

August 10th , 2022 W.O. No. 2021-3040 Whipple Consulting Engineers, Incarcel No. 34032.0432, 34032.0401, 34032.0607

City of Spokane 808 W. Spokane Falls Blvd Spokane, WA 99201-3343

Attn: Inga Note

Re: Moran Residential Community, Residential Development 55th Avenue & Freya Street Trip Generation & Distribution Letter

Dear Inga,

This Trip Generation and Distribution Letter (TGDL) is for a proposed Single-Family Residential development located at the NW corner of 55th Avenue & Freya Street. This letter will establish the anticipated trip generation and distribution for the proposed development as shown on Figure 2, Preliminary Site Plan. This report will follow the standards for traffic generation and distribution letters as required by the City of Spokane and the Institute of Transportation Engineers.

PROJECT DESCRIPTION

The project proposes to develop 9.76 acres +/- of three (3) parcels located on the northwest corner of 55th Avenue & Freya Street, into a 96-unit attached residential subdivision with two (2) east/west public roads and one (1) north/south public road, as well as various alley ways within the site. The property is currently undeveloped and covered with pine trees, field grasses and weeds. The project site will be accessed via Freya Street, 55th Ave., and Palouse Highway. The approximate build out year is 2024. Please see Figure 2, Preliminary Site Plan.

VICINITY / SITE PLAN

The subject properties are located on a portion of the NW ¼ of Section 3, T24N R43E W.M., within the City of Spokane, Washington. The parcel numbers for the subject properties are 34032.0432, 34032.0401, & 34032.0607. The surrounding area consists of commercial land uses to the east and the south, a storage facility to the east, multifamily residential to the west, and single family residential to the north.

21 South Pines Rd. • Spokane Valley, WA 99206 PO Box 1566 • Veradale, WA 99037 Phone 509-893-2617 • Fax 509-926-0227 • WhippleCE.com • Info@WhippleCE.com Civil, Structural, Traffic, Survey, Landscape Architecture and Entitlements Moran Residential Community Trip Generation & Distribution Letter August 23, 2022 Page 2 of 8

TRIP GENERATION AND DISTRIBUTION

Trip Types

The existing and proposed land use is 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 11th 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 <u>will</u> 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 <u>adjacent</u> 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 <u>will not</u> 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, <u>no</u> 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. Therefore, <u>no</u> shared trips were considered.

Trip Generation Characteristics

As noted earlier, trip generation rates for the AM and PM peak hours are determined by the use of the *Trip Generation Manual*, 11th 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.

Proposed Land Use

For the proposed 96 Townhome units, Land Use Code (LUC) 215 Single-Family Attached 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 land use are shown on Table 1.

	AM Peak Hour Trips			PM Peak Hour Trips				
Dwelling Units	Vol. @ Fitted Curve Equation	Directional Distribution		Vol. @ Fitted Curve Equation	Directional Distribution			
	/ Unit	25% In	75% Out	/ Unit	62% In	38% Out		
96	52	13	39	59	37	22		
A	verage Daily Trip I	Ends (AD	Fitted Curve Equation					
Units	Fitted Curve Equ	uation	ADT	AM - Ln(T) = 0.92 Ln(x) - 0.26 BM - Ln(T) = 0.88 Ln(x) + 0.06				
96	-		682	ADT - (T) = 7.62(x) + 0.00 ADT - (T) = 7.62(x) - 50.48 T = Trips/units, x = Dwelling Units				

Table 1 - Trip Generation Rates for LUC # 215 – Single-Family Attached Housing

As shown in Table 1, the project is anticipated to generate a total of 52 trips in the AM peak hour with 13 trips entering the site and 39 trips exiting the site. In the PM peak hour, the proposed development is anticipated to generate a total of 59 trips, with 37 trips entering the site and 22 trips exiting the site. The proposed development is anticipated to generate a total of 682 average daily trip ends to/from the site.

TRIP DISTRIBUTION

As shown on the Preliminary Site Plan, the properties will be accessed by 55th Avenue, Freya Street, and Palouse Highway (Please see Figure 2, Site Plan). It is anticipated that the trips of the site will generally use the following roadways:

<u>55th Avenue</u> is an east-west, two-way, 2-lane, urban local access road that extends east from Crestline Street through Regal Street and Freya Street before terminating at Palouse Highway. 55th Avenue serves residential land use. The speed limit within the study area is 25 MPH.

<u>53rd Avenue</u> is an east-west, two-way, 2-lane, urban local access road that extends east from Madelia Street through Crestline Street, Regal Street and Fiske Street before terminating. The project proposes to extend 53rd Avenue east to Ferrall Street. 53rd Avenue serves residential land use. The speed limit within the study area is 25 MPH.

Moran Residential Community Trip Generation & Distribution Letter August 23, 2022 Page 4 of 8

Freva Street is a north-south, two-way, two-lane urban principle/minor arterial and urban major collector that extends north from 65th Avenue to Trent Avenue. Freya Street is an urban minor arterial from Hartson Avenue to 42nd Avenue and an urban major collector from the Palouse Highway to 65th Avenue. Freya Street generally serves residential and mixed-use commercial land uses. Freya Street is the primary route from the Palouse Highway to 37th Avenue which connects to Thor Street which is a major arterial on and off of the South Hill. The speed limit on Freya Street is 25 MPH and 30 MPH within the City of Spokane.

Palouse Highway is an east-west two-way, two-lane urban principle/minor and rural major arterial that extends east from Regal Street through Freya Street and 57th Avenue before curving south through 65th Avenue, Rural Route 3, Willow Springs Road, and Valley Chapel Road before curving east through Weger Road, Dunn Road, Sands Road, Madison Road, and Darknell Road before terminating at State Route 27. Palouse Highway serves residential, commercial and rural land uses. The speed limit on Palouse Highway within the study area is 35 MPH.

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: 18% of trips are anticipated to travel to/from the north via Freya Street, 40% of trips are anticipated to travel to/from the north via Regal Street, 28% of the trips are anticipated to travel to/from west via 57th Avenue and 14% of the trips are anticipated to travel to/from south via Palouse Highway. Please see Figure 3 and 4 for a graphical representation of this distribution.



Source: Spokane County ADT Counts

Moran Residential Community Trip Generation & Distribution Letter August 23, 2022 Page 5 of 8

Existing Transit System

The nearest bus stops to the project site include the Moran Station Park and Ride located at Palouse Hwy and 57th Avenue and a bus stop on 57th Avenue and Ferrall Street. The Moran Station Park and Ride is 0.3 miles away from the site. The bus stop on 57th and Ferrall Street is 0.2 miles away from the site. Please see the attached bus route map.



Source: Spokane Transit Authority

Existing Pedestrian System

There are missing sidewalks along Palouse Hwy, 53rd Ave., and 55th Ave. near the project site. There are existing sidewalks on Regal St. and no connection to the bus stops. Please see the attached sidewalk map.



Source: City of Spokane Sidewalk Map

Moran Residential Community Trip Generation & Distribution Letter August 23, 2022 Page 6 of 8

Existing Bike System

There is a bicycle lane along 57th Ave. and a shared roadway bicycle route along Palouse Hwy near the project site. Please see the attached bike map.



Source: City of Spokane Existing Bike Map

TRAFFIC IMPACT FEE

A transportation impact fee for the City of Spokane has been noted and considered here. The City of Spokane code has established transportation impact fees under Spokane Municipal Code Title 17 Chapter 17D.075. The proposed project is in the South Service Area and as such is subject to the current Impact Fee Schedule. The impact fee rate is \$507.38. Table 1 calculates the anticipated Impact fee for the proposed project.

Table 2 – Proposed Land Use Impact Fee

Land Use	LUC	Quantity	Unit of Measure	Fee per unit	Fee
Multifamily Low- Income	-	96	Dwelling Unit	\$507.38	\$48,708.48

As shown in Table 2, the proposed project under the current fee schedule is anticipated to generate an impact fee of \$48,708.48.

Moran Residential Community Trip Generation & Distribution Letter August 10, 2022 Page 7 of 8

CONCLUSIONS AND RECOMMENDATIONS

It is anticipated that the proposed development will generate 52 trips in the AM peak hour and 59 trips in the PM peak hour. We believe that the proposed project will not generate more trips than the transportation system can handle. Therefore, we recommend that the project pay the City of Spokane Traffic Impact fee as allowed by the current code at the time of building permit, and that the project should be allowed to move forward without further traffic analysis.

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

Sincerely, WHIPPLE CONSULTING ENGINEERS, INC.



- encl. Appendix (Vicinity Map, Preliminary Site Plan, Trip Distr. %)
- cc: Sponsor File

APPENDIX

- 1.Vicinity Map
- 2.Site Plan
- 3.AM Trip Distribution by Percentage
- 4.PM Trip Distribution by Percentage







