### Memorandum

To: Jennifer Liston

Zyscovich, Inc.

100 Biscayne Boulevard, 27th Floor

Miami, FL 33132

From: J. Suzanne Danielsen, P.E.

Date: September 23, 2024

Re: YMCA of South Florida - Fort Lauderdale, Florida

**Traffic and Parking Statement** 

As requested, Danielsen Consulting Engineers, Inc. (DC Engineers, Inc.) has prepared this traffic and parking statement specific to development of a new 45,953 square foot YMCA facility, and a 12-bed 12,951 square foot Broward Health medical center at 840/845 N. Federal Highway (SR 5/US 1) (along the east side of N. Federal Highway (SR 5/US 1) north of NE 8 Street) within municipal limits of the City of Fort Lauderdale. Figure 1 shows the location of the project site.

### TRIP GENERATION ANALYSIS

The project site is currently vacant. The Parker, an entertainment venue, is located east of the project site while public rights of way border the south, west and north property lines. Vehicular access is proposed at three (3) locations: one (1) two-lane, two-way driveway along NE 8 Street, one (1) one-lane, one-way driveway along NE 6 Terrace and one (1) two-lane, two-way driveway along NE 9 Street. A current site plan is included as Attachment A.

### **Trip Generation**

A trip generation analysis has been completed for the proposed YMCA and medical center using rates and formulae published in the Institute of Transportation Engineer's (ITE) report *Trip Generation* (11th Edition). The trip generation analysis was undertaken for daily, AM peak hour, and PM peak hour conditions. According to the referenced ITE report, the most appropriate land use categories and corresponding rates for the proposed development are as follows:

# Recreational Community Center – ITE Land Use #495

• Weekday: Ln(T) = 0.98Ln(X) + 3.42where T = number of trips and X = gross floor area (GFA)

 $\circ$  AM Peak Hour: T = 1.91(X) (66% in / 34% out)

o PM Peak Hour: Ln(T) = 0.71Ln(X) + 2.31 (47% in / 53% out)

# DC ENGINEERS, INC.

# Hospital – ITE Land Use #610

• Weekday: T = 22.32(X)where T = number of trips and X = beds

AM Peak Hour: T = 1.79(X) (72% in / 28% out)
 PM Peak Hour: T = 1.69(X) (33% in / 67% out)

The results of this effort are documented in report Table 1 '*Trip Generation Summary Proposed Uses*'. As shown in Table 1, the proposed YMCA facility and Broward Health medical center are expected to produce 1,617 vehicle trips per day (vpd) with 112 vehicle trips occurring during the AM peak hour (75 entering and 37 exiting) and 175 vehicle trips occurring during the PM peak hour (80 entering and 95 exiting).

### **PARKING ANALYSIS**

Off-street parking requirements specific to the City of Fort Lauderdale require 320 parking spaces for the land uses proposed. Table 2 below shows each land use, parking rate and number of spaces required by code. The current site plan (Attachment A) shows the proposed development will provide 161 parking spaces (50%).

Table 2: Parking Generation (Fort Lauderdale ULDR's)

Land Use	Intensity (sf)	Rate	Parking Spaces 111.5	
Wellness Areas	22,295	1/200		
Youth Development	2,736	1/325	8.4	
Assembly	2,179	1/400	5.4	
Locker Rooms/Restrooms	3,377	1/250	13.5	
Office (YMCA/City)	2,578	1/250	10.3	
Circulation/Lobby/Storage	9,920	1/250	39.7	
Equipment/Stairs	2,868	=	-	
Subtotal	45,953		188.8	
Hospital	12,951 (12 beds)	2/bed	24.0	
Subtotal	12,951		24.0	
Pool-Lap	3,555	1/200	17.8	
Pool-Teaching Pool	1,245	1/200	6.2	
Subtotal	4,800		24.0	
Total			236.8	

Historic data published by the Institute of Transportation Engineers (ITE) in the document *Parking Generation* (6<sup>th</sup> Edition) has been considered in place of rates provided within the City's Unified Land Development Regulations for the proposed uses. Table 3 below shows that the ITE parking generation rates yield a project-specific parking demand of 154.6 parking spaces. Although rates and formulae for LUC 495 'Recreational Community Center' include many onsite educational/athletic opportunities including nursery school, meeting rooms, swimming pools and saunas, to provide a conservative analysis parking demand for the swimming pools was calculated separately using ULDR rates.

**Table 3: Parking Generation (ITE)** 

Land Use	Intensity (sf)	Rate	Parking Spaces		
Wellness Areas	22,295				
Youth Development	2,736				
Assembly	2,179				
Locker Rooms/Restrooms	3,377				
Office (YMCA/City)	2,578				
Circulation/Lobby/Storage	9,920				
Equipment/Stairs	2,868				
Subtotal (LUC 495)	45,953	P=1.44(X)+17.73	83.9		
Hospital	12,951 (12 beds)				
Subtotal (LUC 610)	12,951	P=3.89(X)	46.7		
Pool-Lap	3,555				
Pool-Teaching Pool	1,245				
Subtotal	4,800	1/200*	24.0*		
Total			154.6		

<sup>\*</sup>City ULDR rate.

With 161 parking spaces provided, the proposed YMCA facility is expected to have adequate parking to meet all anticipated needs.

### **CONCLUSION**

Based upon the foregoing analysis, the proposed project will likely require a comprehensive traffic impact study for the following reason:

• Unified Land Development Regulations (ULDR's) specific to the City of Fort Lauderdale stipulate that when a proposed project generates more than 1,000 net new vehicle trips per day, a comprehensive traffic study is required. The proposed YMCA of South Florida, as proposed, is expected to produce 1,617 vehicle trips per day as shown in Table 1.

In addition, historic data published by the Institute of Transportation Engineers (ITE) in the document *Parking Generation* (6<sup>th</sup> Edition) shows that ITE parking generation rates yield a project-specific parking demand of 154.6 parking spaces. With 161 parking spaces provided, the proposed YMCA facility is expected to have adequate parking to meet all anticipated needs.

# DC ENGINEERS, INC.

Of course, please do not hesitate to contact me directly with any questions you may have.

Sincerely,

DC ENGINEERS, INC.

J. Suzanne Danielsen, P.E. Senior Transportation Engineer

J. Smann Tashirkan

J. Suzanne Danielsen, P.F.

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**Table 1: Trip Generation Summary Proposed Uses** 

			AM Peak Hour			PM Peak Hour			Daily
Land Use	Scale	Units	Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound	Total Trips
Recreational Community Center (LUC 495)*	50.753	ksf	97	64	33	164	77	87	1,434
Hospital (LUC 610)	12	beds	21	15	6	20	7	13	268
Subtotal			118	79	39	184	84	100	1,702
Internal (0%, 0%)			0	0	0	0	0	0	0
Subtotal			118	79	39	184	84	100	1702
Multi-Modal Reduction (5%)			(6)	(4)	(2)	(9)	(4)	(5)	(85)
Total			112	75	37	175	80	95	1,617

Source: ITE Trip Generation Manual (11th Edition)

DC Engineers, Inc.

<sup>\*</sup> Includes 45,953 sf building area and 4,800 sf pool area.











