



September 18, 2018

Whipple Consulting Engineers, Inc.

W.O. No. 18-2178

City of Spokane
Department of Engineering & Roads
808 W. Spokane Falls Blvd.
Spokane, WA 99201

Attn: Inga Note, P.E.

Re: **Eagle Ridge West**
6820 S. Cedar Road
Trip Generation & Distribution Letter

Dear Ms. Note,

This Trip Generation and Distribution Letter (TGDL) is for a proposed 93-Lot Single-Family Residential development located on the west side of the intersection of Cedar Road & Eagle Ridge Boulevard. This letter will establish the anticipated trip generation and distribution for the development as shown on Figure 2, Preliminary Site Plan. This report will follow the standards for traffic letters as required by the City of Spokane.

PROJECT DESCRIPTION

The proposed site, as shown on Figure 2 Preliminary Site Plan, proposes the development of 21.36 acres +/- into 93 Single-Family Residential lots. The site has an existing house and outbuildings that are to be removed and is mostly undeveloped with other residential developments surrounding it. As shown on the preliminary site plan, the development is proposed to extend Eagle Ridge Boulevard into the project site and will provide access to the development. The development has one access with future connections to Oak Road (southwest) and Maple Road (north & south).

VICINITY / SITE PLAN

The site is currently zoned as Residential Single-Family. The subject property is located on a portion of the NE ¼ of Section 12, Township 24 N, Range 42 E, W.M., within the City of Spokane, Washington. The parcel number for the subject property is 24121.0001. The surrounding area to the north, west, east and south is also zoned Residential Single-Family.

TRIP GENERATION AND DISTRIBUTION

Trip Types

The proposed use is Single-Family Residential; ITE has developed data regarding various trip types that all developments experience. These are found in several places, however, for this analysis the *Trip Generation Manual 9th Edition* as well as the *Trip Generation Handbook* were used to develop the criteria for this analysis.

Generally, all existing and proposed developments will be made up of one or more of the following four trip types: new (destination) trips, pass-by trips, diverted trips, and shared (internal trips). In order to better understand the trip types available for land access a description of each specific trip type follows.

New (Destination) Trips - These types of trips occur only to access a specific land use such as a new retail development or a new residential subdivision. These types of trips will travel to and from the new site and a single other destination such as home or work. This is the only trip type that will result in a net increase in the total amount of traffic within the study area. The reason primarily is that these trips represent planned trips to a specific destination that never took trips to that part of the City prior to the development being constructed and occupied. This project will develop new trips.

Pass-by Trips - These trips represent vehicles which currently use adjacent roadways providing primary access to new land uses or projects and are trips of convenience. These trips, however, have an ultimate destination other than the project in question. They should be viewed as customers who stop in on their way home from work. An example would be on payday, where an individual generally drives by their bank every day without stopping, except on payday. On that day, this driver would drive into the bank, perform the prerequisite banking and then continue on home. In this example, the trip started from work with a destination of home, however on the way, the driver stopped at the grocery store/latte stand and/or bank directly adjacent to their path. Pass-by trips are most always associated with commercial/retail types of development along major roadways. Therefore, for this project pass-by trips will not be considered.

Diverted (Linked) Trips - These trips occur when a vehicle takes a different route than normal to access a specific facility. Diverted trips are similar to pass-by trips, but diverted trips occur from roadways which do not provide direct access to the site. Instead, one or more streets must be utilized to get to and from the site. For this project, no diverted trips are anticipated.

Shared Trips - These are trips which occur on the site where a vehicle/consumer will stop at more than one place on the site. For example, someone destined for a certain shop at a commercial site may stop at a bank just before or after they visit the shop that they went to the site to visit. This trip type reduces the number of new trips generated on the public road system and is most commonly used for commercial developments. Since the project has only one land use and no cross-access driveways with other land uses, no shared trips were considered.

Trip Generation Characteristics for the Proposed Project

As noted earlier, trip generation rates for the AM and PM peak hours are determined by the use of the *Trip Generation Manual, 9th Edition* published by the Institute of Transportation Engineers (ITE). The purpose of the *Trip Generation Manual* is to compile and quantify empirical data into trip generation rates for specific land uses within the US, UK and Canada.

The project site currently has a single-family residence, that is currently generating trips on the transportation system. Therefore, for this analysis, the trip generation will reflect this existing land use for this analysis. The trip generation will reflect this existing land use by calculating 92 lots as that will be the number of new single-family residences that will generate new trips on the transportation system.

For the proposed 92-Single-Family Residential lots development, Land Use Code (LUC) #210 - Single Family Detached Housing was used to establish the number of trips generated by the proposed land use. The trip generation rates and the anticipated number of AM & PM peak hour trips for the proposed project are shown on Table 1.

Table 1-Trip Generation Rates for LUC # 210 Single Family Detached Housing

Dwelling Lots	AM Peak Hour Trips			PM Peak Hour Trips		
	Vol. @ 0.75 Trips/ Unit	Directional Distribution		Vol. @ 1.00 Trips/ Unit	Directional Distribution	
		25% In	75% Out		63% In	37% Out
92	69	17	52	92	58	34
Average Daily Trip Ends (ADT)						
Lots	Rate	ADT				
92	9.52	876				

As shown in Table 1, the land use of the development is anticipated to generate 69 trips in the AM peak hour with 17 trips entering the site and 52 trips exiting the site. In the PM peak hour, the land use of the development is anticipated to generate 92 trips with 58 trips entering the site and 34 trips exiting the site. The land use of the development is anticipated to generate 876 average daily trips to/from the project.

TRIP DISTRIBUTION

As shown on the site plan, the site will be accessed by Eagle Ridge Boulevard (please see Figure 2, Site Plan). It is anticipated that the residents of the site will generally use the following roadways:

Cedar Road is a north-south, two-way, 2-lane collector road. Cedar Road extends north from Gibbs Road within the project area and goes through Taylor Road, White Road, Eagle Ridge Boulevard before continuing north and then merging with Cheney-Spokane Road. Cedar Road primarily serves residential landuses. The speed limit on Cedar Road is 30 MPH.

Eagle Ridge Boulevard is an east-west, two-way, 2-lane collector road used to access the existing homes on Eagle Ridge Boulevard. Eagle Ridge Boulevard extends west from Meadow Lane Road which connects to Interstate 195. Eagle Ridge Boulevard primarily serves residential. The speed limit on Eagle Ridge Boulevard is 30 MPH.

Meadow Lane Road is generally a north-south, two-way, 2-lane Collector and local access road that crosses Highway 195 as a collector and while climbing the hillside intersects with Eagle Ridge Boulevard. Meadow Lane Road continues as a local access road and proceeds south while climbing the hill and serving residential land uses. The Speed limit of Meadow Lane Road is 30 MPH and 25 MPH respectfully.

Considering many factors such as the surrounding transportation facilities, typical commuting patterns, existing development in the area, and Average Daily Traffic counts, traffic for the proposed development is anticipated as follows: 70% of trips are anticipated to travel to/from the north via Cedar Road. 5% of trips are anticipated to travel to/from the south via Cedar Road. 25% of trips are anticipated to travel to/from the east via Eagle Ridge Boulevard. Please see Figures 3 to see a graphical representation of this distribution.

CONCLUSIONS AND RECOMMENDATIONS

It is anticipated that this project will generate 69 AM peak hour trips and 92 PM peak hour trips. Based upon the number of anticipated trips, and the distribution of those trips on city collectors, we believe that while the proposed project will generate trips on the transportation system, that those trips will have a minimal impact on the transportation system. Therefore, we recommend that the project be allowed to move forward in the development process.

Should you have any questions related to this document please do not hesitate to call at (509) 893-2617.

Sincerely,



Todd R. Whipple, P.E.

TRW/stt

encl. Appendix (Vicinity Map, Preliminary Site Plan, Trip Dist)

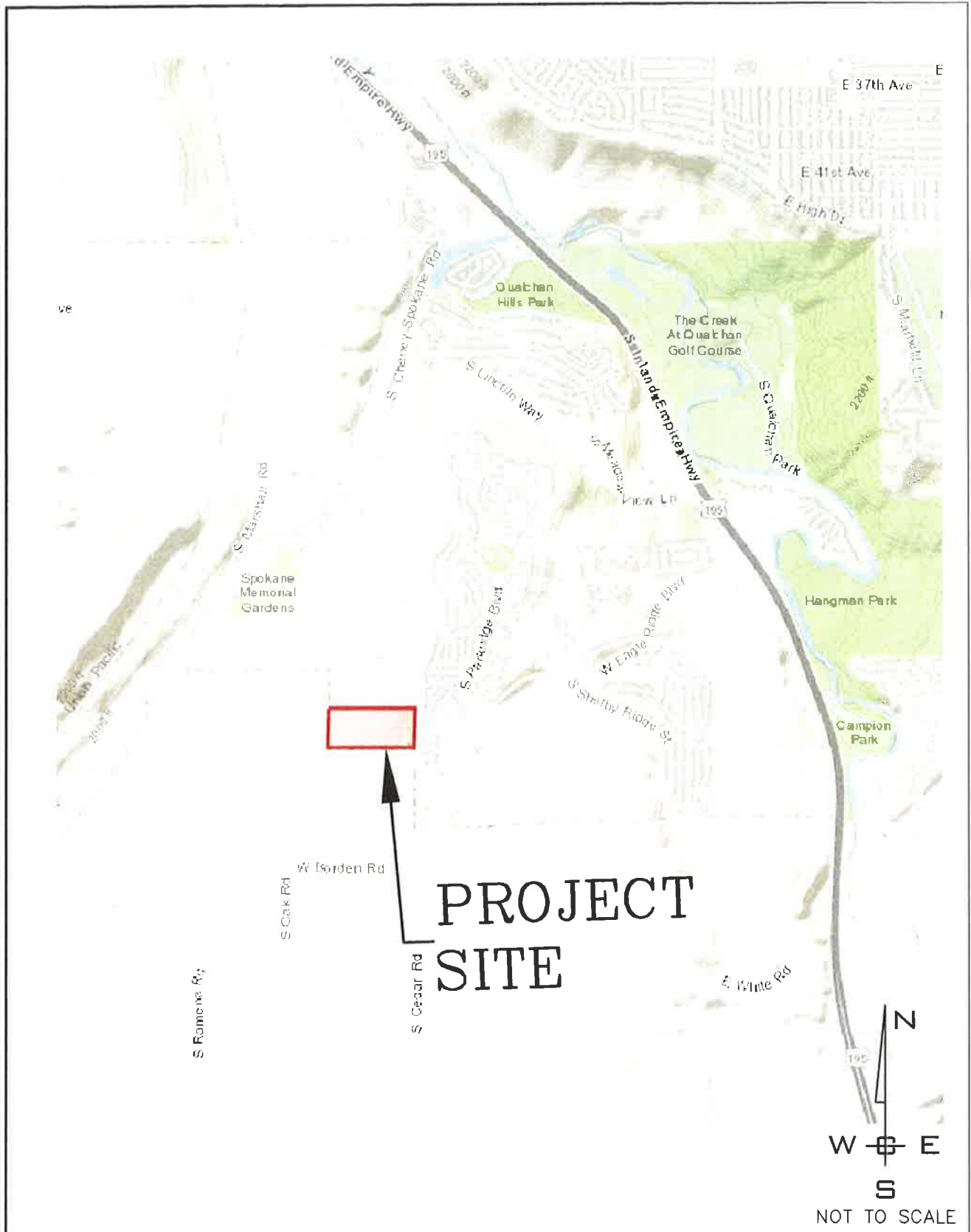
cc: Sponsor
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APPENDIX

1. Vicinity Map

2. Preliminary Site Plan

3. Distribution Map



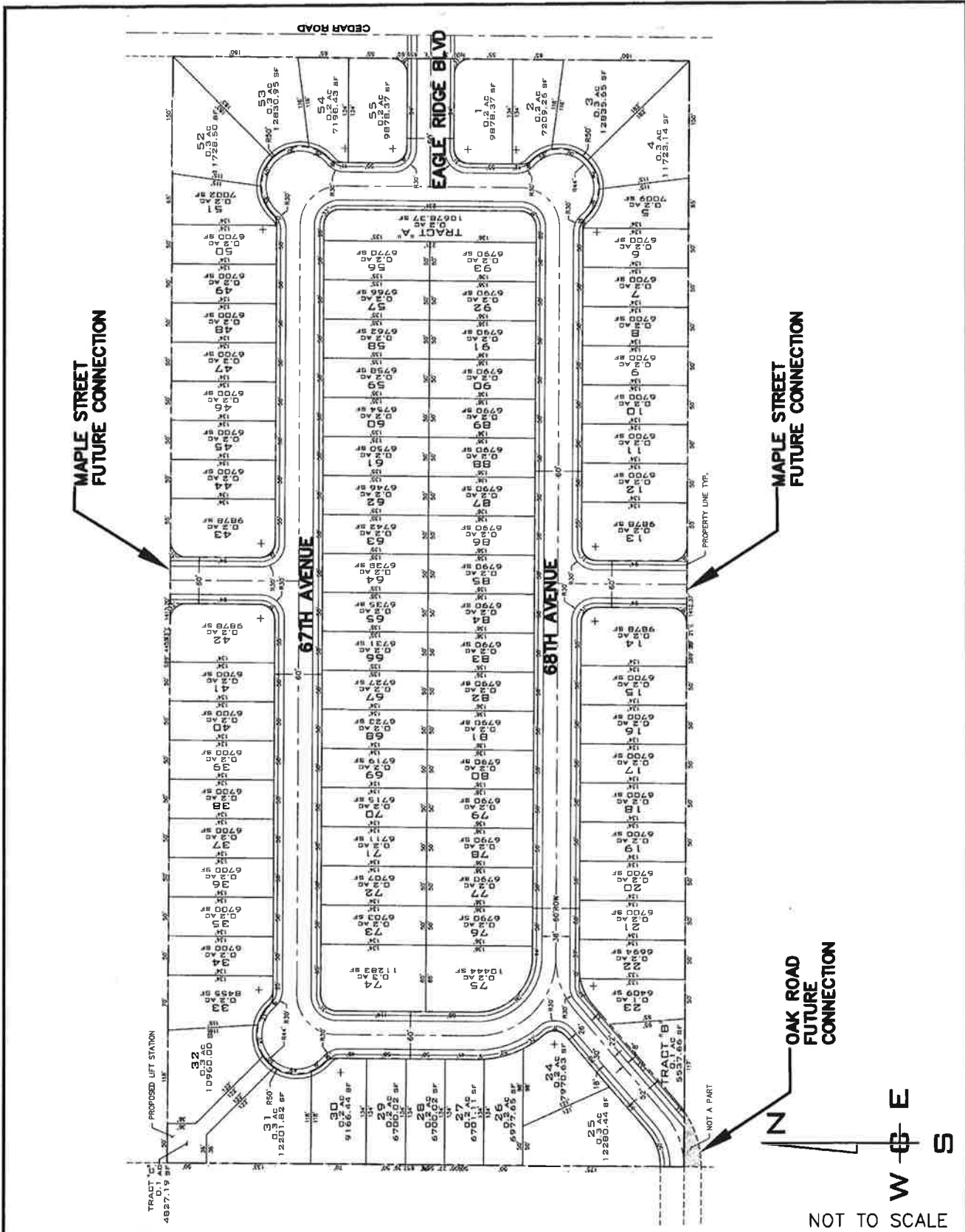
PROJ #: 18-2178
 DATE: 09/05/18
 DRAWN: STT
 APPROVED: TRW

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FIGURE 1

VICINITY MAP



PROJ #: 18-217B
 DATE: 09/05/18
 DRAWN: STT
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FIGURE 2

PRELIMINARY SITE PLAN

