

Exhibit K



PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

Mr. Harmanjit Dhaliwal, PE
City of Fresno
2600 Fresno Street, 4th Floor
Fresno, California 93721-3623

November 19, 2019

Subject: Scope of Traffic Impact Study
Proposed Azorro Senior Housing Complex
Northwest of the Intersection of Tulare and Helm Avenues
Fresno, California

Dear Mr. Dhaliwal:

Peters Engineering Group has been retained to perform a traffic impact study for the subject project. The purpose of this letter is to provide the City of Fresno and other affected agencies with an opportunity to comment on the scope of the traffic impact study. The traffic impact study will be prepared in conformance with the *City of Fresno Traffic Impact Study Report Guidelines* updated February 2, 2009 and will be submitted with a completed version of the attached City of Fresno Public Works Department Traffic Study Checklist.

We are requesting that the City provide any comments related to the scope of the study to Peters Engineering Group, including approval of the trip generation calculations and determination of the intersections to be studied.

Project Description

The Project consists of a 112-unit multifamily development on approximately 5.5 acres located northwest of the intersection of Tulare and Helm Avenues. The site plan suggests that the project will be a senior housing complex. Site access is proposed via two driveways connecting to Helm Avenue. The proposed project includes an amendment to the Fresno General Plan. Kings Canyon Middle School is located across Helm Avenue from the proposed project site.

A vicinity map is presented in the attached Figure 1, Site Vicinity Map, and a site plan depicting the existing conditions is attached as Figure 2.

Currently the site is planned for medium low density residential uses (3.5 to 6 dwelling units per acre) and is zoned RS-4. Based on the medium low density land use the site would yield no more than 33 single-family residences.

Trip Generation

Data provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition*, are typically used to estimate the number of trips anticipated to be generated by proposed projects. Table 1 presents trip generation estimates.

Table 1
Project Trip Generation

Land Use	Units	Daily		A.M. Peak Hour				P.M. Peak Hour					
		Rate	Total	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
Multifamily Housing (Low Rise), ITE 220	112	7.32	820	0.46	23:77	12	40	52	0.56	63:37	40	23	63

Reference: *Trip Generation Manual, 10th Edition*, Institute of Transportation Engineers 2017
 Rates are reported in trips per dwelling unit.

The Project includes a proposed GPA. An estimate of the number of trips that could be generated at the site based on the current medium low density land use is presented in Table 2.

Table 2
Trip Generation Estimate – Medium Low Density Residential

Land Use	Units	Daily		A.M. Peak Hour				P.M. Peak Hour					
		Rate	Total	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
Single Family Detached Housing (210)	33	9.44	312	0.74	25:75	6	19	25	0.99	63:37	21	12	33

Reference: *Trip Generation Manual, 10th Edition*, Institute of Transportation Engineers 2017
 Rates are reported in trips per dwelling unit.

Project Trip Distribution and Assignment

The regional distribution of Project trips was estimated based on engineering judgment, available routes, and complementary land uses. The estimated percentage distribution of Project trips is presented in Figure 3, Project Trip Distribution Percentages. The Project traffic volumes presented in Table 1 were assigned to the adjacent road network in accordance with the trip distribution percentages described above. The peak-hour Project traffic volumes are presented in Figure 4, Project Peak-Hour Traffic Volumes.

Study Area

It is anticipated that the traffic impact study would include analysis of the following intersection:

1. Tulare Avenue / Helm Avenue (signalized)

Peters Engineering Group is requesting that the City of Fresno and other affected agencies identify other intersections that are to be included in the study, if any.

Since intersection operations typically govern with respect to the required number of through lanes on roadway, road segment analyses are not proposed.

Study Scenarios

The following time periods will be studied:

- Weekday a.m. peak hour between 7:00 and 9:00 a.m.;
- Weekday p.m. peak hour between 4:00 and 6:00 p.m.

Traffic counts and analyses for afternoon conditions (end of school day) are not proposed.

The peak hours will be analyzed for the following conditions:

- Existing Conditions;
- Existing-Plus-Project Conditions;
- Near-Term With-Project Conditions (includes pending and approved projects)
- Cumulative (Year 2040) No-Project Conditions (assumes site is developed in accordance with the current zoning); and
- Cumulative (Year 2040) Conditions With Project.

Pending and Approved Projects

The analyses for the near-term and long-term conditions consider the effects of traffic expected to be generated by pending and approved projects in the study area. Peters Engineering Group is requesting that the City of Fresno provide information related to pending and approved projects in the vicinity of the study intersections that should be included in the traffic analysis.

Significance Criteria

Level of Service

The Transportation Research Board *Highway Capacity Manual*, 2010, (HCM2010) defines level of service (LOS) as, “A quantitative stratification of a performance measure or measures that represent quality of service, measured on an A-F scale, with LOS A representing the best operating conditions from the traveler’s perspective and LOS F the worst.”

Automobile mode LOS characteristics for both unsignalized and signalized intersections are presented in Tables 3 and 4.

Table 3
Level of Service Characteristics for Unsignalized Intersections

Level of Service	Average Vehicle Delay (seconds)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

Reference: *Highway Capacity Manual*, Transportation Research Board, 2010

Table 4
Level of Service Characteristics for Signalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Volume-to-capacity ratio is low. Progression is exceptionally favorable or the cycle length is very short.	<10
B	Volume-to-capacity ratio is low. Progression is highly favorable or the cycle length is very short.	>10-20
C	Volume-to-capacity ratio is no greater than 1.0. Progression is favorable or cycle length is moderate.	>20-35
D	Volume-to-capacity ratio is high but no greater than 1.0. Progression is ineffective or cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35-55
E	Volume-to-capacity ratio is high but no greater than 1.0. Progression is unfavorable and cycle length is long. Individual cycle failures are frequent.	>55-80
F	Volume-to-capacity ratio is greater than 1.0. Progression is very poor and cycle length is long. Most cycles fail to clear the queue.	>80

Reference: *Highway Capacity Manual*, Transportation Research Board, 2010

City of Fresno Criteria

The proposed Project site and the study intersections are located in TIZ-II. In TIZ-II, a significant traffic impact typically is identified if:

- the proposed Project will decrease the LOS below E at an intersection; or
- the proposed Project will exacerbate an existing deficiency at an intersection already operating below LOS D by increasing the average delay per vehicle at the intersection by 5.0 seconds or more.

County of Fresno Criteria

The document *Guidelines for the Preparation of Traffic Impact Studies Within County of Fresno* dated August 2012 (County Guidelines) identifies LOS A, B, and C as acceptable at County locations and LOS D, E, and F as unacceptable. LOS D is considered acceptable within the sphere of influence (SOI) of the City of Fresno or the City of Clovis. The County Guidelines state:

A project is considered to have a significant impact if its traffic, when added to the traffic of the without-project condition, would cause any of the changes in traffic conditions described below.

1) *On roadway segments:*

- a) *Cause a roadway that is operating at an acceptable LOS to deteriorate to an unacceptable LOS; OR*
- b) *Cause the V/C ratio (on a directional peak hour basis) to increase by more than 0.05 on a roadway that is already operating at an unacceptable LOS. It should be noted that a decrease from an unacceptable LOS to a lesser LOS (e.g. from LOS D to LOS E in*

County areas) is not considered an impact unless the corresponding V/C ratio increase is greater than 0.05.

2) *At signalized intersections:*

- a) *Cause an intersection that is operating at an acceptable LOS to deteriorate to an unacceptable LOS; OR*
- b) *Cause the average delay to increase by more than 5.0 seconds at a signalized intersection that is operating at an unacceptable LOS. It should be noted that a decrease from an unacceptable LOS to a lesser LOS (e.g. from LOS D to LOS E in County areas) is not considered an impact unless the corresponding delay increase is greater than 5.0 seconds.*

3) *At unsignalized intersections, including all-way stop, minor approach stop, and roundabouts:*

- a) *Cause a movement or approach that is operating at an acceptable LOS to deteriorate to an unacceptable LOS; OR*
- b) *Cause the average delay to increase by more than 5.0 seconds on a movement or approach that is operating at an unacceptable LOS. It should be noted that a decrease from an unacceptable LOS to a lesser LOS (e.g. from LOS D to LOS E in County areas) is not considered an impact unless the corresponding delay increase is greater than 5.0 seconds.*

4) *On roadways with traveled way width of less than 18 feet (essentially one-lane roadways assuming a minimum of 8 feet per travel direction for vehicle width and edge-of-traveled-way clearance, plus 2 feet clearance between vehicles traveling in opposite directions.)*

- a) *Cause a roadway that already carries 100 vehicles per day (vpd) or less to carry more than 100 vpd; OR*
- b) *Cause a roadway that already carries more than 100 vpd to carry any additional traffic.*

The County Guidelines also contain the following statement: “Although queuing is not included as a significance criterion, the TIS shall include a queuing analysis when appropriate, particularly (but not limited to) left-turn pockets at signalized intersections. The TIS shall include recommendations to correct excessive queuing, blocking, operational problems, or storage deficiencies related to queuing.”

Caltrans Criteria

The Caltrans *Guide for the Preparation of Traffic Impact Studies* dated December 2002 (Caltrans Guide) states the following: “Caltrans endeavors to maintain a target LOS at the transition between LOS “C” and LOS “D” (see Appendix “C-3”) on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained.”

Therefore, a significant traffic impact typically is identified at State locations if:

- the proposed Project will decrease the LOS below C at an intersection; or
- the proposed Project will exacerbate an existing deficiency at an intersection already operating below LOS C by increasing the average delay per vehicle at the intersection by 5.0 seconds or more.

Deviations from Traffic Study Checklist

We are requesting that analyses using Synchro 9 software be allowed. In addition, we are requesting that collision analyses and traffic signal warrants analyses be excluded from the required scope of work.

Closing

Peters Engineering Group is requesting written comments and/or confirmation of the content of this letter. Specifically, we are requesting discussion and confirmation of the following items discussed above from all affected agencies before continuing with the analyses:

- Trip generation assumptions and calculations
- Project trip distribution (no select zone analysis proposed)
- Study area intersections to be counted and analyzed
- The time periods requiring intersection turning movement counts
- The study scenarios
- Significance criteria
- Pending and approved projects
- 24-hour counts for traffic signal warrants not proposed
- Collision analyses not proposed.

Thank you for the opportunity to work with you on this project. Please feel free to contact our office or email me at jrowland@peters-engineering.com if you have any questions.

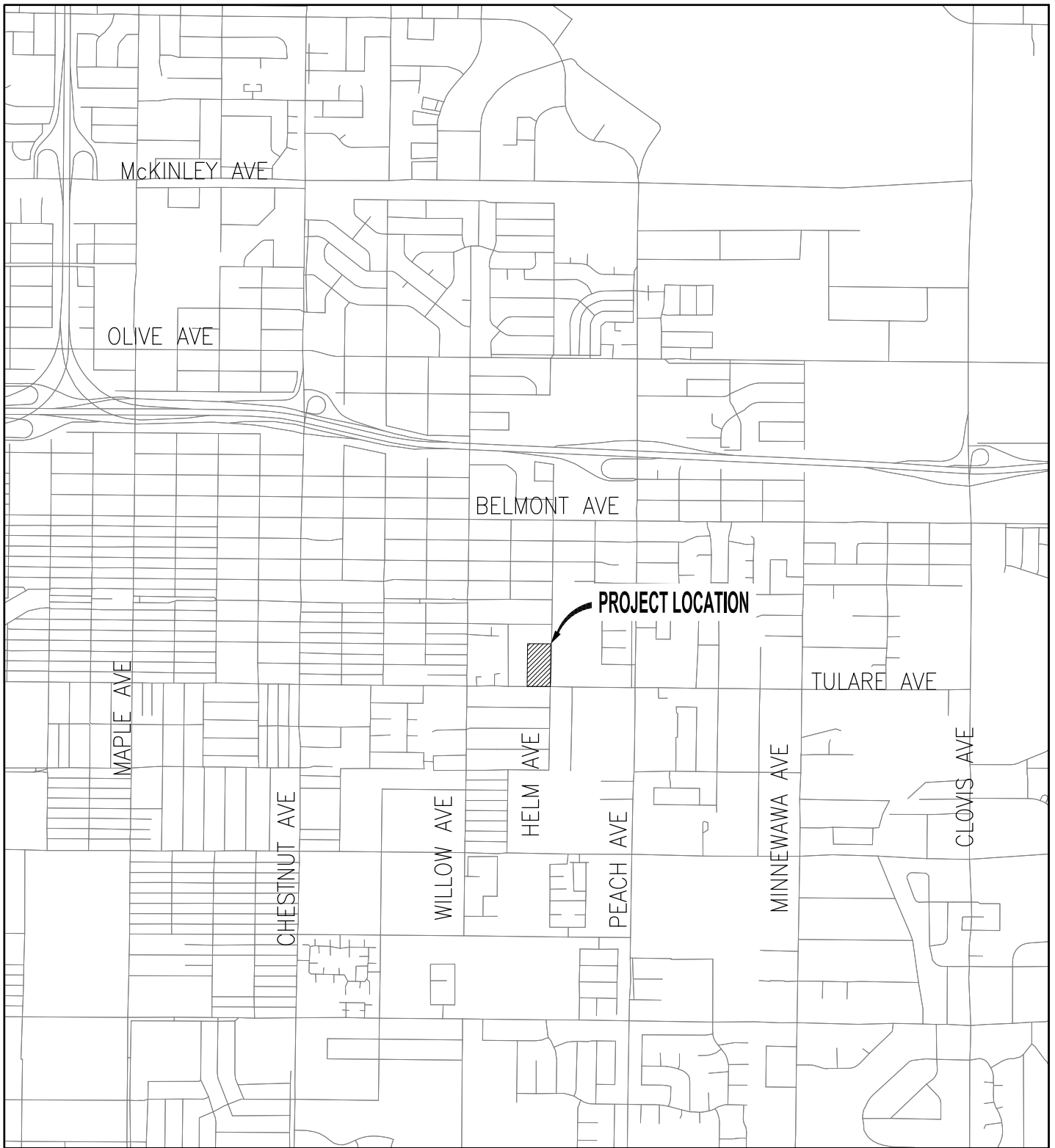
PETERS ENGINEERING GROUP



John Rowland, PE, TE

Attachments: Figures 1 through 4
City of Fresno Public Works Department Traffic Study Checklist

cc: Ms. Jill Gormley, City of Fresno
Mr. Brian Spaunhurst, County of Fresno
Mr. David Padilla, Caltrans



Proposed Azorro Senior Housing Complex
 Fresno, California

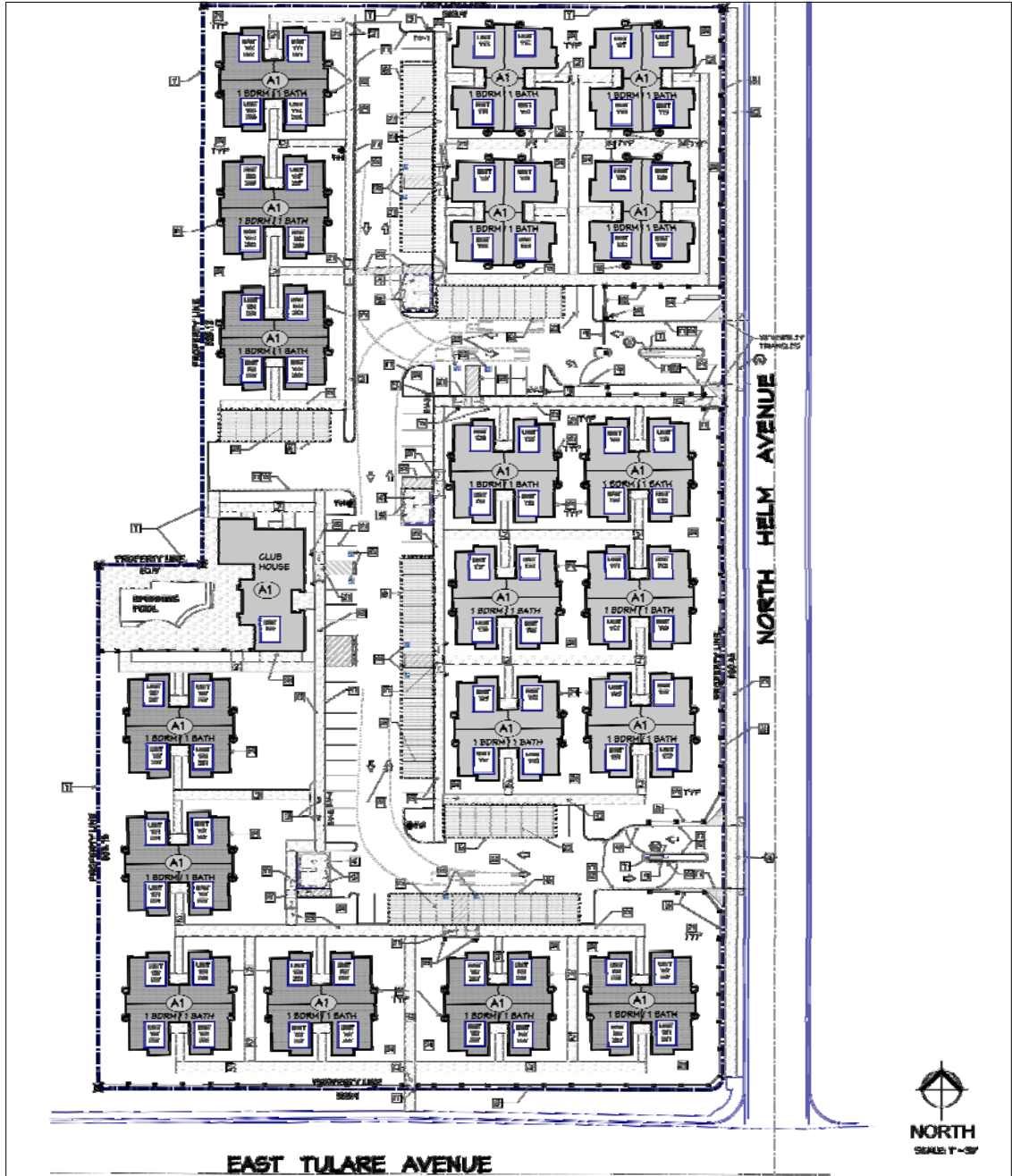
LEGEND

 PROJECT SITE

VICINITY MAP

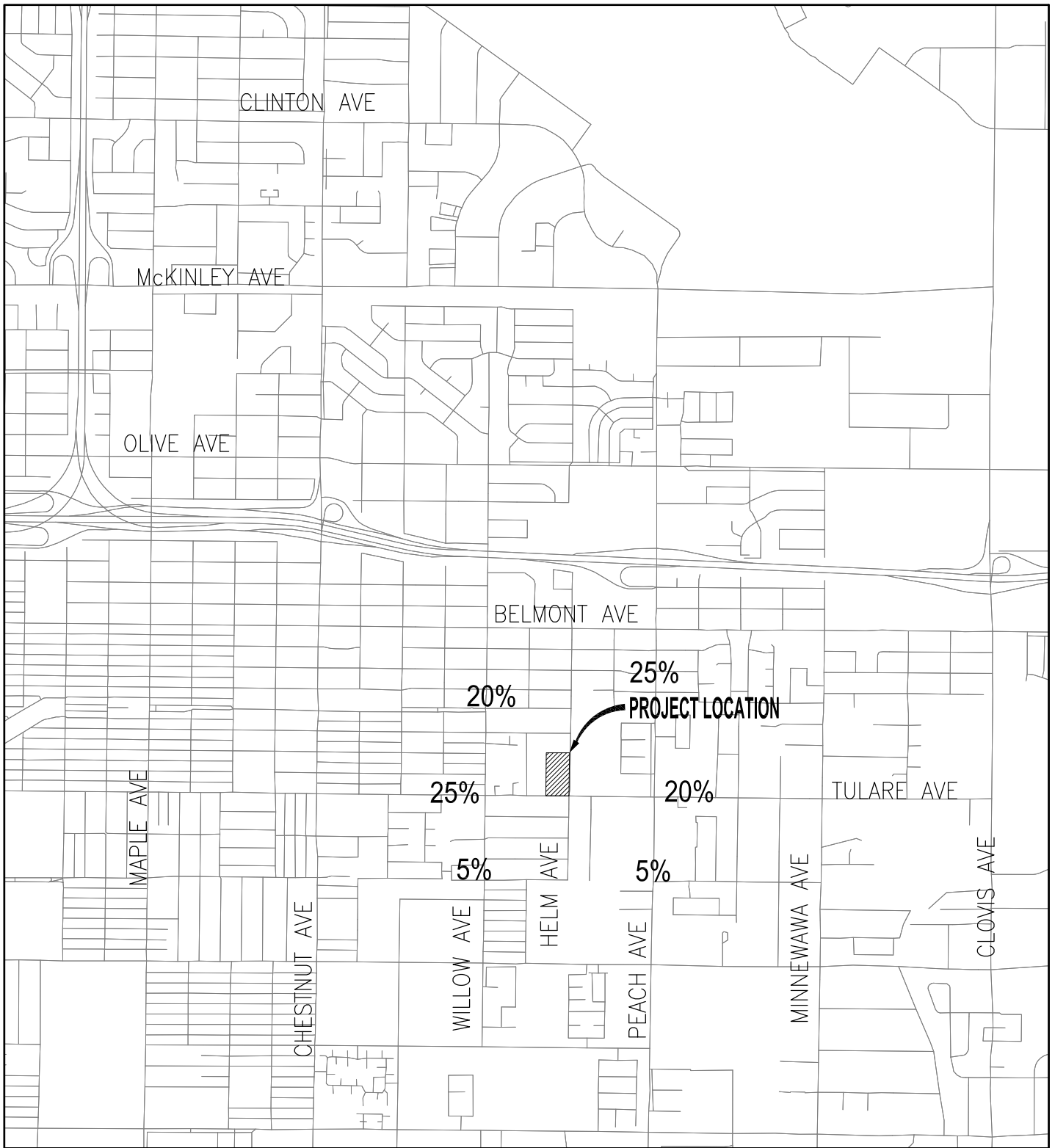


Not to Scale



Proposed Azorro Senior Housing Complex
 Fresno, California

SITE PLAN



Proposed Azorro Senior Housing Complex
 Fresno, California

LEGEND

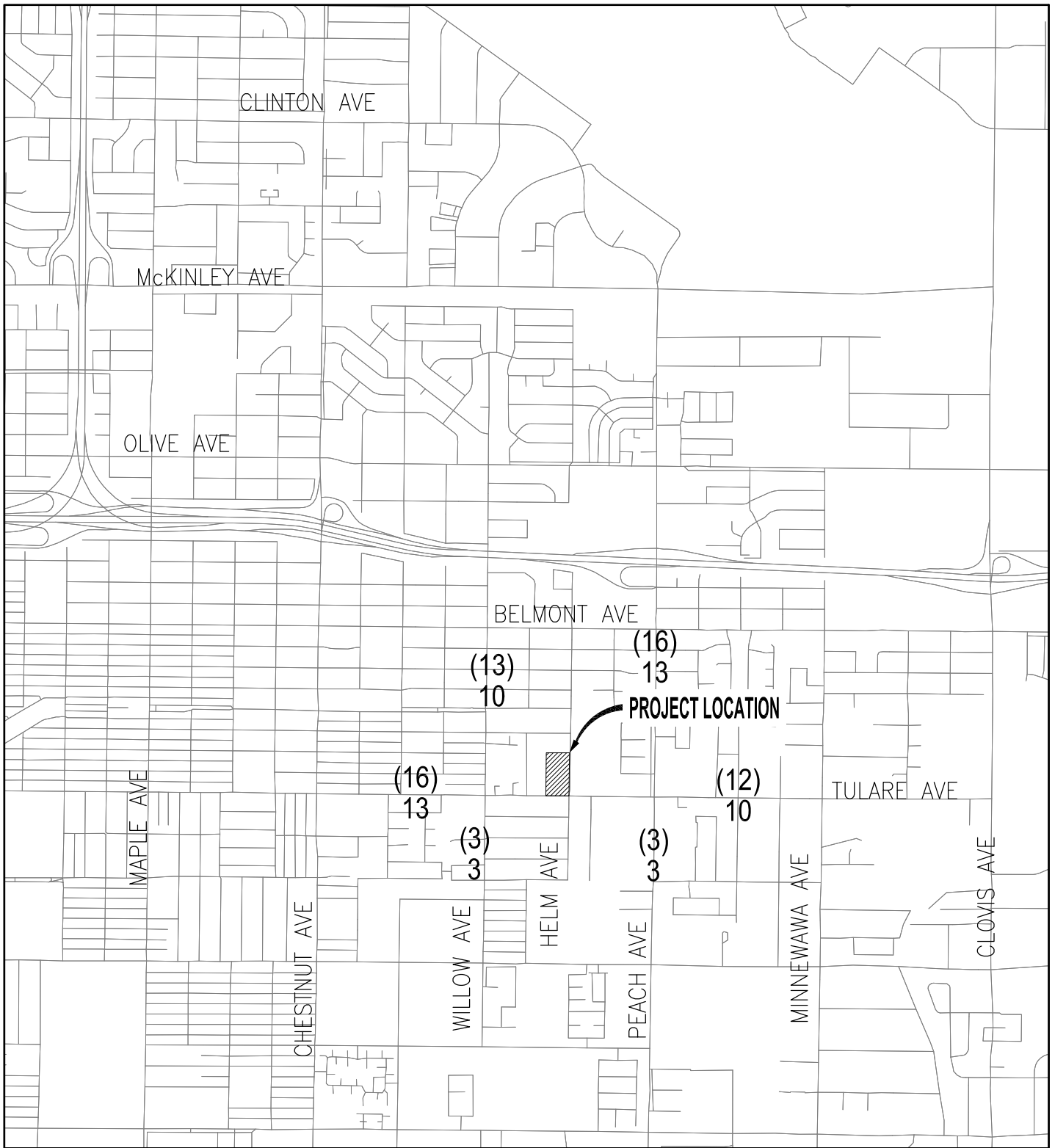
 PROJECT SITE

PROJECT TRAFFIC DISTRIBUTION PERCENTAGES



Not to Scale





Proposed Azorro Senior Housing Complex
 Fresno, California

LEGEND

▨ PROJECT SITE
 XX (YY) AM (PM) VOLUMES

PEAK HOUR PROJECT TRAFFIC VOLUMES



Not to Scale

**CITY OF FRESNO
PUBLIC WORKS DEPARTMENT
TRAFFIC STUDY CHECKLIST**

APPLICANT: _____

ASSIGNED PLANNER: _____

ACCELA/FAASTER REFERENCE NUMBER: _____

Traffic Study Submittal:

- Was prepared based on a scope of work approved by the City Traffic Engineer
- Used the most recent version of Synchro for intersection analysis
- Used the most recent version of the ITE Trip Generation
- Was prepared and reviewed under the supervision and direction of a qualified engineer or authorized owner/principal of firm
- Was prepared using count data collected within one year of the submittal date
- Includes an electronic copy, assembled as a complete document
- Includes One (1) hard copy
- Conforms to the most recent version of the City's Traffic Study Guidelines
- Includes operational analysis files (Synchro)

Traffic Study includes:

- Entitlement/Accela (FAASTER) No./ Tract or Parcel Map No.
- Assigned Planner's name
- Stamp and/or signature of qualified engineer or authorized owner/principal of firm stating the study was prepared and reviewed under their supervision and direction
- Project description
- Methodology description
- Project Trip Generation
- Trip Generation Comparison (if a General Plan Amendment)
- Delay analysis
- Queuing analysis for all movements at all study intersections
- Discussion of existing and planned bicycle, pedestrian and transit facilities
- Collision analysis
- On-site circulation analysis
- Mitigations and Recommendations

**CITY OF FRESNO
PUBLIC WORKS DEPARTMENT
TRAFFIC STUDY CHECKLIST**

APPLICANT: _____

ASSIGNED PLANNER: _____

ACCELA/FAASTER REFERENCE NUMBER: _____

Included Figures:

- Vicinity Map
- Site Plan
- Trip distribution at intersections/along roadways
- Trip distribution at proposed access points
- Volumes for all scenarios analyzed
- Lane configurations for all scenarios analyzed
- Locations of approved projects

Included Appendices:

- Approved Scope of Work
- Model request
- Model data
- Count data
- Level of Service analysis worksheets
- Collision data
- Warrants

CERTIFICATION OF APPLICANT: Read each of the statements below. After you have read the statements and understand them, please sign and date in the space provided at the end of this section:

- 1) I certify that I have read the Traffic Study Checklist thoroughly, followed any and all instruction, and have supplied the necessary information to allow staff to review my study or application and that the supplied information is true and correct information herein to the best of my knowledge and belief.
- 2) I understand that falsification or misrepresentation on my part of any of the information that I have supplied above constitutes sufficient grounds for return of my submittal, or should any of my responses be determined false, misleading and/or incomplete will subject my application/plans to review delays and may result in the requirement for the applicant to pay additional review fees.

Applicant's signature: _____

Date: _____