DAVID EVANS
AND ASSOCIATES INC.

MEMORANDUM

DATE: March 7, 2019

TO: Steven Chen, PE
City of Sammamish

FROM: Josh Anderson, PE, PTOE

SUBJECT: STC Phase 1, Trip Gen Memo

PROJECT: COSA 0000-0018
On-Call Concurrency Review

City of Sammamish staff have requested that DEA review and provide comments on the proposed trip generation estimates for the first phase of the Sammamish Town Center (STC) outlined in a memorandum created by Transpo Group, dated November 29, 2018.

After a detailed review, DEA staff want to draw attention to the following assumptions. These assumptions have a large impact on the total trip generation for the proposed Town Center (TC) and while not specifically incorrect, could be adjusted to result in a more conservative trip generation estimate.

- The internal trip reductions rely upon the existing uses within the Town Center north of SE 4th Street and west of 228th Avenue SE. To quantify the impacts to the SE 4th Street corridor, the internal trips between the uses north and south of SE 4th Street should be calculated separately. This would allow the "internal" trips to be assigned to the correct intersections along SE 4th Street in the TIA.
- The Multi-family house assumed ITE land use code (LUC) 221. This code is for multi-family buildings that are between 3 and 10 stories.
    - ITE LUC 221 shows a trip generation rate of 0.36 and 0.44 trips per unit for the AM and PM peak hours, respectively. Sammamish's calibrated travel demand model uses multi-family trip generation rates of 0.44 and 0.62 trips per unit for the AM and PM peak hours, respectively. This difference is likely due to the fact that the majority of the multi-family dwelling are not in the 3 to 10 story range.

The following comments should be addressed and the memorandum re-submitted to properly calculate trip generation:

- Table 3-A and 3-P: Average Land Use Interchange Distances (Feet Walking Distance) should be filled in. I would suggest using GIS to find the centroid of each land use within the STC and using the distance separating the LU's for this table. When these values are left blank the spreadsheet assumes they are all within a reasonable walking distance. The site plan that was submitted with the application shows that a walking trip could be as much as 1,900 feet.
- With regard to the Diverted Link Trips: the ITE Trip Generation Handbooks states:

    Diverted trips are often difficult to identify. Consequently, diverted trips should be estimated in a traffic impact study only if:
    - *Reliable data reporting the percentage distribution of the three types of trips (primary, pass-by, and diverted trips) are available for the lane use(s) being considered, and*
    - *The travel routes for diverted trips can be clearly established.*

If these conditions cannot be met, the analyst should treat all non-pass-by trips as primary trips.

The applicant has not identified the route(s) from which the diverted-trips would divert. The applicant has proposed a diverted-link trip reduction of approximately 228 PM peak hour trips.

I also have the following questions regarding the methodology:

- Please explain the reasoning for using different vehicle mode share rates. When converting from person trips in vehicles to person trips, an ITE Vehicle Mode Share was used. When converting from external person trips to external person trips in vehicles, a local Vehicle Mode Share was used. By using different rates, the applicant has reduced the trip generation by up to 18.5 percent for outbound residential trips.
- Please explain what the "Proportion In" and "Proportion Out" are showing under the "Internal Person Trips" columns.

MOVING FORWARD

The applicant's uses span four different TAZ's in the City's travel demand model. To accurately model the proposed development, the uses will need to be distributed between the zones in the City's model (with the help of the applicant). We will also need to understand where the internal, pass-by, and diverted-link trips will occur. We can't simply exclude the internal, pass-by, and diverted-link or we will underestimate the trips in the demand model.

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