May 9, 2023



Mr. Tommy Yan Castlemore Holdings MIMA, LLC 21 W. End Ave, #2410 New York, NY 10023

RE: Trip Generation Study for Proposed Yan Property Campground, 38 Hudson Lane, Town of Esopus, Ulster County, New York; CM Project No. 123-195

Dear Mr. Yan,

Creighton Manning Engineering, LLP (CM) has completed a trip generation study for the proposed development of a campground located at 38 Hudson Lane in the Town of Esopus. This evaluation is based on information provided in the "Site Plan" dated March 6<sup>th</sup>, 2023 prepared by Willingham Engineering (see Attachment A). A map illustrating the project location is shown on Figure 1.



## 1.0 Project Description

The proposed campground will consist of 47 cabins, mostly one-bedroom (39 units) with some (8) two-bedroom units. Access is provided from Hudson Lane approximately 500 feet east of River Road. Arriving guests, having checked in online (likely by their smart phone) will be granted keyless access to the cabin; there's no need to physically check in/out with the site manager.

## 2.0 Traffic Assessment

## Trip Generation

Trip generation determines the quantity of traffic expected to travel to and from a given site. <u>The Institute of Transportation Engineers' (ITE) Trip Generation Manual</u>, 11<sup>th</sup> Edition, is the industry standard used for estimating trip generation for proposed land uses based on data collected at similar uses. Upon review of

the *Trip Generation Manual*, Land Use Code (LUC) 416 "Campground/Recreational Vehicle Park" was cited for the proposed development as it aligns with the intended use of the buildings.

CM has assisted other clients in the development of campgrounds and have found that the peak hours of traffic for similar sites tend to occur during the Friday afternoon and Sunday morning peak periods, like a typical hotel. ITE does not provide data for weekends, so weekday AM data and PM data were used. During the AM peak hour it is expected that a total of 10 trips would be generated and during the PM peak hour it is expected that a total of 14 trips would be generated. Table 1 summarizes the ITE trip generation estimates.

Table 1 - Trip Generation Summary (Weekday)

Land Use	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
47 Cabins - ITE	4	6	10	9	5	14

CM also used data from previous campground projects to compare the trip generation results. Based on data collected on a Friday afternoon and Sunday/Monday morning (Monday in the case of Labor Day weekend), the average Friday peak hour was 0.34 trips per site, and 0.50 trips per site for Sunday morning. This suggests that the project would generate 16 trips in the Friday afternoon peak hour, and 24 trips in the Sunday peak hour. This magnitude of traffic is less than the ITE threshold of 100-site generated vehicles on any one approach for off-site intersection analysis. This guidance was developed as a tool to identify locations where the magnitude of traffic generated has the potential to impact operations at off-site intersections and screen out locations from requiring detailed analysis that do not reach the 100-vehicle threshold and are unlikely to require mitigation.

## 3.0 Conclusions

The proposed project includes the construction of 47 cabins with an estimated weekday peak hour trip generation of 10 to 14 trips, and weekend (Friday and Sunday peak hours) of 16 to 24 trips. This magnitude of traffic is very low and will not have any significant traffic impacts; therefore, no road capacity improvements are necessary to accommodate the project.

Please call our office if you have any questions or comments regarding the above analysis.

Respectfully submitted,

Creighton Manning Engineering, LLP

Kenneth Wersted, PE, PTOE

Associate

C: Matt Towne – Willingham Engineering

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\*Did this excerpt from the ITE Trip Generation manual take into account Hudson Lane is a dead-end road?



It doesn't appear to based on the verbiage provided.