BOLTON & MENK
Real People. Real Solutions.

418 S Dawson Street
Raleigh, NC 27596

Ph: (919) 719-1800
Bolton-Menk.com

November 8, 2024

Meredith Gruber, PLA, AICP
Planning Director, Town of Rolesville
P.O. Box 250
502 Southtown Circle
Rolesville, NC 27571
919-554-6517
meredith.gruber@rolesville.nc.gov

Reference: Pine Glo Recreation
Rolesville, North Carolina

Subject: **DRAFT –** Trip Generation Memorandum

Dear Ms. Gruber:

This Trip Generation Memorandum provides the trip generation potential for the proposed Pine Glo Recreation development to be located along S Main Street in Rolesville, North Carolina. The proposed development is assumed to consist of a recreational center with a maximum building footprint of 60,000 square feet (SF). Access to the site is proposed via two (2) full-movement driveways along S Main Street. Refer to the attachments for a preliminary site plan

It should be noted that the proposed development is expected to be a recreational facility with a focus on specialized training for youth sports. Due to the unique nature of the facility, it was determined that traffic data would be collected at an existing similar site to calculate the trip generation potential for the proposed development. Although the ITE *Trip Generation Manual, 11th Edition* does have a land use for recreational facilities (LUC 495), its description did not accurately align with the description of the proposed development.

Per North Carolina Department of Transportation (NCDOT) Congestion Management guidelines, a Traffic Impact Analysis (TIA) is required if the proposed development is anticipated to generate more than 3,000 daily trips. Based on the Town of Rolesville's (Town) Land Development Ordinance (LDO), a TIA is required if the proposed development is anticipated to generate 1,000 daily trips or 100 peak hour trips.

Trip Generation

In an effort to provide an accurate representation of the average daily, weekday AM and PM peak hour trips for the proposed development, traffic counts were conducted at the existing Proehlific Park in Greensboro, NC. Proehlific Park was selected as a similar site due to its comparability to the recreational land use of the proposed development. Proehlific Park recreational center consists of a building footprint of approximately 58,000 SF.

Turning movement counts were conducted at the existing Proehlific Park driveway along Jessup Grove Road and in October of 2024 by Burns Service Inc. (BSI). Data was collected on a typical weekday during the site's typical operations (5:00 AM – 9:00 PM) period while schools were in session. It should be noted that when asked to collect operations data on-site, Proehlific Park declined to allow traffic counters on the property. **Table 1** provides the current number of trips generated by the existing Proehlific Park site based on the 2024 traffic count data, as well as trip generation rates (trips per 1,000 SF) calculated to determine the estimated trip generation potential for the proposed development. Refer to the attachments for a copy of the count data collected at the existing Proehlific Park site.

Table 1: Trip Generation Summary – Proehlific Park (Based on October 2024 Count Data)

Land Use	Intensity	Daily Traffic (vpd) *	Weekday AM Peak Hour Trips (vph)		Weekday PM Peak Hour Trips (vph)	
			Enter	Exit	Enter	Exit
Existing Proehlific Park	58,000 SF	1,177	63	23	105	92
Calculated Trip Generation Rates (based on October 2024 count data)						
Daily – 20.29 trips/1,000 SF						
Weekday AM Peak Hour – 1.48 trips/1,000 SF			**Weekday AM Peak Hour –** 3.40 trips/1,000 SF			
Enter: 73%	Exit: 27%		Enter: 53%		Exit: 47%	

*Based on the 2024 traffic count data from (5:00 AM – 9:00 PM) period.

The existing Proehlific Park site is expected to generate 20.29 trips per 1,000 SF daily on the roadway network. The weekday AM peak hour is expected to generate 1.48 trips per 1,000 SF with 73% of vehicles entering and 27% of vehicles exiting, while the weekday PM peak hour is expected to generate 3.4 trips per 1,000 SF with 53% of vehicles entering and 47% of vehicles exiting. It should be noted that the rates calculated from the observed data were determined to be lower for the daily trips and AM peak hour trips and higher for the weekday PM peak hour trips compared to the rates provided in the ITE *Trip Generation Manual*, 11.1 Edition for LUC 495.

The proposed development is assumed to consist of a recreational center with a maximum building footprint of 60,000 SF. Average daily, AM peak hour, and PM peak hour trips for the proposed development were estimated using the calculated trip generation rates shown in **Table 1**. **Table 2** summarizes the number of trips expected to be generated for the proposed development based on the rates calculated in **Table 1**.

Table 2: Trip Generation Summary – Pine Glo Recreation*

Land Use	Intensity	Daily Traffic (vpd)	Weekday AM Peak Hour Trips (vph)		Weekday PM Peak Hour Trips (vph)	
			Enter	Exit	Enter	Exit
Proposed Pine Glo Recreation Development	60,000 SF	1,218	65	24	108	96

*Daily, weekday AM and PM peak hour trips were determined based on the existing Proehlific Park site trip generation rates from **Table 1**.

Based on the trip generation rates calculated in **Table 1**, the proposed Pine Glo Recreation development is anticipated to generate approximately 1,218 total site trips on the roadway network daily. Of the daily traffic volume, it is anticipated that 89 trips (65 entering and 24 exiting) will occur during the weekday AM peak hour and 204 trips (108 entering and 96 exiting) will occur during the weekday PM peak hour.

It should be noted that the daily traffic volume generated by the proposed development is expected to be below the NCDOT's thresholds for a TIA (3,000 daily trips); however, based on the Town's LDO, the proposed development meets the thresholds to require a TIA (1,000 daily trips or 100 peak hour trips).

Conclusion

The proposed Pine Glo Recreation development was reviewed to determine the trip generation potential for the site. Based on the trip generation potential determined utilizing the rates calculated from observed traffic data at an existing similar site, it was determined that the proposed development is under the NCDOT thresholds for a TIA; however, a TIA may be required by the Town as the proposed development meets the thresholds for a TIA based on the Town's LDO.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,
Bolton & Menk, Inc.

Danielle Troutman, PE
Transportation Project Engineer

Attachments: Preliminary Site Plan
Traffic Count Data