analysis, the intersections of 23rd Street at Collins Avenue and Dade Boulevard will fail during the future conditions regardless of the construction of the Project. The following mitigation measures have been identified by the Transportation Department for implementation. The Developer should partner with the City and County to implement the following measures:

23rd Street and Dade Boulevard

- Signal retiming consisting of increasing the cycle length to 140 seconds.
- Increase storage capacity of the southbound left turn lane to reduce impacts to the southbound through movement.
- In addition to these improvements, the City is working with a Traffic Engineering consultant to review traffic operations on Dade Boulevard during the morning and afternoon peak hours. The scope of his study includes a thorough review of this intersection, including impacts created by school traffic. The traffic study is anticipated to be completed in 2019 and the improvements recommended in the study will be coordinated between the City and the County. At this time, there is no funding identified for the design and construction of any improvements at this intersection given that the traffic study has not been completed and recommendations are forthcoming.

23rd Street and Collins Avenue

- Signal retiming consisting of increasing the cycle length to 140 seconds.

Other 23rd Street Corridor Improvements

In addition, the City has completed a feasibility study for a 23rd Street Complete Streets Project. The improvements recommended in the feasibility study are expected to receive City Commission endorsement at the November 12, 2018 City Commission meeting. The recommended improvements include a new typical section for 23rd Street and the addition of a new traffic signal at the intersection of 23rd Street/Park Avenue, which should help traffic flow in the westbound direction along 23rd Street. Other recommended improvements are focused on bicycle and pedestrian safety. Several of the recommended improvements are being coordinated to be constructed as part of the City's ongoing Collins Park Garage construction project.

It is anticipated that with the implementation of the above mitigating strategies, both failing intersections (23rd Street/Dade Boulevard and 23rd Street/Collins Avenue) should operate within

acceptable level of service thresholds.

SITE ACCESS, PARKING & VALET OPERATIONS, LOADING ZONES

All vehicular access to the Project will occur via Liberty Avenue. Parking for the development will be contained within an on-site parking garage. Valet drop-off and pick-up stations will be located on the second level of the parking garage. The valet drop-off station will consist of one (1) storage lane with capacity for 13 vehicles. The valet pick-up station also consists of one (1) lane that will allow for sufficient vehicle stacking. It is important to note that the TIS does not clearly specify or designate an area for ride share pick-up and drop-off operations. The lack of a designated area for ride share operations is an issue of concern for the City given the traffic and safety impacts caused by ride share vehicles blocking travel lanes and picking-up/dropping-off passengers from a travel lane.

The valet queueing operations analysis was based on the methodology outlined in ITE's Transportation and Land Development publication. The maximum length of queues anticipated at the valet drop-off area, at the required 95% confidence level, are as follows:

- Four (4) vehicles during the AM peak hour of a weekday at the drop-off station with nine (9) valet attendants
- One (1) vehicle during the AM peak hour of a weekday at the pick-up station with three (3) valet attendants

The maximum length of queues anticipated at the valet pick-up area, at the required 95% confidence level, are as follows:

- Four (4) vehicles during the PM peak hour of a weekday at the drop-off station with five (5) valet attendants
- Nine (9) vehicles during the PM peak hour of a weekday at the pick-up station with thirteen (13) valet attendants

Loading operations and trash pick-up will take place on Liberty Avenue. The applicant's traffic engineer has performed a maneuverability analysis, demonstrating that the loading vehicles will be able to effectively make entry and exit to the Project without adversely affecting the public right-of-way.

CONDITION

The Applicant shall provide the Transportation Department with a plan for ride-share pick-up and drop-off operations, including the number of spaces required during peak periods and the location where the ride share operations will be performed, either within the Project site or parking lane. Further, the Applicant shall work with the Transportation Department to submit a comprehensive Transportation Demand Management (TDM) Plan to the Transportation Department for review and approval prior to receiving a Temporary Certificate of Occupancy for the development

CONCLUSION

Please feel free to contact me if you have any questions on the above.

cc: Josiel Ferrer-Diaz, E.I., Assistant Director
Firat Akcay, Transportation Analyst