

Bowman

September 25, 2023

Kristhian Morales
Bowman
910 SE 17th Street, Suite 300
Fort Lauderdale, FL 33316

**RE: Chick-fil-A St Lucie West Boulevard Parking and Queueing Analysis
Project No. 010014-01-201**

Dear Mr. Morales:

Bowman has completed a queueing and parking analysis associated with the proposed redevelopment of a site located at 1611 NW St Lucie West Boulevard, in the City of Port St. Lucie, Florida. The site includes an existing 4,602-square foot Chick-fil-A building with 400 square feet of outdoor area, and a drive through facility. Modifications are proposed to the site to provide additional vehicular queue stacking within the CFA drive-through area. This modification will impact parking within the CFA site. This study includes a drive-through queueing analysis and a parking evaluation. The site plan is attached in **Appendix A**. An aerial photograph of the site is shown on **Figure 1**.

Figure 1 Site Location





Drive-Through Queuing Analysis

A drive-through queuing analysis was performed for the site to evaluate if the proposed stacking distance within the drive-through area would be sufficient to contain the drive-through demand.

Current Drive-Through Available Stacking

The existing site includes a drive-through with one lane prior to the order board, two (2) lanes in the vicinity of the order board, and one (1) lane beyond the order board. The total existing vehicular queue stacking area is approximately 470 feet from the pick-up window to the end of the drive-through queuing area. This area can accommodate approximately 21 vehicles, assuming 22 feet per vehicle. Additional stacking area is also available beyond the pick-up window.

Proposed Drive-Through Available Stacking

The proposed conditions will include two (2) lanes for the entire drive-through area. The total proposed vehicular queue stacking area is approximately 660 feet from the pick-up window to the end of the drive-through queuing area. This area can accommodate approximately 30 vehicles, assuming 22 feet per vehicle. Additional stacking area is also available beyond the pick-up window.

Vehicular Queue Data Collection

Vehicular queue data was collected at the site. Based on coordination with CFA, the peak period generally occurs on Fridays between 12:00 and 3:00 PM; therefore, vehicular queue data was collected on Friday, September 22, 2023 from 12:00 to 3:00 PM. The maximum number of vehicles in the queue was recorded in five-minute increments. The queue data is included in **Appendix B**. Based on the collected data, the maximum queue for the site was 14 vehicles, with an average queue of 10 vehicles; therefore, the proposed drive-through stacking area will be sufficient to accommodate the anticipated drive-through demand, as summarized in **Table 1**.

Table 1 Drive-Through Queue Summary

Proposed Drive-Through Stacking	Max Queue	Queues Contained in Drive-Through?
30 vehicles	14 vehicles	Yes

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Parking Analysis

A parking accumulation analysis was performed at the site to determine the actual parking demand for CFA.

Parking Requirement and Proposed Parking Supply

Based on the City of Port St. Lucie Code of Ordinances, Section 158.221(C)16, free-standing restaurants with drive through facilities have a required parking of 1 space per 75 square feet of gross floor area. The existing CFA site has an intensity of 4,602 square feet of building plus 400 square feet of outdoor area, requiring 67 parking spaces. With the modifications to the drive-through facility, the proposed parking supply will be reduced to 57 parking spaces; therefore, the proposed parking supply will not meet the City of Port St. Lucie parking requirements.

Parking Accumulation Analysis

Parking accumulation data was collected on Friday, September 22, 2023 from 12:00 to 3:00 PM and was recorded in 15-minute intervals. The parking data is included in **Appendix C**. Based on the collected data, the highest accumulation of parked vehicles for the site was 45 vehicles; therefore, the proposed parking supply will be sufficient to accommodate the parking demand, as summarized in **Table 2**.

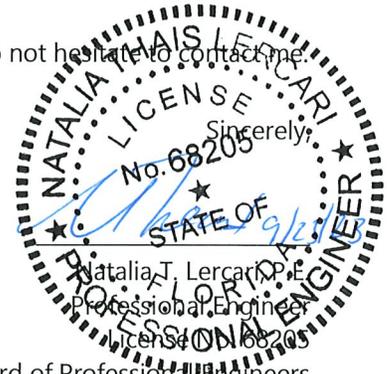
Table 2 Parking Summary

Parking Requirement per Code	Proposed Parking Provided	Meets Code?	Max CFA Vehicles Parked Onsite	Sufficient Onsite Parking?
67 spaces	57 spaces	No	45	Yes

Conclusion

Based on the analysis contained herein, sufficient queue stacking area will be provided on the CFA site for the drive-through facility without impacting site circulation. In addition, sufficient parking supply will be provided to accommodate the expected parking demand.

Should you have any questions or comments regarding this analysis, please do not hesitate to contact me.



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Appendix A

Site Plan

Appendix B

Queue Data

Drive-Through Queues

Location: Chick-fil-A, 1611 NW St. Lucie Boulevard West

City: Port St. Lucie, FL

Date: 9/22/2023 (Fri)

Time	Maximum Drive-Through Queue (# of Vehicles)		
	From Pickup Window to Order Board	From Order Board to End of Queue	Total Queue
12:00 PM	5	6	11
12:05 PM	5	5	10
12:10 PM	5	8	13
12:15 PM	3	10	13
12:20 PM	4	10	14
12:25 PM	4	6	10
12:30 PM	3	5	8
12:35 PM	2	7	9
12:40 PM	4	8	12
12:45 PM	3	10	13
12:50 PM	4	9	13
12:55 PM	3	7	10
1:00 PM	6	8	14
1:05 PM	4	9	13
1:10 PM	2	10	12
1:15 PM	3	8	11
1:20 PM	5	4	9
1:25 PM	3	3	6
1:30 PM	3	6	9
1:35 PM	3	7	10
1:40 PM	3	3	6
1:45 PM	4	7	11
1:50 PM	4	7	11
1:55 PM	2	6	8
2:00 PM	4	7	11
2:05 PM	3	4	7
2:10 PM	3	4	7
2:15 PM	3	4	7
2:20 PM	3	7	10
2:25 PM	3	4	7
2:30 PM	2	8	10
2:35 PM	4	7	11
2:40 PM	5	7	12
2:45 PM	5	4	9
2:50 PM	5	2	7
2:55 PM	3	4	7
Totals	130	231	361

Appendix C

Parking Data

Parking Study

Location: CFA -1611 NW St Lucie West Blvd
City: Port St. Lucie, FL

Date: 9/22/2023
Day: Friday

TIME	Maximum Parking Demand					
	Regular	Handicap	Curbside	Catering and Carry Out	Drive Through Pickup	All spaces
12:00 PM	38	1	4	1	1	45
12:15 PM	37	1	4	1	0	43
12:30 PM	33	1	2	0	1	37
12:45 PM	35	1	3	0	0	39
1:00 PM	38	1	2	1	0	42
1:15 PM	36	2	2	0	2	42
1:30 PM	35	1	1	0	1	38
1:45 PM	37	2	2	1	0	42
2:00 PM	38	1	3	0	0	42
2:15 PM	39	2	3	0	1	45
2:30 PM	38	2	2	1	0	43
2:45 PM	40	3	1	0	1	45