## Memorandum

Date: September 3, 2024

**Subject:** Trip Generation Study and Traffic Count Data for Proposed Residential Subdivision

JM Turk Road at Stanley Road, Hall County, Georgia

The vehicular trips that will be generated by a proposed residential subdivision in Hall County, Georgia, were calculated. The site is located along the east side of JM Turk Road at Stanley Road, as shown in Figure 1. The development will consist of a 198 detached single family homes and 58 attached townhomes, for a total of 256 homes. The project will be served by one vehicular access on JM Turk Road at the current location of its intersection with Stanley Road. A second access will be provided at the end of Guth Road, which will be gated for emergency use only. The site plan is presented in Figure 2.

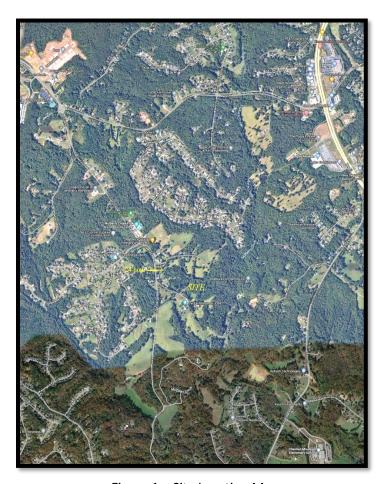


Figure 1 – Site Location Map

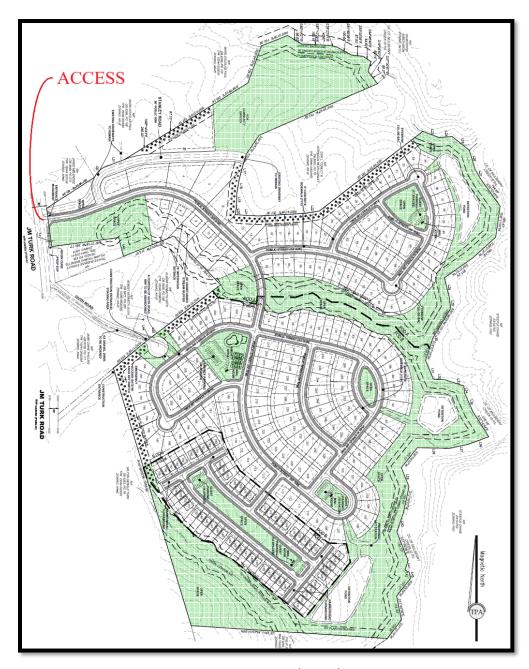


Figure 2 – Proposed Site Plan

Trip generation is an estimate of the number of entering and exiting vehicular trips that will be generated by the proposed development. The volume of traffic that will be generated by the subdivision was calculated using the equations in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition* (the current edition). ITE Land Use 210 – Single Family Detached Housing was chosen as representative of the detached houses and ITE Land Use 215 – Single Family Attached Housing was chosen for the townhomes. The trip generation is summarized in Table 1. A traffic impact study was prepared for a previous level of development on this site, which consisted of 196 detached homes and 128 townhomes, for a total of 324 homes. The trip generation for that previous level of development is also summarized in Table 1 to provide a comparison with the current proposal.

Table 1 – Proposed Subdivision Trip Generation

Land Use	ITE Code	Size	A.M. Peak Hour			P.M. Peak Hour			24-Hour		
			In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Current Proposal											
Detached Houses	210	198 homes	35	104	129	119	70	189	946	946	1,892
Townhomes	215	58 homes	<u>6</u>	18	24	<u>18</u>	<u>13</u>	<u>31</u>	<u>196</u>	<u>196</u>	392
Total		256 homes	41	122	153	137	83	220	1,142	1,142	2,284
Previous Proposal											
Previous Proposal		324 homes	49	149	188	161	99	260	1,400	1,400	2,800
Difference Between Previous and Current		-68 homes	-8	-27	-35	-24	-16	-40	-258	-258	-516

The currently-proposed subdivision will generate 153 trips in the morning peak hour, 220 trips in the evening peak hour, and 2,284 daily trips. This represents a decrease in volumes from the level of development evaluated in the traffic impact study of 35 less trips in the morning peak hour, 40 less trips in the evening peak hour, and 516 less daily trips.

Twenty-four hour traffic volume counts were collected on JM Turk Road at the proposed project access location for the original traffic impact study, in May 2023, then again for an updated traffic impact study for the project in January 2024. For this memorandum, another count was collected at the end of August 2024. These counts are summarized in Table 2.

Table 2 – 24-Hour Counted Traffic Volume on JM Turk Road at Stanley Road (Project Access Location)

Count Date	Northbound	Southbound	Two-Way	
Tuesday, May 16, 2023	692	724	1,416	
Thursday, January 18, 2024	685	700	1,385	
Wednesday, August 28, 2024	729	769	1,498	

The analysis in the traffic impact study was based on the May 2023 traffic counts. When the study was updated in January 2024, there was a small decrease in volumes. The decrease was minimal, so that no downward adjustment was made in the volumes in the analysis in the traffic impact study from the May 2023 volumes. The current, August 2024 count reflects a small increase of 5.8% from the volumes used in the analysis in the traffic impact study. The analysis in the traffic impact study revealed excellent existing operations, with all locations operating at Level of Service (LOS) A or B and no improvements recommended. The future analysis in the traffic impact study, with the 324 home development, revealed continued excellent operations, with all locations operating at LOS A or B and no improvements recommended. With the small increase in traffic counts plus the decreased trips from the smaller proposed development, future traffic operations with the currently-proposed development are expected to be comparable to the results in the traffic impact study, with excellent operations at all study intersections.