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MEMORANDUM

Date:	September 26, 2016	Project #: 19678.2
To:	Christy Dominguez Planning and Zoning Division City of Hallandale Beach 400 South Federal Highway Hallandale Beach, FL 33009	
From:	Zachary Clark, PE	
Project:	MG 100 Tower Development	
Subject:	Technical Review of Parking Requirement Variance and Traffic Impact Analysis (TIA) Reports	

The MG 100 Tower is planned for development on a 1.51 acre site located west of US 1 (Federal Highway) and approximately 250 feet south of SR 858 (Hallandale Beach Boulevard). The proposed development consists of 294 residential condominium units, 5,487 square feet of restaurant, and 4,116 square feet of retail. The project is planned to be completed by year 2018.

The latest proposed development intensity is a reduction of 56 residential condominium units from the Traffic Study submission dated May 24, 2016, that was presented at the City Planning & Zoning Board Meeting on June 8, 2016. This development intensity reduction results in a trip generation reduction of approximately 225 daily trips.

Kittelison & Associates, Inc. (KAI) has reviewed the updated Traffic Impact Analysis (TIA) (revised August 8, 2016) and the Site Plans (dated August 10, 2016). The TIA and Site Plans were discussed at the Development Review Committee (DRC) meeting held August 30, 2016. KAI has no objections to the proposed development and the transportation-related improvements that have been agreed to in-principle, pending a formal revised or supplemental submission.

SITE ACCESS

The proposed project will be accessed through SE 5th Avenue. Three access points are planned: one full access driveway on the southwest corner of the development (primarily for residents); one full access driveway on the northwest corner of the development (primarily for visitors to the retail and restaurant uses); and one mid-block one-way exit only driveway (for service vehicles, trash trucks, and visitors).

Based on the site plan (Sheet AS1.00, dated August 10, 2016) there is pedestrian connectivity along the south side of the building from SE 5th Avenue to storefronts.

TRIP GENERATION

Trip generation for the proposed development was estimated based on the Institute of Transportation Engineers' Trip Generation, 9th Edition. The trip generation accounted for internal trip capture, while no pass-by trip reduction was applied. Additionally, no credit was applied for the existing land use. The net new trip generation for the proposed development is summarized in **Table 1**.

Table 1: Trip Generation

Time Period	Trip Generation		
	Enter	Exit	Total
A.M. Peak Hour	58	127	185
P.M. Peak Hour	119	62	181
Daily	1,059	1,059	2,118

With no proposed access on US 1 (Federal Highway), all of the new vehicle trips will travel on and access the site via SE 5th Avenue. These new trips are expected to be distributed to the north and south of the development on SE 5th Avenue. This results in 2018 total traffic conditions of 3-4 trips per minute during the peak hour on SE 5th Avenue.

In the 2018 total traffic conditions, approximately 32 vehicles are shown to turn right from SE 5th Avenue onto SR 858 (Hallandale Beach Boulevard) during the peak hour. This translates to 1 vehicle every 2 minutes or 1-2 vehicles per traffic signal cycle.

PARKING

The proposed development will provide a total of 645 parking spaces – 576 parking spaces for residential use and 69 parking spaces for other uses (e.g. Retail and Restaurant). The proposed total parking is approximately 15% (112 parking spaces) below the required 757 parking spaces per the City's standard General Business zoning parking requirements and administrative parking standards document, and approximately 14% (81 parking spaces) above the required 564 parking spaces per the Central Regional Activity Center (RAC) parking standards.

Table 2 summarizes the parking spaces per the alternative requirements as well as the proposed parking spaces.

While the development is located within the City's adopted Central RAC, the Hallandale Beach City Commission granted the developer a vested right to develop under the prior zoning designation and regulations. Therefore, the applicant previously requested a variance of 112 spaces (or 15%) less than that required by the standard Code.

Table 2: Required and Proposed Parking

Use	General Business and Administrative Parking Standards	Central RAC Parking Standards	Proposed Parking
Residential	688	531	576
Restaurant	55	19	69
Retail	14	14	
Total	757	564	645

The overall residential parking ratio based on 294 residential units is 2.3 parking spaces per dwelling unit under the standard Code and 1.8 parking spaces per dwelling unit under the RAC Code. The parking ratio for the proposed development is 2.0 parking spaces per dwelling unit, which falls between the two alternative requirements.

The developer plans to sell one parking space per dwelling unit as a measure to reduce parking demand and help promote non-vehicular trips.

The proposed development will also provide a total of 58 bicycle parking spaces, which is approximately 71% (24 parking spaces) above the required 34 parking spaces per Central RAC standard. The 58 bicycle spaces are proposed to be distributed among the parking levels.

TRAFFIC IMPACT

City's Traffic Requirements

The City participated in the Broward County Transit Concurrency Management Area (TCMA) system for arterial roadways and county collectors within the City limit. In addition, the City adopted an "Urban Infill" designation for the entire City. New development is exempted from roadway concurrency review in order to encourage urban infill and redevelopment. The City is free to approve development regardless of traffic congestion, but requires some form of mitigation deemed acceptable to the City. As stated in the City's Comprehensive plan, this will not preclude the City from requiring mitigation for county/state roads, if deemed appropriate, including improvements necessary for safe and adequate access to a site(s) or to improve general transportation operations that will serve a development. The City will continue to monitor traffic volumes and development impacts.

The City's Comprehensive Plan Policy 1.3.7 says:

"Development applications located within the boundaries of the City's urban infill or redevelopment area shall indicate traffic impacts to the local, state and Intrastate Highway system. The study will address over capacity roadway links and intersections within the City within one (1) mile of the subject site where impact exceeds de minimis levels. Although the study will be required to address improvements to overcapacity links and/or intersections, the study shall not be limited by this approach. The study shall analyze alternatives or techniques to minimize traffic impacts on the Hallandale Beach roadway network. These techniques shall include but not be limited to Transportation Demand Management applications, Transportation Systems Management approaches and improving multi-modal access."

The City's Ordinance Section 32-794 says:

"Every proposed major development within the city shall mitigate for the traffic and transportation impacts generated by such development within the city through the contribution of an exaction(s) to the city. Such exactions may be in the form of donations of land, cash payment or any other appropriate form and shall be commensurate with the extent of the development impacts as determined by the criteria set forth in this article and the city's capacity cost model"

Study Area

The traffic study covers a one mile study area, which includes SR 858 (Hallandale Beach Boulevard) from NW/SW 8th Avenue to Three Islands Boulevard, US 1 (Federal Highway) from SE 9th Street to Atlantic Shores Boulevard, and SW/SE 3rd Street west of Dixie Highway to US 1 (Federal Highway).

The following intersections were analyzed:

- SR 858 (Hallandale Beach Boulevard) and NW/SW 8th Avenue
- SR 858 (Hallandale Beach Boulevard) and South Dixie Highway
- SR 858 (Hallandale Beach Boulevard) and NE/SE 1st Avenue
- SR 858 (Hallandale Beach Boulevard) and SE 5th Avenue
- SR 858 (Hallandale Beach Boulevard) and US 1 (Federal Highway)
- SR 858 (Hallandale Beach Boulevard) and NE/SE 8th Avenue
- SR 858 (Hallandale Beach Boulevard) and NE/SE 10th Avenue
- SR 858 (Hallandale Beach Boulevard) and NE 14th Avenue
- SR 858 (Hallandale Beach Boulevard) and Three Island Boulevard
- US 1 (Federal Highway) and Atlantic Shores Boulevard

- US 1 (Federal Highway) and NE 3rd Street
- US 1 (Federal Highway) and SE 3rd Street
- US 1 (Federal Highway) and SE 9th Street
- SE 5th Avenue and SE 2nd Street
- US 1 (Federal Highway), SE 2nd Street and Old Federal Highway
- SE 3rd Street and Old Federal Highway
- SE 3rd Street and SE 1st Avenue
- SE 3rd Street and S. Dixie Highway
- SE 1st Avenue and SE 2nd Street

Traffic Data

Traffic data was collected by the developer on December 2015 and February 2016; Peak Season Conversion Factors were applied as per the agreed methodology between the City and the applicant. As per the agreed methodology, an annual growth rate of 0.9% was applied to project future traffic conditions, and the committed projects listed below were included.

- 2000 S Ocean Drive;
- Hallandale Oasis Phase 1, 1100 East Hallandale Beach Boulevard;
- Domus Office, 800 South Federal Highway;
- MD Medical Office, 633 West Hallandale Beach Boulevard;
- Hallandale Art Square, 301-409 North Federal Highway;
- Hallandale Fire Station No. 7, 111 Foster Road;
- Gulfstream Point, 918 S. Federal Highway;
- Village at Gulfstream/Gulfstream Park; 901 S. Federal Highway;
- Accesso Office Building, 100 N. Federal Highway; and
- Dream Team Retail, 11 NE 1st Avenue.

Roadway Segment Impact

According to the traffic study, all roadway segments are expected to operate at level-of-service (LOS) D or better during AM and PM peak hours, except for US 1 (Federal Highway). The analysis results indicate US 1 (Federal Highway) currently operates at LOS F between SR 858 (Hallandale Beach Boulevard) and NE 3rd Street and LOS E between NE 3rd Street and Atlantic Shores Boulevard during the PM peak hour. The entire US 1 (Federal Highway) within the study limits is anticipated to operate at LOS F by 2018 background PM peak conditions.

Intersection Impact

The intersection impacts were not summarized as a number of revisions were requested on the TIA study, per the KAI Review Comments dated August 30, 2016, yet a complete revised TIA report was not submitted in time for review. It is anticipated that signal retiming be required at a number of intersections. The applicant has agreed in-principle to provide a list of intersections recommended for signal retiming.

Queuing Impact

Queuing analysis was conducted for the following intersections:

- SR 858 (Hallandale Beach Boulevard) and US 1 (Federal Highway)
- US 1 (Federal Highway) and SE 3rd Street
- SR 858 (Hallandale Beach Boulevard) and SE 5th Avenue
- SE 2nd Street and Old Federal Highway
- SE 3rd Street and Old Federal Highway
- SE 2nd Street and SE 5th Avenue

The queuing impacts were not summarized as additional information requested to supplement the TIA study, per the KAI Memorandum dated August 30, 2016, was not submitted in time for review. However, it can be noted that long queues are anticipated at the following intersections based on previous submissions:

- SR 858 (Hallandale Beach Boulevard) and US 1 (Federal Highway)
- US 1 (Federal Highway) and SE 3rd Street
- SE 3rd Street and Old Federal Highway

While the long queues at these locations are anticipated to occur by 2018 background conditions, and the project traffic is anticipated to only add a few vehicles to the queues, it is important to recognize potential impacts beyond the problem intersections. For example the eastbound queue at US 1 (Federal Highway) and SR 858 (Hallandale Beach Boulevard) is expected to spill back beyond SE 5th Avenue, which may cause actual delay and queue for the northbound approach at SR 858 (Hallandale Beach Boulevard) and SE 5th Avenue to be higher. The same applies to the southbound and northbound queues at SE 3rd Street and Old Federal Highway with the eastbound queue spillback from US 1 (Federal Highway) and SE 3rd Street, which is expected to extend near SE 3rd Avenue.

Previous submissions, with a higher development intensity, have shown that the traffic impacts can be lessened through signal retiming; signal and lane configuration modifications at the intersection of US 1 (Federal Highway) and SE 3rd Street; and additional signage and supplemental pavement marking at the intersection of SE 3rd Street and Old Federal Highway.

CONCLUSIONS

The proposed development intensity, and therefore trip generation, is lower than the previous submission presented at the Planning and Zoning Board Meeting held June 8, 2016. The conditions listed below are consistent with those requested by the City in response to the previous higher intensity development proposal.

The proposed number of vehicle and bicycle parking spaces meets the Central RAC parking standards. KAI has no objections to the acceptance of the parking study with the following conditions of approval:

- Inclusion of the TDM mitigation measures, as identified by the traffic and parking studies, in the development agreement. These measures include:
 - Install a bus passenger shelter, at developer's expense, at a location to be agreed to with Broward County Transit on the east side of the project site on Federal Highway.
 - Applicant will include a transportation insert for the move-in packet for all new residence. The insert will include information on transit service, schedule and fares, including the local Hallandale Beach community bus service.
 - Applicant will offer a 50% subsidy to purchase Miami-Dade Transit or Broward County Transit monthly bus passes for new residents (one per household) for one year at the developer's expense.
 - Developer will provide secured bicycle parking in the garage for residents above the code minimum.
 - The applicant will maintain an available supply of local maps and transit schedule for residents at the developer's expense.
- Inclusion of the required and proposed bicycle parking in the parking study, and provision of plans demonstrating the proposed location of bicycle parking at each level.

KAI has no objections to the acceptance of the TIA with the following conditions of approval:

The following items should be demonstrated through a revised submission or supplemental materials, signed and sealed by a Florida PE. The City should reserve the right to submit further comments on new or revised submission material.

- The applicant will submit a revised TIA and full appendices, signed and sealed by a Florida PE, incorporating the responses to the Review Comments from KAI dated August 30, 2016 as well as the appropriate items listed below.
- The developer commit and contribute payment for the following improvements at the intersection of US 1 (Federal Highway) and SE 3rd Street:
 - Pending in-principle agreement by Broward County Traffic Engineering Division, reconfigure the eastbound SE 3rd Street approach, signal heads, and controller to

provide one shared left through lane and one exclusive right-turn lane, with right-turn signal overlap.

- The applicant will provide a list of signalized intersections that will require re-timing. The developer will coordinate and request traffic signal timing modifications (based on TIA analysis results) prior to obtaining a Temporary Certificate of Occupancy (TCO) or Certificate of Occupancy (CO) for the development, provide the City with a copy of such request and responses from the county and FDOT on the request, and pay for all cost associated with the signal timing optimization when required by FDOT or Broward County Traffic Engineering Division, at the intersections with signal timing optimized.
- The applicant has recommended installing “Do Not Block Intersection” signs and supplemental pavement marking at the intersection of SE 3rd Street and Old Federal Highway. The applicant will provide a Manual on Uniform Traffic Control Devices (MUTCD) compliant signing and pavement marking plan for this treatment as part of the signed and sealed submission. The developer should commit and contribute payment for the improvement.
- The requested real-time transit information digital screen for the building lobby is intended to encourage residents and visitors to utilize transit options by having the information readily available. The applicant suggests the need for a digital display will be investigated. It is recommended the applicant further commit to the digital screen implementation or propose other measures capable of providing real-time and/or interactive transit information to encourage non-vehicular travel.
- The applicant will demonstrate that the required sight distance triangles in accordance with the *AASHTO Green Book* at all stop-controlled egress points and the neighboring Peninsula Tower proposed access are not obstructed by proposed landscaping.