

Armando's Service Station

6348 Collins Avenue Miami Beach, Florida 33141

prepared for:

Armando's Service Station, Inc.

traffic statement





November 7, 2020

Mr. Jim Daily Armando's Service Station 6348 Collins Avenue Miami Beach, Florida 33141

Re: Armando's Service Station (6348 Collins Avenue) - Traffic Statement

Dear Jim:

Traf Tech Engineering, Inc. has prepared this traffic memorandum in connection with the proposed building expansion at the existing gasoline service station located at 6348 Collins Avenue in the City of Miami Beach in Miami-Dade County, Florida. The existing service station consists of four gasoline pumps (8 fueling positions) and a 3,058 square-foot convenience store. The proposed expansion project will maintain the four gasoline pumps and will expand the convenience store with a 2,000 square-foot additional for a total of 5,058 square feet. The existing and proposed site plans are contained in Attachment A. This traffic memorandum addresses the following topics:

- o Trip Generation and Trip Distribution
- o Traffic Circulation and Driveway Volumes

Trip Generation and Trip Distribution

A trip generation analysis was performed for the site using the trip generation equations published in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual (10th Edition)*. The trip generation analyses were undertaken for daily, AM peak hour, and PM peak hour conditions.

According to ITE's *Trip Generation Manual (10th Edition)*, the trip generation equations used for the analyses are presented below:

<u>Gasoline Service Station with Convenience Store (ITE Land Use 945)</u> *Daily Trips*

T = 1,440.02 (X)

Where T = average daily vehicle trip ends and X = 1,000 sf



AM Peak Hour

T = 75.99 (X) with 51% inbound and 49% outbound Where T = AM peak hour trip ends and X = 1,000 sf

PM Peak Hour

T = 88.35 (X) with 51% inbound and 49% outbound Where T = PM peak hour trip ends and X = 1,000 sf

Using the above-listed trip generation equations from the ITE document, a trip generation analysis was undertaken for the proposed expansion project. The results of this effort are documented in Table 1.

As shown in Table 1, the proposed expansion project is projected to generates approximately 1,180 new daily trips, approximately 57 new AM peak hour trips (29 inbound and 28 outbound) and approximately 68 new trips during the typical afternoon peak hour (35 inbound and 33 outbound). The expanded project will have a total driveway volume of approximately 7,284 daily trips, approximately 384 AM peak hour trips (196 inbound and 188 outbound) and approximately 447 PM peak hour trips (228 inbound and 219 outbound).

Since Collins Avenue is a one-way northbound facility adjacent to the site, all inbound vehicles will arrive from the south and all exiting traffic will head north on Collins Avenue. The project's trip distribution after the expansion project is in place is shown in Figure 1.

Traffic Circulation and Loading

As shown in the site plan contained in Attachment A, the site has two access driveways. Both driveways operate as left-turns in/left-turns out since Collins Avenue is a one-way northbound facility. The south driveway provides access to five (5) parking stalls (including one handicap parking space) and to the four (4) fuel pumps. The north access driveway will provide access to eight (8) parking spaces. Access to the fuel pumps is also provided via the north access driveway. The area designated for the gasoline pumps also serve as internal circulation between the north and south driveways. Additionally, a 10-feet by 20-feet loading space is provided on the north side of the site (first parking stall located immediately north of the building).



Sight Visibility

Due to the horizontal curve, sight distance restrictions currently exist at this site. However, given the low speed limit (30 mph) within this section of Collins Avenue, the required sight distance is approximately 205 feet per FDOT's Design Standards. Given the layout of the service station and the one-way (northbound) Collins Avenue, most of the exiting traffic is expected to use the north access driveway (the north access driveway provides much better visibility than the south access driveway). Hence, the area between the north and south driveways should not include landscaping that restricts visibility.

Please give me a call if you have any questions.

TRAF TECH ENGINEERING, INC.

Joaquin E. Vargas, P.E. Senior Transportation Engineer

TABLE 1 Trip Generation Summary (Existing Use) Armando's Service Station (6348 Collins Avenue)										
	Size			AM Peak Hou	r	PM Peak Hour				
Land Use	(sq ft)	Daily Trips	Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound		
Gasoline SS w/C Store (LUC 945)	3,058	4,404	232	118	114	270	138	132		
Driveway Trips		4,404	232	118	114	270	138	132		
Pass-by (-62%AM / -56% PM)	3,650	-2,598	-144	-73	-71	-168	-86	-82		
External Trips		1,806	88	45	43	102	52	50		

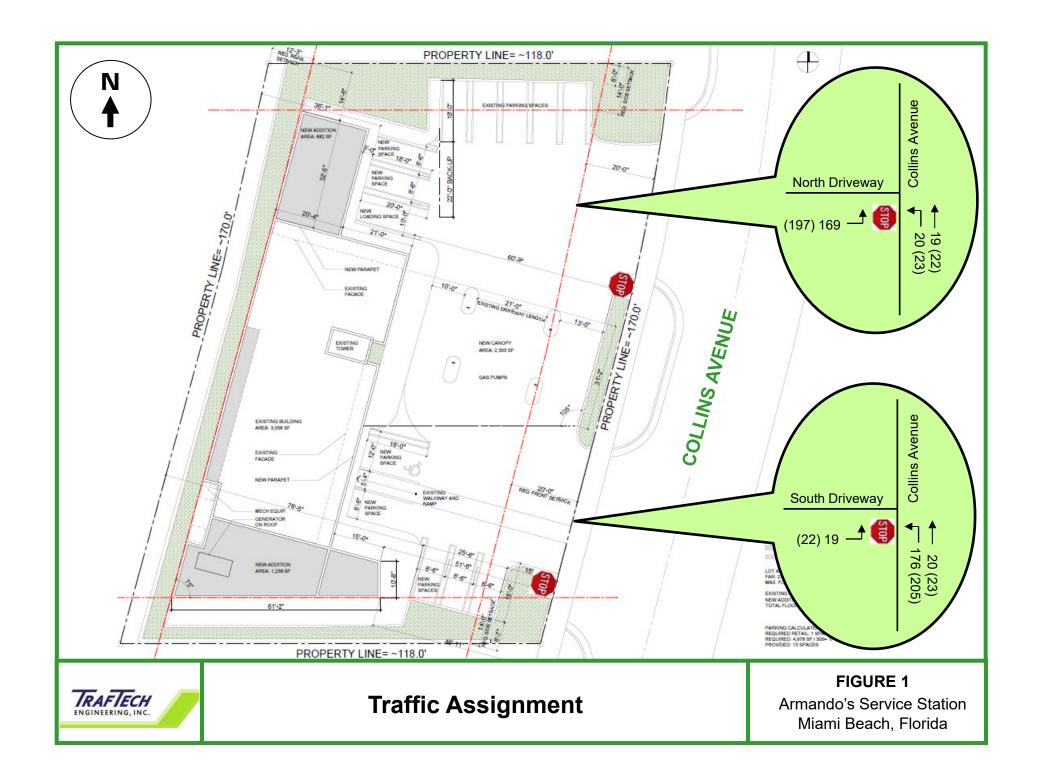
Source: ITE Trip Generation Manual (10th Edition)

TABLE 2 Trip Generation Summary (Proposed Use) Armando's Service Station (6348 Collins Avenue)										
	Size			AM Peak Hou	r	PM Peak Hour				
Land Use	(sq ft)	Daily Trips	Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound		
Gasoline SS w/C Store (LUC 945)	5,058	7,284	384	196	188	447	228	219		
Driveway Trips		7,284	384	196	188	447	228	219		
Pass-by (-62%AM / -56% PM)	3,650	-4,298	-239	-122	-117	-277	-141	-136		
External Trips		2,986	145	74	71	170	87	83		

Source: ITE Trip Generation Manual (10th Edition)

		AM Peak Hour			PM Peak Hour			
Proposed - Existing	Daily Trips	Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound	
Difference in Driveway Trips	2,880	152	78	74	177	90	87	
Difference in External Trips	1,180	57	29	28	68	35	33	





ATTACHMENT A

Site Plan for Armando's Service Station



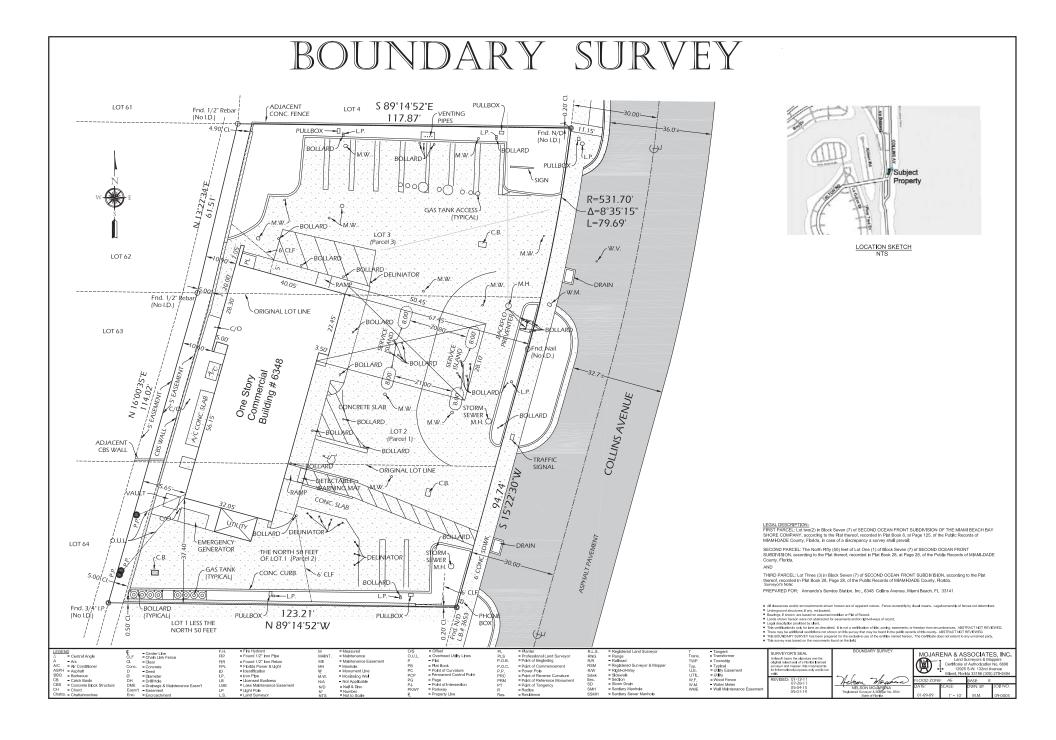
ARMANDO'S SERVICE STATION 6348 COLLINS AVENUE, MIAMI BEACH

FIRST SUBMITTAL 10-02-20 SCOPE OF WORK: DESIGN REVIEW APPROVAL



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FLOOR AREA CALCULATION

LOT AREA= 20,740 SF MAX. FAR ALLOWED= 2.0 / 41,480 SF

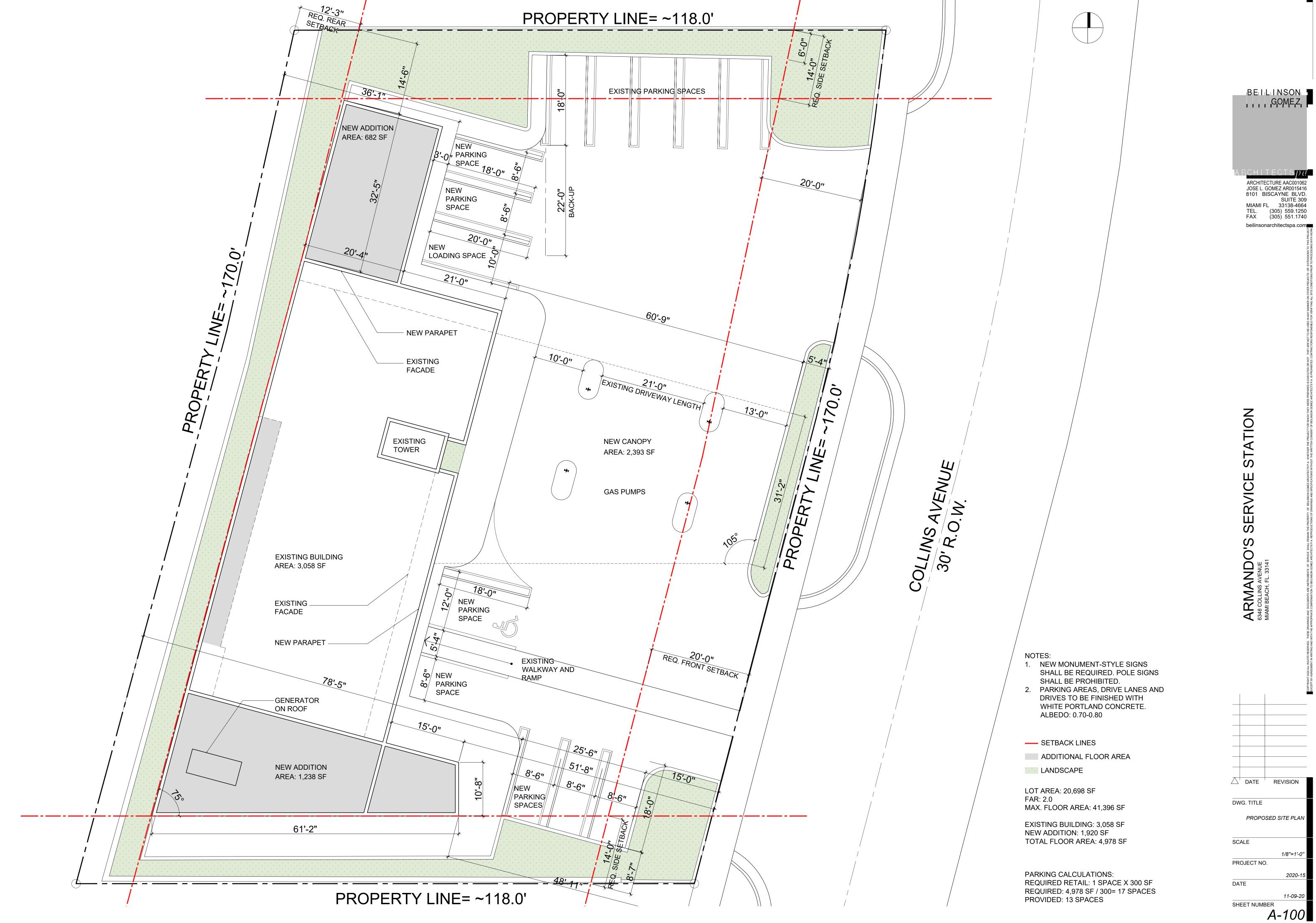
EXISTING BUILDING AREA= 3,058 SF

BUILDING ADDITION= 2,000 SF

TOTAL FLOOR AREA= 5,058 SF

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ARMANDO'S SERVICE STATION ROBERCHINS ARRESTED STATION ANA RESOLVE, 33 141



BEILINSON GOMEZ

1/8"=1'-0'