

# APPENDIX G

## TRIP GENERATION ANALYSIS





EMAIL TRANSMITTED

September 19, 2016

Mr. Daniel Bobadilla  
Public Works Director  
City of Azusa  
809 N. Angeleno Avenue  
Azusa, CA 91702

RE: Gladstone Senior Villas Project (360, 410-416 East Gladstone Street, City of Azusa)  
Trip Generation Analysis

Dear Mr. Bobadilla,

**Background**

Gladstone LLC proposes to develop a 60-unit senior citizen apartment project at 360, 410-416 East Gladstone Street in the City of Azusa (the “Project”). The Project site is bordered by East Gladstone Street to the north, East Orkney Street to the south, one-story apartments to the east, and single-family housing to the west. The Project site location and surrounding area is shown on Figure 1. Based on developer discussions with City staff and in order to determine the level of traffic analysis required for the Project, a trip generation analysis has been performed and is presented in this technical letter.

**Project Description**

The conceptual site plan for the Project is displayed on Figure 2. The proposed development would consist of the construction of a three-story building with 60 senior citizen apartment units, and will include a community room, laundry room, office and other support facilities. Currently,

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the site is occupied by three single-family homes. These existing homes would be removed to accommodate the Project.

Parking for the Project would be provided in a surface parking lot. Each unit will be provided one-half parking space for residents and one-tenth parking space for employees and guests. In total, the Project would provide approximately 36 parking spaces. The 0.60 spaces per unit is consistent with the Institute of Transportation Engineers (ITE) Parking Generation (4<sup>th</sup> Edition, 2010) peak demand rate 0.59 spaces per unit for the Land Use Code (LUC) 252 Senior Adult Housing land-use category, and therefore the ITE trip generation rates described below were selected as appropriate.

Project access/egress would be provided via a single driveway onto East Gladstone Street. This driveway would be located near the northeast corner of the Project site. Additionally, a secondary emergency vehicle access would be provided via East Orkney Street, near the southeast corner of the Project site. Currently, the Project site has two driveways onto East Gladstone Street and one driveway onto East Orkney Street (one for each of the existing homes). These driveways would be closed as part of the Project.

### **Project Trip Generation**

The latest version of the ITE Trip Generation Manual (9th Edition, 2012) was used to develop the traffic characteristics of the Project. The trip generation equations and rates in the ITE manual are nationally recognized and are used as the basis for most traffic studies conducted in the Southern California region. The ITE Trip Generation Manual rates for LUC 210: Single-Family Detached Housing and LUC 252: Senior Adult Housing were used for the existing use and proposed use, respectively. The attached Table 1 presents the ITE Trip Generation Manual rates used to determine the expected weekday daily and peak-hour traffic generation volumes for the Project.

By applying the trip rates provided in Table 1, weekday daily, AM peak-hour, and PM peak-hour trips were calculated for the Project. These trip estimates are also summarized in Table 1. As shown, once completed and occupied, the proposed Project is expected to generate approximately 206 daily trips, with 12 AM peak-hour trips and 15 PM peak-hour trips. The existing uses on the Project site generate approximately 29 daily trips, with 2 AM peak-hour trips and 3 PM peak-hour trips. Therefore, the estimated net trip generation to the surrounding street system for the Project (proposed Project trips minus existing uses trips) are anticipated to be approximately 177 daily trips, with 10 AM peak-hour trips and 12 PM peak-hour trips.

Letter to Mr. Daniel Bobadilla  
September 19, 2016  
Page 3

**Project Traffic Impacts**

Given the low net trip generation estimates for the Project, it is not expected that the Project would have a significant traffic impact on any of the surrounding intersections or roadway segments. Therefore, no further analysis of traffic impacts is recommended.

Please contact me if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "George Rhyner". The signature is fluid and cursive, with the first name "George" being more prominent than the last name "Rhyner".

George Rhyner, PE  
Senior Transportation Engineer  
TE 2143, CE 47763

## **FIGURES**



FIGURE 1

9/14/2016

FN: GLADSTONE/SITE VICINITY

PROJECT SITE LOCATION MAP



Transportation Planning  
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FIGURE 2

9/14/2016

FN: GLADSTONE SITE-PLAN

### CONCEPTUAL PROJECT SITE PLAN

**CA CRAIN** Transportation Planning  
Traffic Engineering  
&  
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## **TABLE**

TABLE 1

**GLADSTONE SENIOR VILLAS PROJECT**  
**360, 410-416 EAST GLADSTONE STREET, AZUSA**  
**WEEKDAY TRIP GENERATION<sup>1</sup>**

Land Use	ITE Code	Intensity <sup>2</sup>	Average Weekday	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
<b>Trip Generation Rates</b>									
Single-Family Detached Housing	210	1 du	9.52	25%	75%	0.75	63%	37%	1.00
Senior Adult Housing - Attached	252	1 du	3.44	34%	66%	0.20	54%	46%	0.25
<b>Trip Generation Summary</b>									
Description	Size	Average Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
<b>PROPOSED USE</b>									
Senior Adult Housing - Attached	60 du	206	4	8	12	8	7	15	
<b>Proposed Project Trips</b>		<b>206</b>	<b>4</b>	<b>8</b>	<b>12</b>	<b>8</b>	<b>7</b>	<b>15</b>	
<b>EXISTING USE</b>									
Single-Family Detached Housing	3 du	29	1	1	2	2	1	3	
<b>Existing Project Trips</b>		<b>29</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>3</b>	
<b>Net Project Trips</b>		<b>177</b>	<b>3</b>	<b>7</b>	<b>10</b>	<b>6</b>	<b>6</b>	<b>12</b>	

**Notes:**

- 1) ITE Trip Generation Manual (9th Edition, 2012) trip generation rates for Land Use Codes 210 (Single-Family Detached Housing) and 252 (Senior Adult Housing - Attached) applied.
- 2) du = Dwelling Units.
- 3) For a conservative estimate, no discount was applied to account for employees, guests, and residents utilizing nearby transit facilities.