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October 28, 2020

Mr. Sukhpreet (Monty) Dhaliwal
Project Engineer
City of Snohomish Engineering Department
P.O. Box 1589
116 Union Avenue
Snohomish, WA 98291

**Re: Trip Generation and Traffic Impact Fee Mitigation Review for the Proposed Centennial Family Dentistry Development in Snohomish, WA
NTC Project No. 20T04**

Dear Mr. Dhaliwal:

This letter outlines our trip generation and traffic mitigation fee analysis for the proposed Centennial Family Dentistry development in the City of Snohomish, Washington. The proposed project includes the development of a new medical-dental office building with 2,628 square feet of gross floor area. The project site is currently a vacant parcel located at 133 Maple Avenue, Snohomish, WA, 98290.

The project site is currently occupied by two separate buildings including a single family home and a 1,640 square foot dance studio that will be demolished as a part of this project. This trip generation analysis was prepared to document the projected site traffic generated by the proposed medical-dental office building to meet City of Snohomish Municipal Code requirements.

Project Trip Generation Summary

Trip generation estimates for the proposed Centennial Family Dentistry development were derived from the use of the average daily and peak hour trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition, 2017, under Land Use Code 720 (Medical-Dental Office Building). Under the ITE trip rates, the proposed

new 2,628 square foot dental office is estimated to generate a total of 91 average daily trips (ADT) with 7 a.m. peak and 9 p.m. peak hour trips.

Trip generation estimates were also calculated for the two existing buildings that will be demolished as a part of this project. However, trip credits for the single family home and dance studio cannot be applied towards the final traffic mitigation fee calculation since both land uses have been vacant for over 12 months.

Table 1 summarizes the existing and proposed development trip generation values and the net new total estimated under the ITE Manual methodology. The supporting detailed ITE trip generation calculations and summary for the daily and peak hours is shown in the appendices of this memo.

Table 1
ITE Manual Trip Generation Summary

Trip Description	ADT	AM Peak Hour	PM Peak Hour
<i>Gross Trips</i>			
Centennial Family Dentistry (2,628 SF Proposed)	91	7	9
Net New Trips	91	7	9

Traffic Impact Fee Mitigation Requirements

The City of Snohomish's current traffic impact fee rate is \$1,603 per new PM peak hour trip. A total of 9 new PM peak hour trips will be generated by the proposed development at \$1,603 per PM peak hour trip. Therefore, the Centennial Family Dentistry development would be required to contribute a total of \$14,427 (\$1,603 x 9 p.m. peak trips) towards the City of Snohomish's transportation improvement projects as their proportionate share mitigation.

Findings and Recommendation

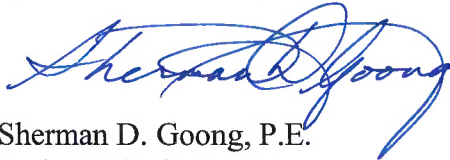
Based on the trip generation analyses documented above, the proposed 2,628 square foot medical-dental office building development generates minimal new trips and would not require preparation of a full traffic impact analysis study in accordance with City of Snohomish Municipal Code requirements and guidelines. The proposed development is potentially required to contribute a total traffic impact fee of \$14,427 towards City transportation improvements to mitigate traffic impacts created by the proposed development.

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We trust that the trip generation analysis conducted above for the proposed Centennial Family Dentistry development project provides you with the information necessary for the City to complete the transportation review this development. This study was prepared by a licensed Professional Engineer in the State of Washington and a Member of the Institute of Transportation Engineers. Please contact us if you have any questions or concerns regarding the information documented herein.

Sincerely,

NORTSHORE TRAFFIC CONSULTANTS



Sherman D. Goong, P.E.
Project Principal

Attachments: Trip Generation Summary
ITE Trip Generation Manual Data References

Cc: Mr. Franklin Ng, Architectural Werks, Inc., Applicant Representative

Land Use: 720

Medical-Dental Office Building

Description

A medical-dental office building is a facility that provides diagnoses and outpatient care on a routine basis but is unable to provide prolonged in-house medical and surgical care. One or more private physicians or dentists generally operate this type of facility. Clinic (Land Use 630) is a related use.

Additional Data

Time-of-day distribution data for this land use for a weekday, Saturday, and Sunday are presented in Appendix A. For the 19 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 9:30 and 10:30 a.m. and 2:15 and 3:15 p.m., respectively.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Connecticut, Kentucky, Maryland, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, South Dakota, Texas, Virginia, Washington, and Wisconsin.

Source Numbers

104, 109, 120, 157, 184, 209, 211, 253, 287, 294, 295, 304, 357, 384, 404, 407, 423, 444, 509, 601, 715, 867, 879, 901, 902, 908, 959, 972

Medical-Dental Office Building (720)

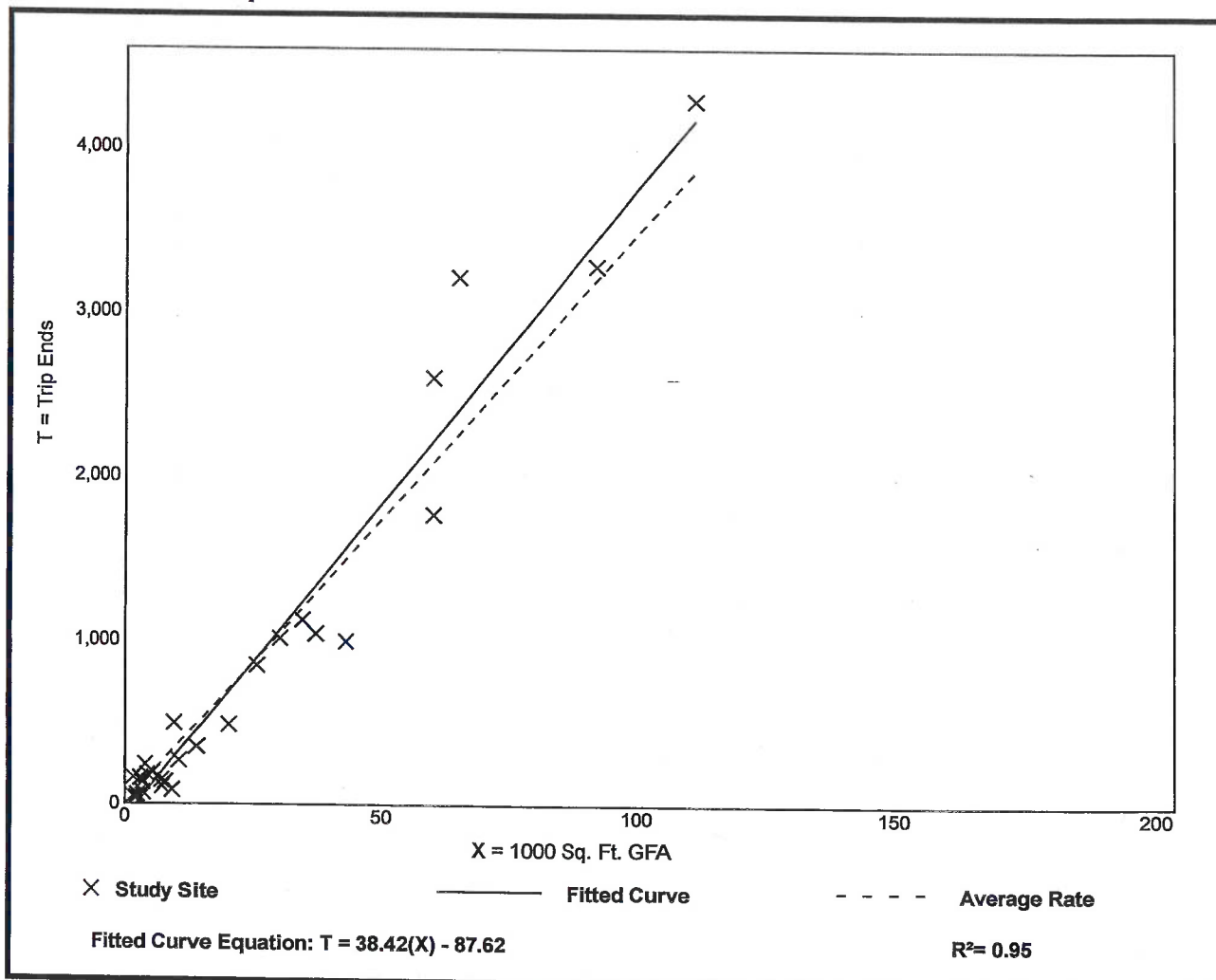
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 28
1000 Sq. Ft. GFA: 24
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
34.80	9.14 - 100.75	9.79

Data Plot and Equation



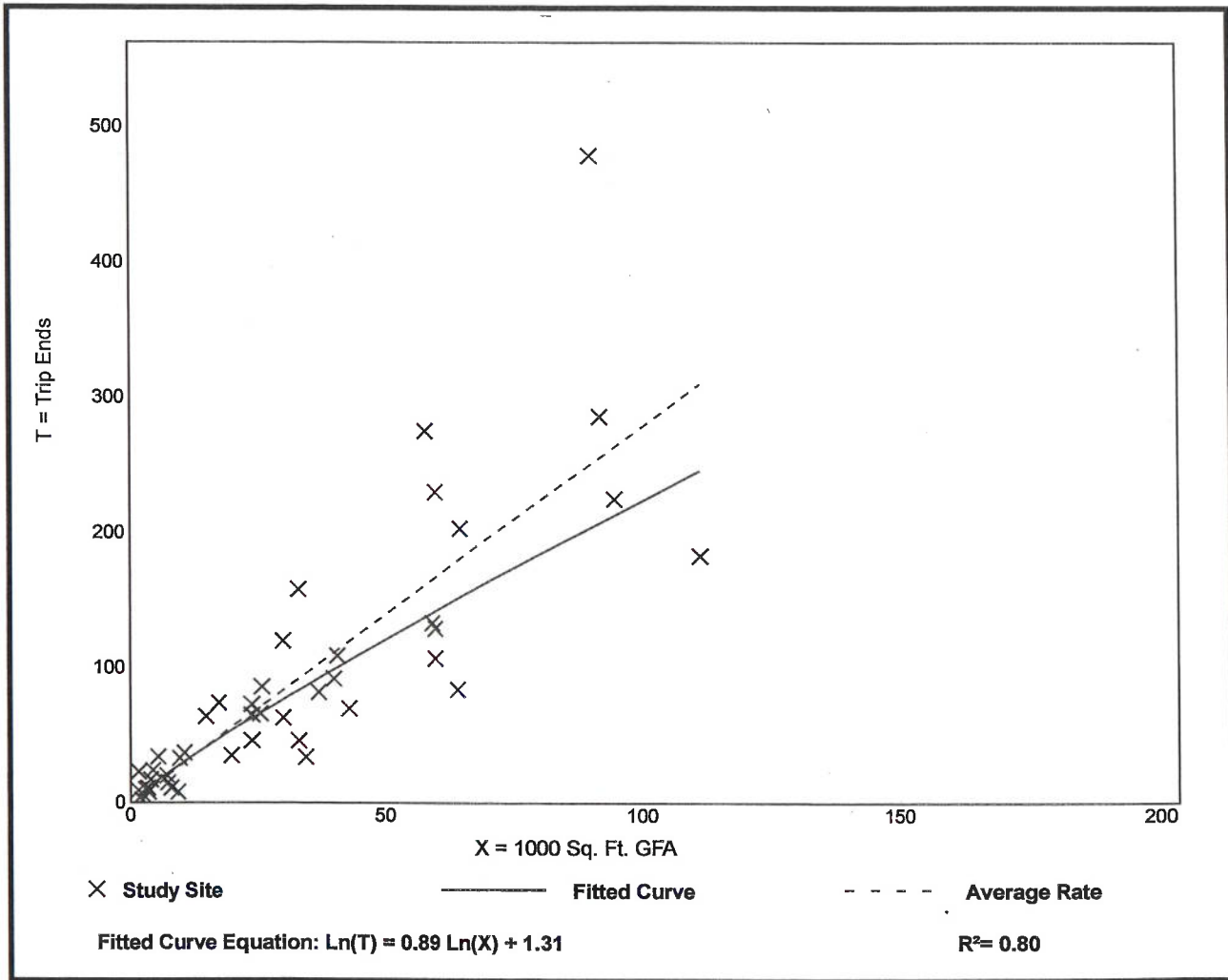
Medical-Dental Office Building (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 44
 1000 Sq. Ft. GFA: 32
 Directional Distribution: 78% entering, 22% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.78	0.85 - 14.30	1.28

Data Plot and Equation



Medical-Dental Office Building (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 65
 1000 Sq. Ft. GFA: 28
 Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.46	0.25 - 8.86	1.58

Data Plot and Equation

