

TECHNICAL MEMORANDUM

TO: Alex Elvin, DRI Coordinator
Martha's Vineyard Commission

FROM: Matthew W. Skelly, PE, PTOE
Katherine O'Shea, EIT

DATE: May 17, 2022

RE: Trip Generation Assessment
Main Street Medicinals— 60 Mechanic Street, Vineyard Haven
Fuss & O'Neill Reference No. 20210587.A10

In their most recent business projections, Main Street Medicinals is expecting an average of 60 transactions per day at their Mechanics Street location in Tisbury, MA. Because each customer makes two trips (one entering, one exiting) this would equate to 120 daily trips generated by the dispensary, assuming the conservative scenario that all customers arrive in single occupancy vehicles.

Typically, peak hour trips represent approximately 10 percent of daily traffic generated by a retail development. Therefore, based on 120 daily trips, the proposed dispensary may be expected to generate 12 trips (6 entering, 6 exiting) during its peak hour of operations.

The Institute of Transportation Engineers (ITE) Trip Generation Manual estimates the number of trips that a development may be expected to generate based on the land use, time of day, and development square footage. Although the Trip Generation Manual is an industry-accepted resource, it may overestimate the number of peak hour trips in this instance given the island location of the proposed development.

ITE Trip Generation Manual, 10th Edition, predicts 28 vehicle trips (14 entering, 14 exiting) during the afternoon peak hour, and 48 vehicle trips (24 entering, 24 exiting) during the Saturday peak hour. Compared to the projected daily transactions, ITE overestimates the afternoon peak hour trips by approximately 133% and the Saturday peak hour trips by 400%.

The capacity analysis performed with ITE predicted Trip Generation indicates increases in delay of five to ten seconds per vehicle during the afternoon peak hour, and 20 to 30 seconds per vehicle during the Saturday peak hour. Given the peak hour trip generation predicted by the business model is approximately 40 percent of the afternoon peak hour trip ITE estimate, and 25 percent of the Saturday peak hour ITE estimate, it is reasonable to conclude that the anticipated increase in delay will be between five and eight seconds per vehicle.