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TECHNICAL MEMORANDUM

DATE: June 16, 2022

TO: Alex Elvin, Development of Regional Impact (DRI) Coordinator
Town Hall Annex Vineyard Haven, Massachusetts 02568

FROM: Kurt A. Fraser P.E. President Fraser Poly-Engineering Services (FPES) *KAF*
Maaza Mekuria PHD, P.E. PTOE – Senior Transportation Engineer FPES

SUBJECT: Stone Bank restaurant questions

The purpose of this memo is to provide a response to how the traffic study accounts for summer vs off-season traffic. FPES offers the following response:

In order to transform the counts taken in the month of February to the peak season month of July, a two-step procedure is used. A monthly count taken in any month of the year, (such as the month of February) maybe transformed to the Average Annual Daily Traffic (AADT) value through what is known as a monthly factor for that month. For roadways that have no year round (permanent) counting stations, the monthly factors may be obtained from count stations with similar characteristics. Once the value from one month (February) is scaled into the corresponding average value, we then transform the average volume to the peak season (July) value by dividing the average count by the July monthly factor.

A factor for each month of the year is calculated as follows: $\text{Monthly Factor} = \text{AADT}/(\text{Monthly ADT})$. The monthly factors used for the Stone Bank project are from the most recent 2019 results of the annual regional factor groups published by MassDOT (<https://www.mass.gov/lists/massdot-historical-traffic-volume-data> accessed on 6-8-22). The factor group that Martha's Vineyard roadway network belongs to is the Recreational East Group (Rec-East). The published factors for February and July are 1.16 and 0.77 respectively.

The counts taken in February are converted to the AADT equivalent value by multiplying the February raw counts by the Factor from February (given as 1.16). The results are then divided by the July factor (0.77) to arrive at the peak period July volumes.

Best Regards,

Kurt A. Fraser

Kurt A. Fraser P.E.

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