

TECHNICAL MEMORANDUM

December 11, 2024

Project# 30374

To: Darren Deiss
The BoatYard-On the Mountain
From: Mychal Loomis, PE/TE/PTOE/RSP
CC: Randy Haislet Jr., RKA Architects
RE: San Bernardino County Boat Storage Trip Generation Analysis

Introduction

Kittelison & Associates, Inc. (Kittelison) has prepared a Trip Generation Analysis to support the development review for a boat storage facility at 32864 Hilltop Boulevard, Arrowbear Lake, CA. Currently, there are three permitted buildings within the property. The project proposes constructing three new multi-level personal boat storage facilities and an office that will serve the whole property. The 328-165-16 APN is divided into two zoning designations: Hilltop/General Commercial – Sign Control Primary (HT/CG-SCp) and Multiple Residential (RM). This project will only develop the HT/CG-SCp part of the property. The construction and development will occur in a single phase. According to San Bernardino County's Transportation Impact Study Guidelines, a Letter Report is required to address the impacts of small-scale projects in the immediate area that do not meet the criteria for a full Transportation Impact Study.

Trip Generation

This Trip Generation Analysis Memorandum was prepared based on the anticipated operational logistics of the project, along with supporting information, to estimate the potential daily, AM, and PM peak-hour trips generated by the proposed development. The analysis assumes Buildings 1 and 3 will each store approximately 81 boats and Building 2 will store approximately 90 boats and include a first level office area. Please refer to the attached site plan for further details.

SITE OPERATIONS

A site designated for boat storage is expected to generate a low volume of daily traffic. The proposed facility is exclusively intended for personal boat storage, with no repairs, rentals, or sales conducted on-site. Two employees staff the facility. Business operations are seasonal, running by appointment only. During the summer months, the facility operates from 10:00 AM to 2:00 PM. In the winter months (November to April), appointments are available, though designated opening hours are not specified. Seasonal operations involve moving 252 boats and their corresponding trailers in and out of the site. The site operator does the pick-ups and drop-offs of boats. Approximately 80% of trucks delivering or

retrieving boats are expected to do so twice per year- one trip entering the yard between September and November and one trip exiting the yard between May and June. Assuming approximately 200 boats are moved each season over the course of three months, it is anticipated there would be no more than 5 boats per day and therefore less than 10 daily trips per day.

ITE TRIP GENERATION

To help validate the trip generation based on logistics, **Table 1** below shows the estimated trip generation derived from the ITE Trip Generation Manual 11th Edition, utilizing traffic code 151 (mini warehouse). This land use code is most applicable as there is not an existing code specifically for a boat storage facility. This estimate uses the mini warehouse data with the number of parking spaces serving as the independent variable instead of storage units. The rates for mini warehouse are calculated based on increments of 100 storage units (equivalent to boat storage spaces). The mini warehouse was selected as the best option as the expectation that trip characteristics and hourly patterns are likely to be similar, given that people typically visit these facilities only when accessing items stored within their unit, or in this context, when they need to access their boat.

Table 1: ITE Trip Generation

Land Use	ITE Code	Intensity	Daily Trip Ends	AM Peak Period			PM Peak Period		
				In Trips	Out Trips	Total	In Trips	Out Trips	Total
Mini Warehouse	151	2.52 Storage Units (100s)	45	2	1	3	2	2	4
Total			45	2	1	3	2	2	4

Conclusion

The proposed boat storage facility will include 252 storage stalls, and an office located in the northeast section of the site. Based on the closest land use in the ITE Trip Generation Manual, the facility is expected to generate a maximum of 45 trips per day, with up to 3 trips occurring during the AM peak hour and 4 trips during the PM peak hour. The trip generation is anticipated to be even less based on the owner's planned operations and logistics of the site use.

Based on these projections, the project is exempt from a Vehicle Miles Traveled (VMT) analysis, as it is projected to generate fewer than 110 daily vehicle trips.

The project is also exempt from requiring a transportation impact study under the County's Traffic Study Guidelines, as it does not meet any of the following criteria:

- If a project generates 100 or more trips without consideration of pass-by trips during any peak hour.
- If a project is located within 300 feet of
 - The intersection of two streets designated at Collector or higher in the County's General Plan or the Department's Master Plan **or**
 - An impacted intersection as determined by the Traffic Division
- If this project creates safety or operational concerns.
- The project has the potential to generate VMT that could result in a transportation impact as noted in the significance criteria.
- If a project generates less than 100 trips without consideration of pass-by trips during any peak hour, a study maybe required if there are special concerns.

A transportation study may be required only if special concerns are identified, but no such concerns are noted for this project.