



Whipple Consulting Engineers, Inc.

April 27, 2017
W.O. No. 17-1783

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

Attn: Inga Note, P.E.

**RE: Proposed Restaurant Development (Thai Bamboo)-2203 East 29th Avenue
Trip Generation and Distribution Letter**

Dear Inga:

This Trip Generation and Distribution Letter (TGDL) is for the proposed Thai Bamboo restaurant development. This letter will establish the anticipated trip generation and distribution for the development as shown on Figure 2, Preliminary Site Plan included in the appendices. This report will follow the standards for traffic letters as required by the City of Spokane.

PROJECT DESCRIPTION

The subject property is located on the northwest corner of Lee Street and 29th Avenue within the overall Grapetree commercial development, but is not a part of the Grapetree PUD. This project proposes to develop the existing 39,913-sf lot into a Thai Bamboo Restaurant. The proposed development will be accessed via 29th Avenue or via Lee Street from the two existing driveways which currently provides access to/from the Grapetree and Message Envy developments.

VICINITY / SITE PLAN

The site is currently in the OR-35 Zone which allows restaurant land use with a conditional use permit. The subject property is subject to a short plat, however the parent parcel number for the subject property is 35284.0197, on a portion of the N ½ of Section 28, T25N R43 E W.M., within the City of Spokane, Washington. The site is surrounded by similarly zoned land uses to the north, south and west, with existing residential land uses to the east. See Figure 1-Vicinity Map and Figure 2-Preliminary Site Plan (please see attached).

TRIP GENERATION AND DISTRIBUTION

Trip Types

For the proposed restaurant land use 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 trip types: new (destination) trips, replacement 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. For this project, pass-by trips are not anticipated.

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. This project has only one land use with cross-access driveways for the Grapetree and Message Envy developments. However, to be conservative, no shared trips were considered for this project.

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), unless a previous version is noted. 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 Development

For the proposed 8,326-sf (8.3 ksf) restaurant development, Land Use Code (LUC) 931 Quality Restaurant was used to establish the number of potential trips generated by the land use. The trip generation rates and the anticipated number of PM peak hour driveway trips for the proposed land use are shown in Table 1. It should be noted that the proposed restaurant does not open until after 11 AM, therefore AM peak hour trips were not considered.

Table 1–Trip Generation Rates for LUC #931 – Quality Restaurant

Thousand Square Feet (KSF)	PM Peak Hour Trips		
	Vol. @ 7.49 Trips/KSF	Directional Distribution	
		67% In	33% Out
8.3	63	42	21
Average Daily Trip Ends (ADT)			
KSF	Rate	ADT	
8.3	89.95	747	

As shown on Table 1, the land use of the proposed development is anticipated to generate 63 driveway trips in the PM peak hour, with 42 driveway trips entering the site and 21 driveway trips exiting the site. The land use of the proposed development is anticipated to generate 747 average daily trips to/from the development.

TRIP DISTRIBUTION

As shown on the Preliminary Site Plan in the appendices, the site is proposed to be accessed via 29th Avenue and via Lee Street from the existing single access driveway that serves the Grapetree and Message Envy development.

29th Avenue is an east-west two-way two & four-lane principle arterial that extends east from High Drive past the proposed restaurant development to Glenrose Road. Within the

study area 29th Avenue has four-lanes. The area surrounding 29th Avenue is a mixture of commercial and residential uses. The posted speed limit on 29th Avenue is 30 MPH.

Southeast Boulevard is generally a north-south two-way two-lane minor arterial that extends south from the intersection of 10th Avenue and Hatch Street up the South Hill and through Perry Street, Rockwood Boulevard, and 29th Avenue before sweeping east and subsiding to intersect with Regal Street. Southeast Boulevard generally serves residential uses along the north face of the South Hill, and commercial uses near the intersection of Southeast Boulevard & 29th Avenue. The speed limit on Southeast Boulevard is 30 MPH.

Trip Distribution Characteristics for the Proposed Project

Trip Distribution for this development will follow the regional traffic patterns to/from this area. Sources for determining the anticipated traffic flows to and from the proposed restaurant development were based on average daily traffic in the area, and the surrounding developments. The anticipated project’s trip distribution is as follows: 40% of trips will be going to/from the west on 29th Avenue, and 60% of trips will be going to/from the east on 29th Avenue. Among the 60% going to/from the east on 29th Avenue, 20% of trips are anticipated to go to/from the north on Southeast Boulevard, 10% of trips will go to/from the south on Southeast Boulevard, and 30% of trips will be going to/from the east on 29th Avenue towards Southeast Boulevard.

Traffic Impact Fee

A voluntary impact fee for the City of Spokane is considered here. The City of Spokane code has established transportation impact fees under Spokane Municipal Code Title 17 Chapter 17D.030. The proposed project is adjacent to the South Service area and as such is subject to the current Impact Fee Schedule. Table 2 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
LUC # 931 Quality Restaurant	931	8,326	SF	\$2.78	\$23,146.28
Total	-	-	-	-	\$23,146.28

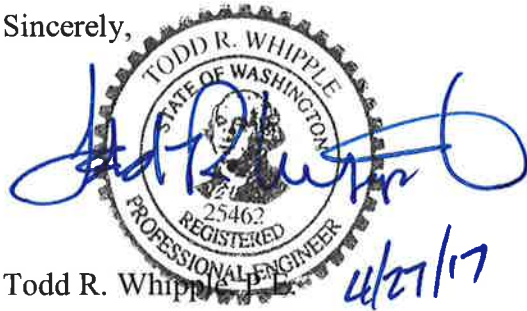
CONCLUSIONS AND RECOMMENDATIONS

It is anticipated that this project will generate 63 PM peak hour trips, with 747 Average Daily Trips to/from the site, and the anticipated impact fee per City of Spokane impact fee schedule is anticipated to be \$23,146.28, paid upon issue of the building permit. It is concluded that the development of the proposed project will generate new trips on the existing transportation system and that those trips while affecting level of service are not anticipated to degrade LOS below concurrency levels. We therefore recommend that the project be allowed to move forward without further traffic analysis.

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

Sincerely,



Todd R. Whipple, P.E.

TRW/ctr

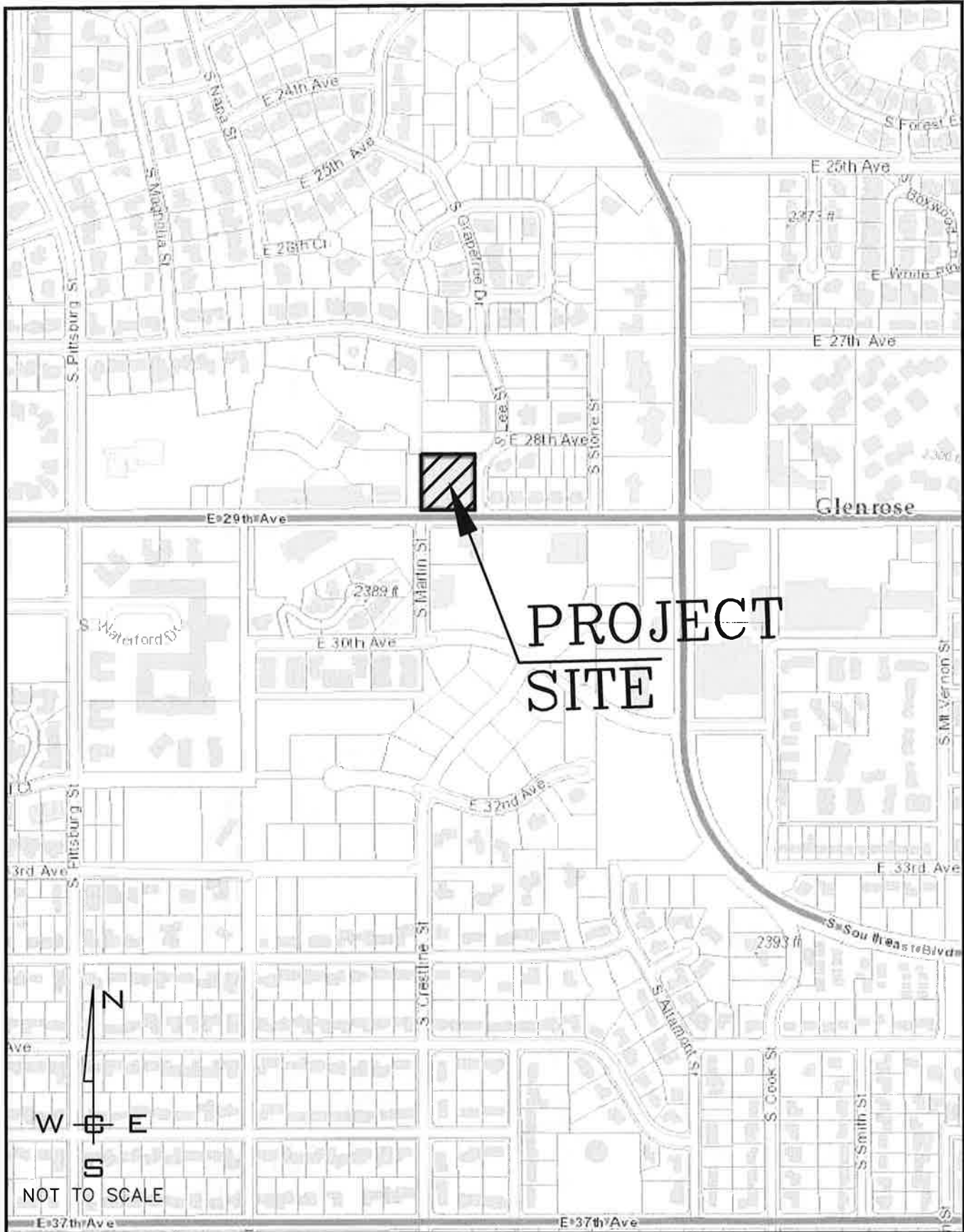
Encl. Appendix (Vicinity Map, Site Plan, Trip Dist %.)
cc: file

APPENDIX

1. Vicinity Map

2. Site Plan

3. Trip Distribution by Percentage



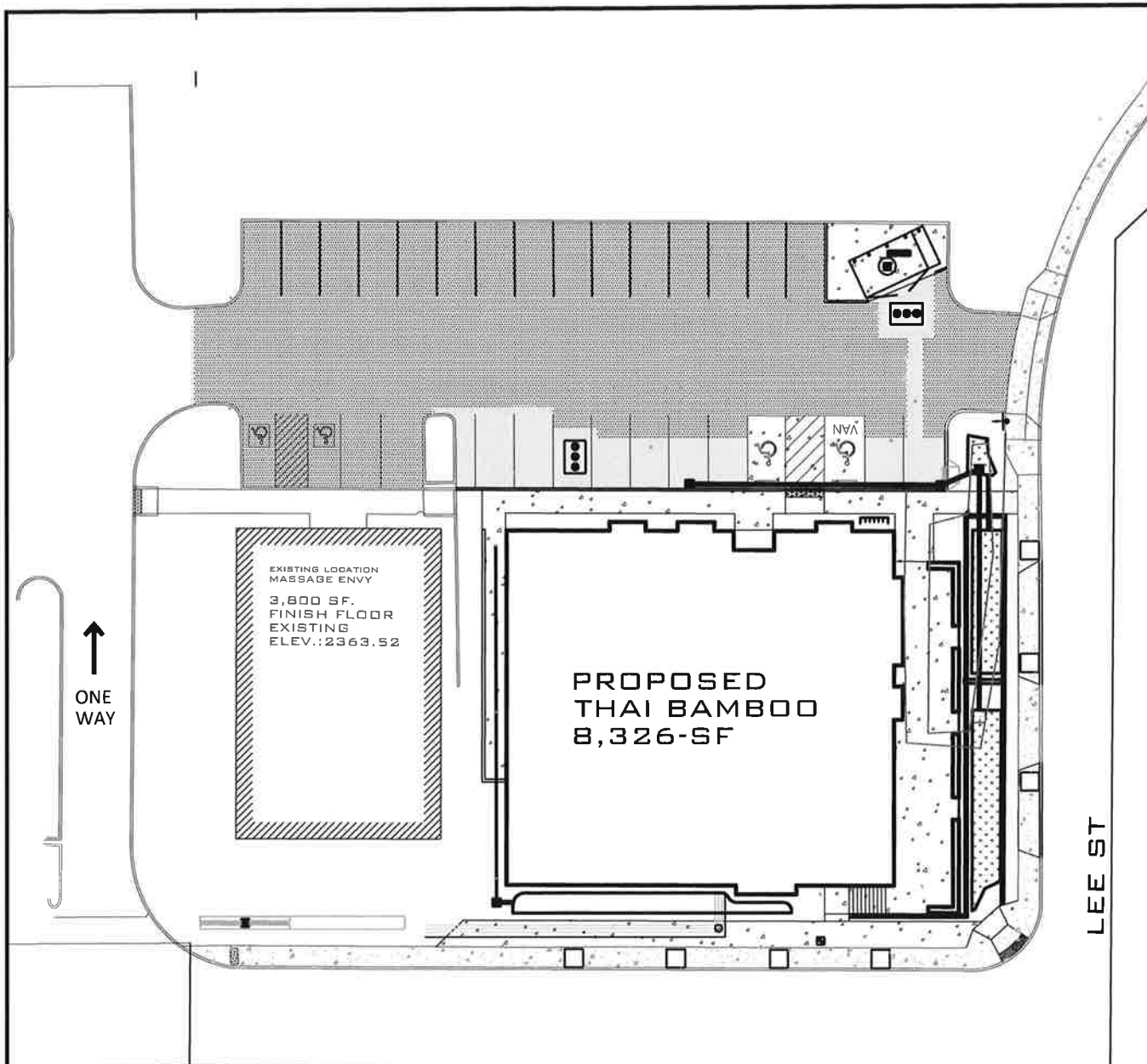
PROJ #: 17-1783
 DATE: 04-21-17
 DRAWN: CTR
 APPROVED: TRW

TRIP GENERATION AND DISTRIBUTION
THAI BAMBOO
29TH AVENUE & LEE STREET
SPOKANE, WASHINGTON


 WHIPPLE CONSULTING ENGINEERS
 CIVIL AND TRANSPORTATION ENGINEERING
 2528 NORTH SULLIVAN ROAD
 SPOKANE VALLEY, WASHINGTON 99216
 PH: 509-893-2617 FAX: 509-926-0227

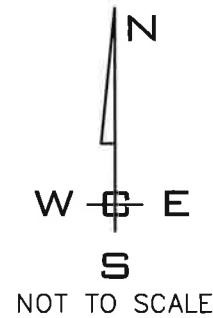
FIGURE 1

VICINITY MAP



29TH AVE

LEE ST



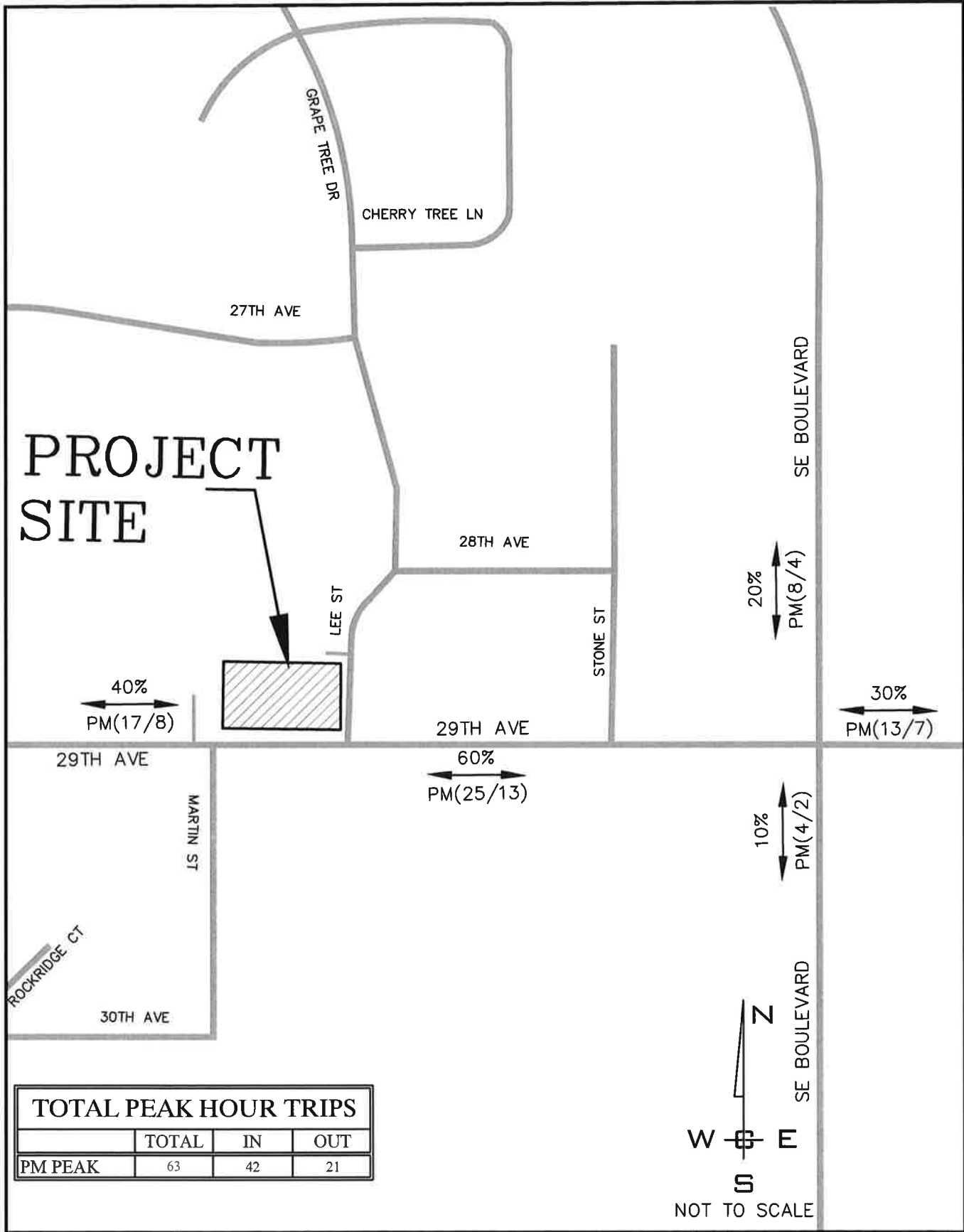
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FIGURE 2

PRELIMINARY SITE PLAN



TOTAL PEAK HOUR TRIPS			
	TOTAL	IN	OUT
PM PEAK	63	42	21

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FIGURE 3

PROJECT TRIP DISTRIBUTION