

Executive Summary

Ombelle

Fort Lauderdale, Florida

December 16, 2022

Prepared for:

Dependable Equities, LLC

EXECUTIVE SUMMARY

Dependable Equities, LLC proposes to construct 959 multifamily dwelling units and 11,405 square feet of retail space at 300 NE 3 Avenue (along the east side of NE 3 Avenue between NE 3 Street and NE 4 Street) within municipal limits of the City of Fort Lauderdale. Figure 1, attached, shows the location of the project site as well as the transportation network in the immediate vicinity.

Danielsen Consulting Engineers, Inc. has been retained by Dependable Equities, LLC to conduct a traffic study in connection with the proposed development. This 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 as appropriate.

Existing Land Use and Access

The subject 1.89-acre site is currently occupied by a 7,784 square foot light industrial building and ancillary surface parking spaces. The site is accessed at two (2) locations along NE 4 Street and through three (3) curb cuts along NE 3 Street (several are gated).

Proposed Land Uses and Access

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

- 959 multifamily dwelling units, and
- 11,405 square feet of retail space.

Access to the multifamily units and retail space is proposed as follows:

- One (1) two-way, two-lane driveway on NE 3 Street (right in/right out), and
- One (1) two-way, two-lane driveway on NE 4 Street (full access).

Both driveways are proposed to be stop-controlled. There will be no valet service and a security gate is not proposed at this time.

The project is expected to be built and occupied within year 2026.

On-Street Parking

Six (6) on-street parking spaces are proposed along NE 3 Street and three (3) are proposed along NE 4 Street. It is understood these spaces may be used by any member of the public and do not count toward the project's parking requirement.

Roadway System

The transportation network within the study area includes two (2) state principal arterials (N. Federal Highway (US 1/SR 5) and Broward Boulevard (SR 842)), two (2) county minor arterials (N. Andrews Avenue and NE 3 Avenue), two (2) city minor collectors (NE 4 Street and NE 6 Street) and NE 3 Street, a local roadway.

N. Federal Highway (US 1/SR 5) is a state maintained six (6)-lane facility north of the Henry E. Kinney tunnel. This arterial has a posted speed limit of 35 miles per hour (mph) and a current (2021) Average Annual Daily Traffic (AADT) volume of 42,000 vehicles per day (vpd) near the project site.

Broward Boulevard (SR 842) is a six (6)-lane state maintained facility south of the project site. This arterial has a posted speed limit of 35 miles per hour (mph) and a current (2021) AADT of 33,000 vpd.

Andrews Avenue is a four (4)-lane county maintained facility with a two (2)-way center left turn lane west of the project site. This arterial has a posted speed limit of 35 miles per hour (mph) and a current (2021) AADT volume of 11,400 vpd.

NE 3 Avenue is a four (4)-lane county maintained facility with a two (2)-way center left turn lane south of NE 4 Street. This arterial has a posted speed limit of 30 miles per hour (mph) and a current (2021) AADT volume of 23,500 vpd.

NE 3 Street is a two (2)-lane city maintained facility between SE 3 Avenue and N. Federal Highway (US 1/SR 5). The speed limit along this local roadway is not posted and a (2022) AADT volume of 1,330 vpd was calculated from recent turning movement counts.

NE 4 Street is a two (2)-lane city maintained facility within the project study area. The collector has a posted speed limit of 30 miles per hour (mph) and a current (2021) AADT volume of 2,800 vpd.

NE 6 Street is a two (2)-lane city maintained facility east of Andrews Avenue. The collector has a posted speed limit of 30 miles per hour (mph) and a current (2021) AADT volume of 6,600 vpd.

The Florida Department of Transportation (FDOT) is the source of all AADT volumes with the exception of NE 3 Street which was calculated from 2022 turning movement counts.

Study Intersections

For purposes of this study, the following seven (7) intersections were selected for detailed analysis.

-
- Broward Boulevard (SR 842) at SE/NE 3 Avenue,
 - NE 3 Street at NE 3 Avenue,
 - NE 3 Street at N. Federal Highway (SR 5/US 1),
 - NW/NE 4 Street at N. Andrews Avenue,
 - NE 4 Street at NE 3 Avenue,
 - NE 4 Street at N. Federal Highway (SR 5/US 1), and
 - NE 6 Street at NE 3 Avenue.

Transit Service and Facilities

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

- **Route 10** traverses Broward Boulevard, US 1 (N. Federal Highway) near the project site, and Sunrise Boulevard between the Broward Central Terminal (Broward Boulevard) and Mizner Park (NE 2 Street) in Boca Raton with approximately 30-minute headways on a typical weekday and 25-minute headways on a typical Saturday.
- **Route 20** traverses eastern Broward County (including NE 3 Avenue, NE 4 Street adjacent to the project site, US 1 (N. Federal Highway), NE 15 Avenue, Cypress Road, NW 6 Avenue and NW 3 Avenue) between the Broward Central Terminal (Broward Boulevard) and Broward Health North (Sample Road) with approximately 50-minute headways on both typical weekdays and typical Saturdays.
- **Route 50** traverses eastern Broward County between the Broward Central Terminal (Broward Boulevard) and Hillsboro Boulevard along NE 3 Avenue adjacent to the project site, Wilton Drive and Dixie Highway with 30-minute headways on a typical weekday and 35-minute headways on a typical Saturday.

Broward County Transit's community shuttle service (LauderGO!) increases the number of destinations accessible to residents through public transit. The Downtown Link trolley traverses SE 17 Street, Andrews Avenue, SE 2 Street, NW 1 Avenue, NE 6 Street, and NE/SE 3 Avenue on a continuous loop and is active Monday through Friday between 9:00 AM and 5:00 PM. The Downtown Link trolley provides convenient connection to the Las Olas Link, the Beach Link, the Neighborhood Link and the NW Community Link.

The Fort Lauderdale Brightline\Virgin Trains USA (an express inter-city rail system) station is located along the west side of NW 2 Avenue north of Broward Boulevard (approximately 3,130 feet from the project site measured along NE 3 Avenue, Broward Boulevard and NW 2 Avenue or 2,600 feet measured along NE 4 Street and NW 2 Avenue). Brightline\Virgin Trains USA currently provides non-stop service to downtown West Palm Beach and downtown Miami with planned future service to Orlando. Trains generally run at one-hour headways with one-half hour headways during the AM peak.

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 residential units and retail space is Land Use Code (LUC) 222 'Multifamily Housing (High-Rise)' and LUC 822 'Strip Retail Plaza (<40k)'.

Net New Project Trips

Trip Generation estimates provided in Table 1 'Trip Generation Summary Existing Uses' consider the project site as it exists today. As shown in Table 1, the existing light industrial building (ITE LUC 110) when fully occupied may have produced 37 vehicle trips per day with six (6) trips occurring during the AM peak hour (five (5) inbound and one (1) outbound) and five (5) trips occurring during the PM peak hour (one (1) inbound and four (4) outbound). Incorporating these existing trips and acknowledging the use of alternative modes of travel as described above, yields 4,299 net new vehicle trips per day, approximately 242 net new AM peak hour trips (86 inbound and 156 outbound), and approximately 315 net new PM peak hour trips (175 inbound and 140 outbound).

Reference Tables 1 and 2, attached.

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 and knowledge of the immediate area. A global distribution of 29 percent (29.0%) to and from the north, 32 percent (32.0%) to and from the south, 26 percent (26.0%) to and from the west and 13 percent (13.0%) to and from the east was utilized.

Detailed Intersection and Driveway Level of Service Analyses

Intersection capacity analyses were performed for all study intersections and the two (2) project driveways. 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 3.

According to the City of Fort Lauderdale Comprehensive Plan (Transportation Element), LOS 'E' is acceptable in the Downtown Core area. As shown in Table 3, attached, all study intersections are expected to operate within this acceptable level of service overall in future year 2026 with traffic from the project as proposed. Two intersections may have approaches that fall to LOS 'F' once project traffic is added:

-
- NE 4 Street at N. Federal Highway during the AM Peak - EB Approach, and
 - Broward Boulevard at NE 3 Avenue during the PM Peak - SB Approach.

Optimizing the signal timing at these two (2) locations is expected to provide relief as shown in Table 3.

Detailed Roadway Level of Service Analysis

A roadway segment analysis has been conducted for Broward Boulevard (SR 842) near NE 3 Avenue. Similar to the intersection analyses, these evaluations were conducted for existing, future background and future total conditions. Baseline volumes for the analyses have been developed from adjacent intersection approach and departure volumes. The volumes were then compared to level of service “D” service volume thresholds developed in the latest edition of the *QLOS Handbook* published by FDOT. Tables 4, 5 and 6, attached, show the adopted Level of Service criteria are expected to be maintained.

Conclusions and Recommendations

Conclusions and recommendations of the traffic study are as follows:

- As shown in Table 2, the project as proposed is expected to produce 4,299 net new vehicle trips per day, approximately 242 net new AM peak hour trips (86 inbound and 156 outbound), and approximately 315 net new PM peak hour trips (175 inbound and 140 outbound).
- Signalized and unsignalized intersections within the study area currently operate within acceptable levels of service overall and are expected to continue operating within acceptable levels upon buildout of the project as proposed.
- The unsignalized project driveways are expected operate within acceptable levels of service upon buildout of the project as proposed.
- 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 with special emphasis on the following:
 - NE 4 Street at N. Federal Highway during the AM peak, and
 - Broward Boulevard at NE 3 Avenue during the PM peak.

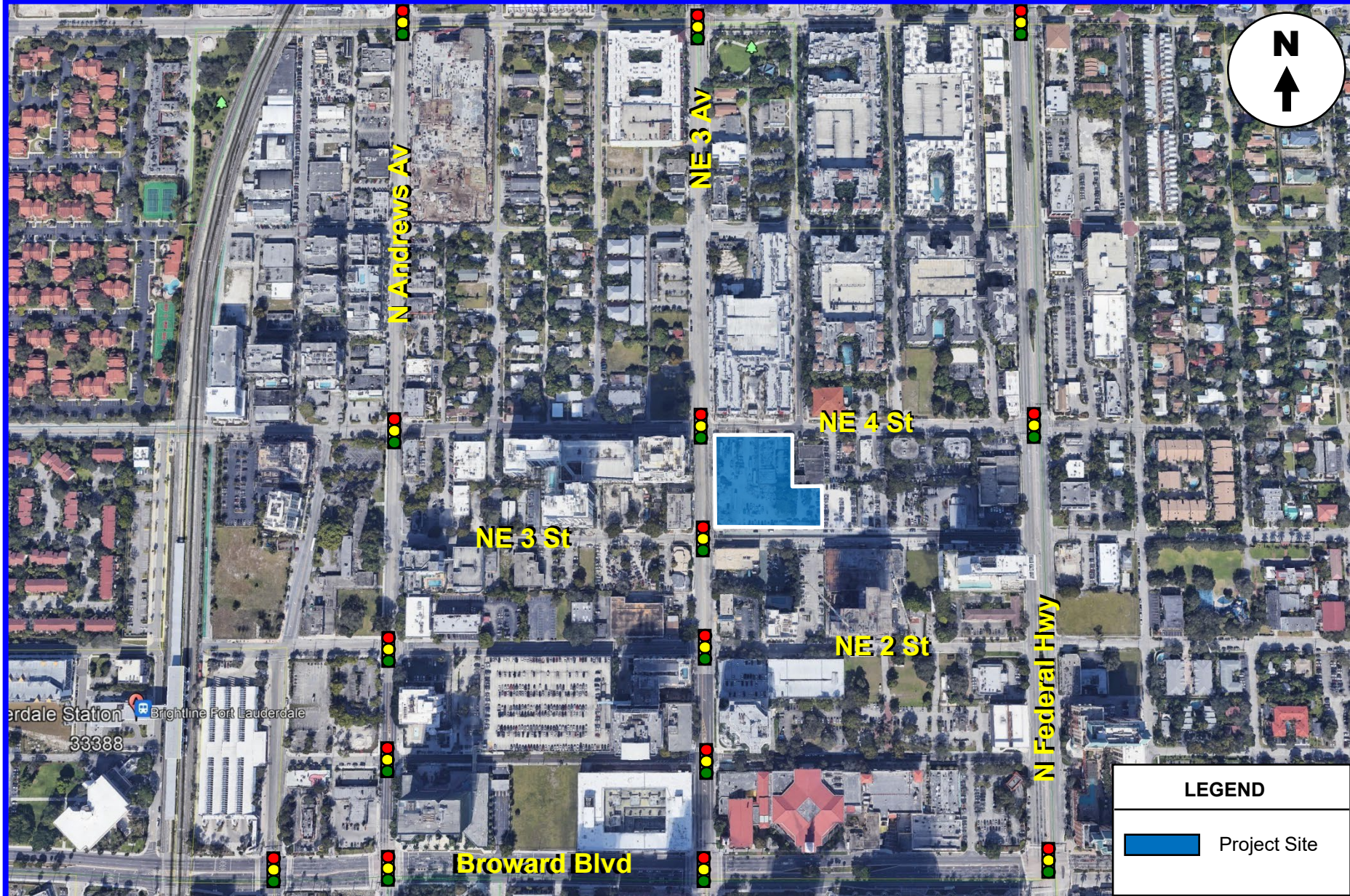


Table 1: Trip Generation Summary Existing Uses

Land Use	Scale	Units	AM Peak Hour			PM Peak Hour			Daily
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound	Total
General Light Industrial (LUC 110)	7.784	ksf	6	5	1	5	1	4	38
Subtotal			6	5	1	5	1	4	38
Internal (0%)									
Subtotal			6	5	1	5	1	4	38
Multi-Modal Reduction (2%)			0	0	0	0	0	0	(1)
Total			6	5	1	5	1	4	37

Source: ITE Trip Generation Manual (11th Edition)

Table 2: Trip Generation Summary Proposed Uses

Land Use	Scale	Units	AM Peak Hour			PM Peak Hour			Daily
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound	Total Trips
Multi-Family Housing, High Rise (LUC 222)	959	du	230	78	152	272	152	120	3,983
Retail (< 40k) (LUC 822)	11.405	ksf	31	19	12	85	43	42	711
Subtotal			261	97	164	357	195	162	4,694
Internal (3%, 8%)			(8)	(4)	(4)	(30)	(15)	(15)	(269)
Subtotal			253	93	160	327	180	147	4,425
Multi-Modal Reduction (2%)*			(5)	(2)	(3)	(7)	(4)	(3)	(89)
Total			248	91	157	320	176	144	4,336

Source: ITE Trip Generation Manual (11th Edition)

* obtained from 2020 Census, Tract 425.01

Net New Trips	242	86	156	315	175	140	4,299
----------------------	-----	----	-----	-----	-----	-----	-------

Table 3: Intersection Levels of Service

Intersection/Approaches	Existing (2022)	Future Traffic Conditions		
		Year 2026 Without Project	Year 2026 With Project	Year 2026 With Project Improvement
NE 6 St at NE 3 Av	B\12.8 (B\13.7)	B\12.9 (B\14.8)	B\12.8 (B\14.8)	
- NB Approach	A (A)	A (A)	A (A)	
- SB Approach	A (A)	A (A)	A (A)	
- EB Approach	C (C)	C (C)	C (C)	
- WB Approach	C (C)	C (C)	C (C)	
NW/NE 4 St at N. Andrews Av	B\11.9 (B\13.6)	B\14.6 (B\15.8)	B\15.0 (B\16.7)	
- NB Approach	A (A)	A (A)	A (A)	
- SB Approach	A (A)	A (A)	A (A)	
- EB Approach	C (C)	C (D)	C (D)	
- WB Approach	C (C)	D (D)	D (D)	
NE 4 St at NE 3 Av	B\11.3 (B\13.8)	B\12.5 (B\16.0)	B\13.1 (B\17.4)	
- NB Approach	A (A)	A (A)	A (B)	
- SB Approach	A (A)	A (A)	A (A)	
- EB Approach	C (C)	C (C)	B (C)	
- WB Approach	C (D)	C (D)	C (D)	
NE 4 St at N. Federal Hwy (US 1)	B\13.0 (B\11.8)	B\17.3 (B\13.4)	C\20.8 (B\17.4)	B\18.8
- NB Approach	A (A)	A (A)	A (A)	A
- SB Approach	A (A)	A (A)	A (A)	B
- EB Approach	E (E)	E (E)	F (E)	E
- WB Approach	E (E)	E (E)	E (E)	E
NE 3 St at NE 3 Av	A\5.0 (A\5.2)	A\8.4 (A\6.9)	A\8.8 (A\7.3)	
- NB Approach	A (A)	A (A)	A (A)	
- SB Approach	A (A)	A (A)	A (A)	
- EB Approach	C (C)	C (C)	C (C)	
- WB Approach	C (C)	C (C)	C (C)	
NE 3 St at N. Federal Hwy (US 1)				
- EB Approach	B (B)	C (B)	C (B)	
- WB Approach	B (B)	B (B)	B (B)	
Broward Blvd at NE 3 Av	D\40.8 (D\43.7))	D\50.8 (D\50.5)	E\55.6 (D\54.0)	(D\53.6)
- NB Approach	D (E)	D (E)	D (E)	(E)
- SB Approach	F (E)	F (E)	F (F)	(E)
- EB Approach	C (C)	C (C)	C (D)	(D)
- WB Approach	C (C)	D (D)	D (D)	(D)
Project Dwy at NE 3 St				
- SB Approach	NA	NA	A (A)	
Project Dwy at NE 4 St				
- NB Approach	NA	NA	B (C)	

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

Table 4: Existing (2022) Level of Service Analysis

Roadway	Segment	Number of Lanes	LOS D Capacity (vph)	Two-Way Volume AM		Two-Way Volume PM	
Broward Blvd	E of NE 3 Av	6LD	4,500	2,063	Under	2,336	Under
	W of NE 3 Av	6LD	4,500	2,426	Under	2,630	Under

**vph - vehicles per hour*

**'over' or 'under' denotes the roadway segment status of over or under capacity.*

Table 5: Future (2026) Level of Service Analysis

Roadway	Segment	Number of Lanes	LOS D Capacity (vph)	Two-Way Volume AM		Two-Way Volume PM	
Broward Blvd	E of NE 3 Av	6LD	4,500	2,215	Under	2,511	Under
	W of NE 3 Av	6LD	4,500	2,591	Under	2,792	Under

**vph - vehicles per hour*

**'over' or 'under' denotes the roadway segment status of over or under capacity.*

Table 6: Future (2026) With Project Traffic Level of Service Analysis

Roadway	Segment	Number of Lanes	LOS D Capacity (vph)	Two-Way Volume AM		Two-Way Volume PM	
Broward Blvd	E of NE 3 Av	6LD	4,500	2,215	Under	2,511	Under
	W of NE 3 Av	6LD	4,500	2,638	Under	2,852	Under

**vph - vehicles per hour*

**'over' or 'under' denotes the roadway segment status of over or under capacity.*