HEXAGON TRANSPORTATION CONSULTANTS, INC.

March 17, 2021

Mr. Alex Ameri
Public Works & Utilities Director
City of Hayward
777 B Street
Hayward, CA 94541

Re: Trip Generation for Proposed Amazon Warehouse at 2791 W. Winton Avenue

Dear Mr. Ameri:

Hexagon Transportation Consultants, Inc. completed a transportation study for the proposed Amazon warehouse/fulfillment center at 2791 W. Winton Avenue. We understand that Amazon is questioning the trip generation estimates included in the study. Amazon has submitted a study by NV5 dated February 2021 in support of their claim that our study has overestimated the project trip generation. This letter provides our response.

Estimating trip generation is an exercise in predicting the future, so we can never be certain what will happen. Our best estimate is based on counting similar facilities that have already been built and using those counts to predict the future. Our typical source for past counts is the ITE *Trip Generation Manual*, which is the industry standard and was used for our transportation study. We used the land use category of High-Cube Fulfillment Center Warehouse (Land Use 155) because that is the category that best represents what Amazon is proposing. The daily trip rate is 8.18 trips per 1,000 gross square feet of building area. We acknowledge that the ITE rate is based on only one study.

The NV5 study includes count data from 4 Amazon fulfillment centers that are stated to be similar to what is being proposed in Hayward. According to the NV5 counts, the daily trip rates ranged from 1.88 to 12.05 trips per 1,000 s.f. of gross floor area. That is quite a large range of variability. In an attempt to decrease the variability, NV5 introduced the concept of operational area. This is the building area excluding vehicle parking and loading areas. The trip generation rates at the 4 counted sites ranged from 4.01 to 14.9 daily trips per 1,000 s.f. of operational area. While the range was somewhat narrowed by looking at operational area, the range is still quite wide. Also, operational area has the disadvantage of being difficult or impossible for a reviewing agency to independently identify or control.

The daily trip generation rate of 8.18 trips per 1,000 s.f. used in our transportation study is within the range that was found in the NV5 study and is consistent with the ITE manual. Therefore, it can be considered a reasonable estimate. This ratio should be applied to the gross floor area of the building, which is 507,500 square feet.

Thank you for the opportunity to provide this review.

Sincerely,
HEXAGON TRANSPORTATION CONSULTANTS, INC.

Gary K. Black, AICP
President