DC Engineers, Inc.

# Executive Summary

## Ocean Park Hotel and Residences

*Fort Lauderdale, Florida*

*May 18, 2022*

Prepared for:

**Sunrise FTL Ventures LLLP**

## EXECUTIVE SUMMARY

Sunrise FTL Ventures LLLP proposes to construct 54 multifamily dwelling units, a 100-room all-suites hotel, and ancillary uses including a 3,210 square foot restaurant, a 663 square foot pool bar and 825 square feet of retail space at 2851 and 2901 NE 9 Court (along the west side of Birch Road between NE 9 Court and Sunrise Boulevard (SR 838)) within municipal limits of the City of Fort Lauderdale. Figure 1, attached, shows the location of the project site and the transportation network in the immediate vicinity.

Danielsen Consulting Engineers, Inc. has been retained by Sunrise FTL Ventures LLLP to conduct a traffic study in connection with the proposed development. The traffic study addresses trip generation, site access, expected impacts to the adjacent roadway network, and potential improvements intended to mitigate new trips generated by the project if appropriate.

### Existing Land Use and Access

The subject 1.26-acre site is currently occupied by surface parking spaces and a variety of businesses including: two (2) restaurants, a massage center, a car rental agency, a palm reader, and a scooter rental center. Vehicular access to the site is provided at two (2) locations along Sunrise Boulevard (SR 838) and along the NE 9 Court frontage.

### Proposed Land Uses and Access

The project site is proposed to be redeveloped with the following:

- 54 multifamily dwelling units, and
- a 100-room all-suites hotel.

Proposed ancillary uses include:

- a 3,210 square foot restaurant,
- a 663 square foot pool bar, and
- 825 square feet of retail space.

Access to the mixed-use development is proposed as follows:

- **Driveway A** - A one-lane service driveway on NE 9 Court adjacent to the west property line,
- **Driveway B** - A two-way, two-lane driveway on NE 9 Court accessing the resident and hotel valet service area, and
- **Driveway C** - A two-way, two-lane service driveway along the east property line.

The project is anticipated to be built and occupied by the year 2024.

**Roadway System**

The transportation network within the study area includes two (2) state minor arterials (Sunrise Boulevard (SR 838) and North Fort Lauderdale Beach Boulevard (SR A1A)) and local roadways including Birch Road and NE 9 Court.

Sunrise Boulevard (SR 838) is a six (6) lane state maintained facility adjacent to the project site. This arterial has a posted speed limit of 35 miles per hour (mph) and a current (2019) AADT of 25,000 vehicles per day (vpd).

North Fort Lauderdale Beach Boulevard (SR A1A) is a four (4) lane state maintained facility south of Sunrise Boulevard (SR 838) transitioning to two (2) lanes with on-street parking north of Sunrise Boulevard (SR 838). This arterial has a posted speed limit of 30 mph and a current (2019) AADT of 27,500 vpd south of Sunrise Boulevard (SR 838) and 18,800 vpd north of Sunrise Boulevard (SR A1A).

Due to abnormal conditions 2019 (rather than 2020) volumes are referenced. The Florida Department of Transportation (FDOT) is the source of all AADT volumes.

**Study Intersections**

For purposes of this study, the following two (2) intersections were selected for detailed analysis.

- Sunrise Boulevard (SR 838) at Birch Road, and
- NE 9 Court at Birch Road.

**Transit Service and Facilities**

Three (3) traditional Broward County Transit routes serve the project site as follows:

- **Route 36** traverses central Broward County primarily along Sunrise Boulevard (SR 838) between NW 136 Avenue (Panther Parkway) and North Fort Lauderdale Beach Boulevard (SR A1A).
- **Route 40** traverses central Broward County from the Lauderhill Mall on SR 441 to Galleria Fort Lauderdale via NW 19 Street, Sistrunk Boulevard, the 17th Street Causeway, SR A1A and Sunrise Boulevard (SR 838) adjacent to the project site.
- **Route 11** covers Broward County from US 441 (SR 7) to the Pompano Citi Centre along Prospect Road, NW 21 Avenue, Sistrunk Boulevard, Las Olas Boulevard and SR A1A near the project site.

**Trip Generation**

Trip generation for the proposed development is based upon rates and formulae published in the Institute of Transportation Engineer's (ITE) report *Trip Generation* (11th Edition). According to ITE, the most appropriate land use categories for the proposed development are Land Use Code (LUC) 222 'Multifamily Housing (High-Rise)' and LUC 311 'All Suites Hotel'.

**Net New Project Trips**

As shown in Table 1, the proposed development is expected to produce 649 gross vehicle trips per day, approximately 41 gross AM peak hour trips (19 inbound and 22 outbound), and approximately 50 gross PM peak hour trips (26 inbound and 24 outbound). Vehicle trips produced by existing uses to be removed are also shown in Table 1. Incorporating these existing trips and acknowledging internal capture (applicable only to the existing analysis) yields a decrease in vehicle trips across all three study scenarios when compared to vehicle trips expected to be produced by the proposed development (approximately 408 less vehicle trips per day, 50 less AM peak hour trips, and 36 less PM peak hour trips). ***Although several existing establishments are still open for business including 'Hot Scooter Rental' and 'Car Rental', vehicle trips from existing uses are provided for informational purposes only.***

**Trip Distribution and Traffic Assignment**

For purposes of this study, the distribution and assignment of project-related vehicle trips are based on current travel patterns documented at the intersection of Sunrise Boulevard (SR 838) and Birch Road. A distribution of 68 percent to and from the west and 32 percent to and from the east was utilized.

**Detailed Intersection and Driveway Level of Service Analyses**

Intersection capacity analyses were performed for both study intersections and the primary project driveway (Driveway B). The analyses were undertaken following the capacity/level of service procedures outlined in the current (6th) edition of the Highway Capacity Manual using the SYNCHRO 11 software. The results of the intersection analyses are summarized in report Table 2.

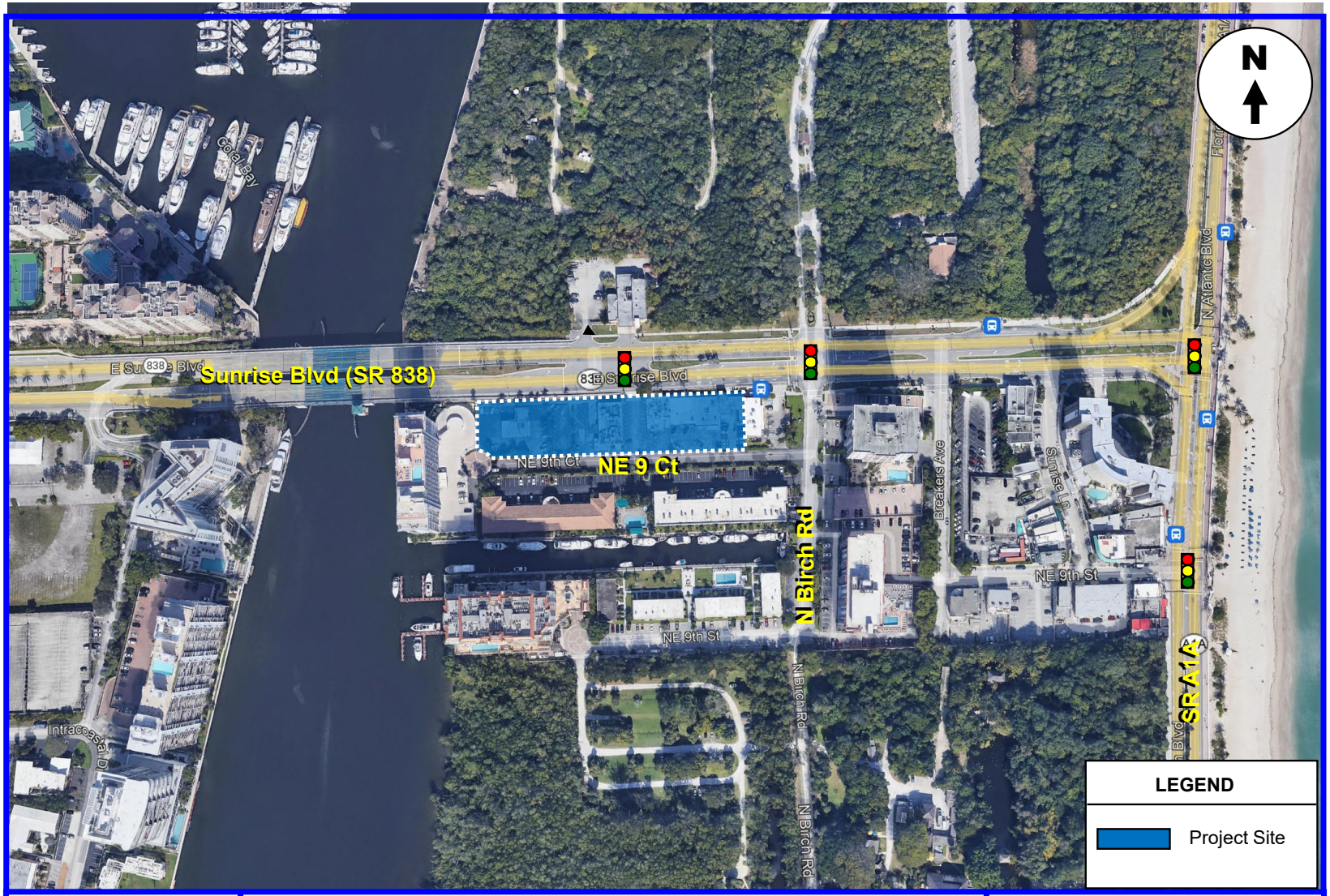
**Valet Analysis**

As all vehicles will be processed through the valet service and will enter and exit the project site through the central porte-cochere area (using Driveway B), the ability of the access driveway to accommodate the resulting vehicle queue has been examined. According to Section 47-20.17 of Unified Land Development Regulations (ULDR's) specific to the City of Fort Lauderdale, a minimum vehicle storage of six (6) vehicles is required for the proposed development. With a 99% confidence level, it is projected that three (3) parking attendants are required to limit the maximum queue to two (2) vehicles during a typical PM peak hour. Similarly, two (2) parking attendants are required to limit the maximum queue to six (6) vehicles.

**Conclusions and Recommendations**

Conclusions and recommendations of the traffic study are as follows:

- As shown in Table 1, the proposed Ocean Park Hotel and Residences is expected to produce 649 vehicle trips per day, approximately 41 AM peak hour trips (19 inbound and 22 outbound), and approximately 50 PM peak hour trips (26 inbound and 24 outbound).
- Provided for comparison purposes only are vehicle trips produced by existing uses to be removed. Incorporating these existing trips and acknowledging internal capture (applicable only to the existing analysis) yields a decrease in vehicle trips across all three study scenarios (approximately 408 less vehicle trips per day, 50 less AM peak hour trips, and 36 less PM peak hour trips).
- Signalized and unsignalized intersections within the study area currently operate within acceptable levels overall and are expected to continue operating within acceptable levels upon buildout of the project as proposed.
- The unsignalized primary project driveway (Driveway B) is expected to operate within acceptable levels of service upon buildout of the project as proposed.
- According to Section 47-20.17 of the ULDR's specific to the City of Fort Lauderdale, a minimum vehicle storage of six (6) vehicles is required for the proposed development. With a 99% confidence level, it is projected that provision of three (3) parking attendants will limit the maximum queue to two (2) vehicles during a typical PM peak hour. Similarly, two (2) parking attendants are required to limit the maximum queue to six (6) vehicles.
- It is recommended that after the project is built and occupied, the development team contact BCTED to request the signal timing of area wide traffic signals be reviewed and optimized.




| | | |
|---|---|---|
| DC Engineers, Inc. | **Project Location Map** | **FIGURE 1**<br>**Ocean Park**<br>Fort Lauderdale, Florida |

## Table 1: Trip Generation Summary Existing and Proposed Uses

| Land Use - Existing | Scale | Units | AM Peak Hour | | | PM Peak Hour | | | Daily |
|---|---|---|---|---|---|---|---|---|---|
| | | | Total Trips | Inbound | Outbound | Total Trips | Inbound | Outbound | |
| High-Turnover (Sit-Down) Restaurant (LUC 932) | 7.927 | ksf | 76 | 42 | 34 | 72 | 44 | 28 | 850 |
| Retail (<40k) (LUC 822) | 7.909 | ksf | 19 | 11 | 8 | 52 | 26 | 26 | 431 |
| **Subtotal** | | | **95** | **53** | **42** | **124** | **70** | **54** | **1,281** |
| Internalization (4%, 31%) | | | -4 | -2 | -2 | -38 | -19 | -19 | -224 |
| **Total** | | | **91** | **51** | **40** | **86** | **51** | **35** | **1,057** |

| Land Use - Proposed | Scale | Units | AM Peak Hour | | | PM Peak Hour | | | Daily |
|---|---|---|---|---|---|---|---|---|---|
| | | | Total Trips | Inbound | Outbound | Total Trips | Inbound | Outbound | |
| Multifamily Housing (High-Rise) (LUC 222) | 54 | du | 15 | 5 | 10 | 17 | 10 | 7 | 245 |
| All Suites Hotel (LUC 311) | 100 | rooms | 26 | 14 | 12 | 33 | 16 | 17 | 404 |
| **Total** | | | **41** | **19** | **22** | **50** | **26** | **24** | **649** |

*Source: ITE Trip Generation Manual (11th Edition)*

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Net New Vehicle Trips** | | | **-50** | **-32** | **-18** | **-36** | **-25** | **-11** | **-408** |

**Table 2: Intersection Levels of Service**

| Intersection/Approaches | Existing (2021) | Future Traffic Conditions | | |
|---|---|---|---|---|
| | | Year 2024 Without Project | Year 2024 With Project | Year 2024 With Imp. |
| *Sunrise Blvd at Birch Rd* | A\6.5 (B\11.1) | A\6.5 (B\11.1) | A\7.0 (B\11.5) | |
| - *NB Approach* | C\33.2 (C\33.0) | C\33.3 (C\33.0) | C\33.4 (C\33.3) | |
| - *SB Approach* | C\32.2 (C\33.1) | C\32.2 (C\33.1) | C\32.0 (C\32.9) | |
| - *EB Approach* | A\6.5 (B\16.2) | A\6.6 (B\16.2) | A\6.9 (B\16.4) | |
| - *WB Approach* | A\3.2 (A\3.6) | A\3.3 (A\3.6) | A\3.3 (A\3.7) | |
| *NE 9 Ct at Birch Rd* | | | | |
| - *EB Approach* | A\8.7 (A\8.8) | A\8.7 (A\8.9) | A\8.9 (A\9.1) | |
| *NE 9 Ct at Project Driveway B* | | | | |
| - *SB Approach* | NA | NA | A\8.3 (A\8.4) | |

*Source: HCM 6. LEGEND: AM Peak Hour (PM Peak Hour);vehicular delay (sec\veh)*