

October 29, 2024
Revised August 5, 2025

Mr. Jeff Fazio
Fazio Consulting
8300 NW 110th Lane
Parkland, FL 33076

Re: 14145 S. Military Trail – Conklin Car Wash - #PTC24-095
Traffic Statement

Dear Mr. Fazio:

The purpose of this letter is to provide a traffic statement for the above referenced project to determine if the proposed development meets the requirements of Article 12, Traffic Performance Standards, of the Palm Beach County (PBC) Unified Land Development Code (ULDC) and to respond to City of Delray Beach comments. The site is located on the west side of Military Trail south of Lake Ida Road in the City of Delray Beach, as shown on **Attachment 1**. It is proposed to develop a single lane automated car wash. The Parcel Control Number (PCN) is 12-42-46-14-03-002-0010. Access to the site is via two driveways to Conklin Drive. Buildout of this project is estimated to be 2027.

Attachment 2 provides the weekday Daily and Peak Hour trip generation comparison for the proposed use. The maximum weekday peak hour trip generation is 14 trips. Because the project generates fewer than 21 peak hour trips, a traffic study is not required. The project traffic has an insignificant impact on area roadways and is, therefore, in compliance with the Palm Beach County Traffic Performance Standards.

Weekday driveway volumes are provided on **Attachment 3**.

A queuing analysis was requested by the City. The peak hour of operation for a car wash is on a Saturday. **Attachment 4** provides the trip generation for this Saturday peak hour. To provide a worst-case scenario, it was estimated that the 24 peak hour Saturday inbound vehicles arrive within a 15 minute period. The queuing analysis is based on these peak trips, and processing times obtained from the operator. The northernmost lane is for retail customers while the other two lanes are for members only. Based on information from the operator, it is estimated that 60% of the customers are members. The processing time for the retail members was estimated at one minute while the member processing time is only two seconds. **Attachments 5A and 5B** provide the queuing analysis which evaluates the arrival times and the processing times to determine the projected queues for the retail lane and members lanes respectively. As shown on **Attachments 5A and 5B**, adequate storage is provided on-site for the proposed car wash operation so that no vehicles will stack onto Conklin Drive.

Additionally, with an attendant present during operating hours at the pay stations, the location of the bypass lane after the pay stations provides the quickest escape with no back up maneuvers and no disruption to the traffic flow.

Please contact me by phone or at atroutman@pindertroutman.com if you need any additional information or have any questions.

Sincerely,

Andrea M. Troutman, P.E.
President

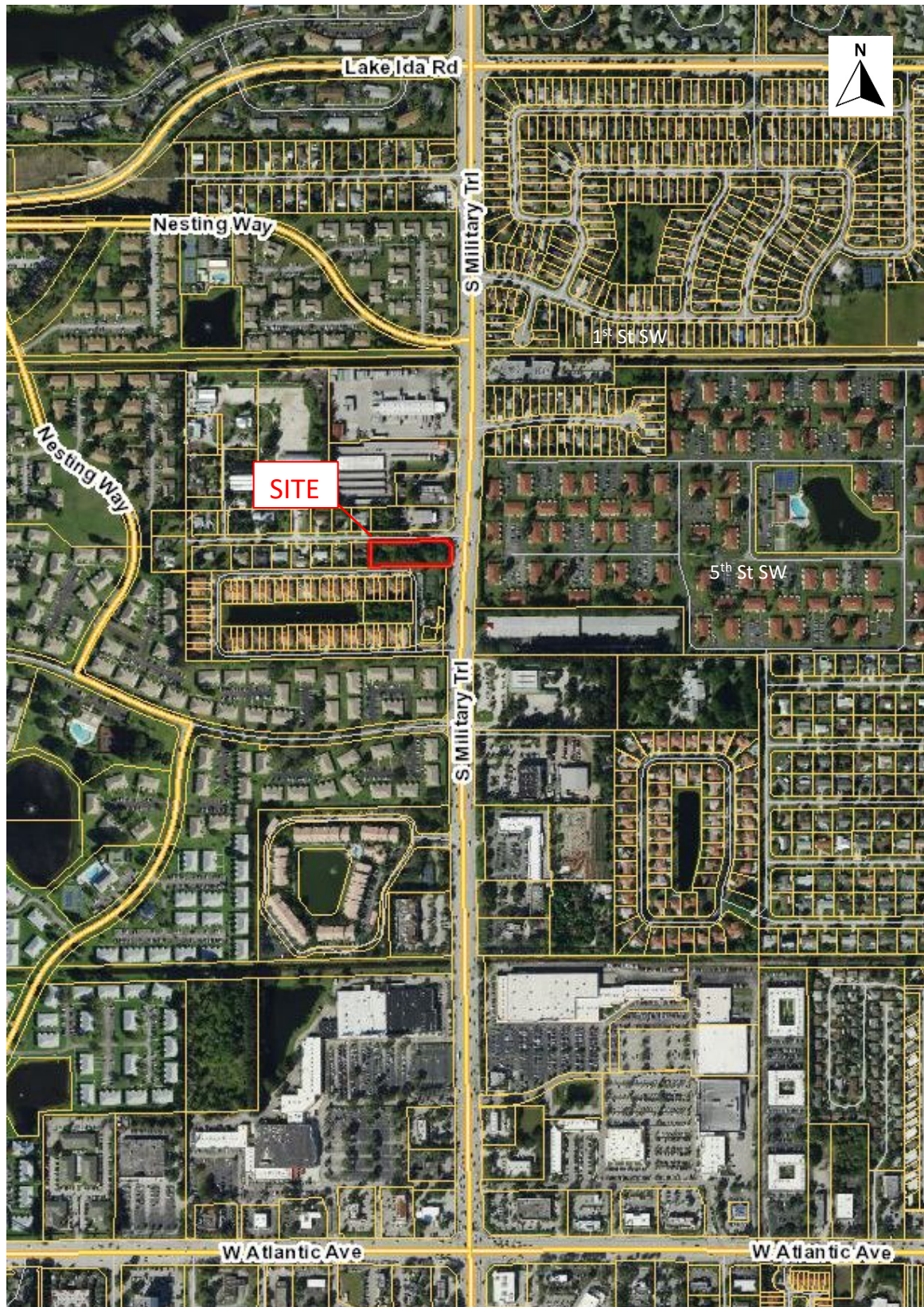
Attachments

Andrea M. Troutman, State of Florida, Professional Engineer, License No. 45409

This item has been electronically signed and sealed by Andrea M. Troutman, P.E. on 8/5/25 using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Attachment 1 Project Location

14145 S. Military Trail



Attachment 2
14145 S. Military Trail
Weekday Trip Generation - Proposed Use

DAILY

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips	Internal Trips		External Trips	Pass-by Trips (1)	New Trips	
						Trips	%				
Carwash (Automated)	PBC	1 Lane	166 / Lane	50%	166	-	0%	166	-	0%	166
TOTAL					166	-	0.0%	166	-		166

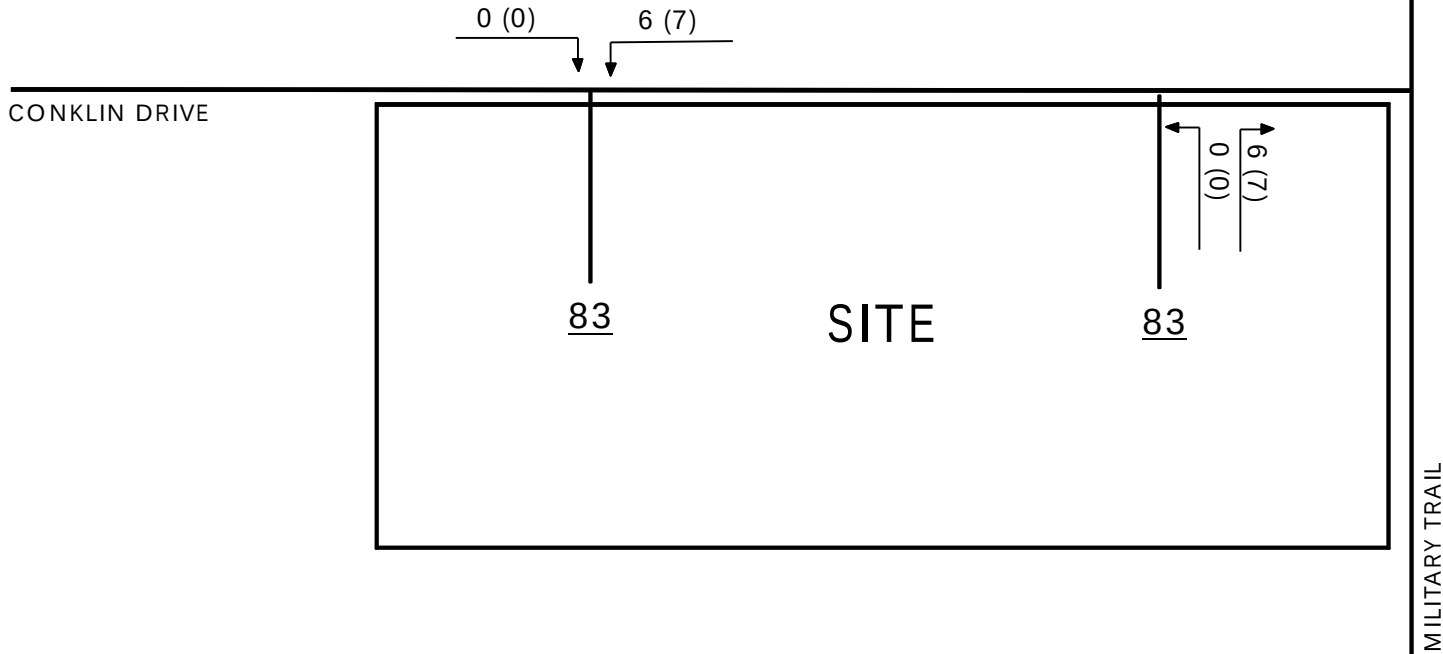
AM PEAK HOUR

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips			Internal Trips		External Trips			Pass-by Trips (1)	New Trips		
					In	Out	Trips	Trips	%	In	Out	Trips		In	Out	Trips
Carwash (Automated)	PBC	1 Lane	11.97 / Lane	50%	6	6	12	-	0%	6	6	12	-	6	6	12
TOTAL					6	6	12	-	0.0%	6	6	12	-	6	6	12

PM PEAK HOUR

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips			Internal Trips		External Trips			Pass-by Trips (1)	New Trips		
					In	Out	Trips	Trips	%	In	Out	Trips		In	Out	Trips
Carwash (Automated)	PBC	1 Lane	13.65 / Lane	50%	7	7	14	-	0%	7	7	14	-	7	7	14
TOTAL					7	7	14	-	0.0%	7	7	14	-	7	7	14

(1) Source: Palm Beach County Traffic Division and ITE Trip Generation, 11th Edition.



<u>LEGEND</u>	
XX	-AM PEAK HOUR
(XX)	-PM PEAK HOUR
<u>XX</u>	-ADT

24-095
8/5/25

14145 S. MILITARY TRAIL

ATTACHMENT 3
WEEKDAY PROJECT DRIVEWAY VOLUMES

PTC

Attachment 4
14145 S. Military Trail
Saturday Trip Generation

Peak Hour of Generator

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Gross Trips		
				In	Out	Total
Automated Car Wash	948	1,556 SF	30.40 / 1000 SF (50/50)	24	23	47

(1) Source: ITE, Trip Generation, 11th Edition.

Attachment 5A
14145 S. Military Trail
Queue Length Calculation - Retail Lane

Saturday Peak Hour Inbound Vehicles:	24	vehicles
40% Retail Customers (24 * 40%)	10	vehicles
Arrival Rate - vehicles per minute (10 veh/15 min) ¹ :	0.7	vpm
Processing Time per vehicle ² :	1	minute
Q = 0.7 vpm (Arrival Rate) X 1 minute (Processing Time)=	0.7	vehicles (rounded up to 1 veh)
Queue Calculated = 1 vehicle X 25 feet =	25	feet
Queue Storage provided:	104	feet (north retail lane)

¹ Assumed for worst case scenario that all peak hour vehicles arrive within 15 minute period.

² Based on payment processing time of 1 minute per vehicle for retail lane (information from operator). Returning customers (90%) have much lower processing times.

Attachment 5B
14145 S. Military Trail
Queue Length Calculation - Member Lanes

Saturday Peak Hour Inbound Vehicles:	24	vehicles
60% Member Customers (24 * 60%)	14	vehicles
Arrival Rate - vehicles per minute (14 veh/15 min) ¹ :	0.93	vpm
Processing Time per vehicle ² :	0.03	minutes
Q = 0.93 vpm (Arrival Rate) X 0.03 minute (Processing Time)=	0.028	vehicles (rounded up to 1 veh)
Queue Calculated = 1 vehicle X 25 feet =	25	feet
Queue Storage provided:	119	feet (middle member lane)
	105	feet (south member lane)
Total Queue provided:	224	feet

¹ Assumed for worst case scenario that all peak hour vehicles arrive within 15 minute period.

² Based on payment processing time of 2 seconds per vehicle for member lane (information from operator).