CITY OF ALBUQUERQUE



February 27, 2018

Terry Brown, P.E. P.O. Box 92051 Albuquerque, NM 87199

Re: Legacy NAA Apartments

Alameda Blvd./San Pedro Dr.

Trip Generation

Engineer's Stamp dated 12-18-2017 (C18D064B)

Dear Mr. Brown,

The subject Trip Generation received on December 18, 2017 has been reviewed and approved by the Transportation Development Section. An update to the Traffic Impact Study will not be required with this change in planned usage.

The analysis shows a reduction in trips generated by this site to a number below what was predicted in the full study. Should further significant modifications to the approved development proposal occur, the approved study shall be revised to incorporate any changes.

If you have any questions, please feel free to contact me at (505) 924-3633.

Sincerely,

Ernest Armijo, P.E.

C:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Senior Engineer, Planning Dept. Development Review Services

> via: email Applicant, File

Civil / Transportation Engineering

Monday, December 18, 2017

Ernest Armijo, P.E.

Transportation Development Section City of Albuquerque 600 2nd St. NW Albuquerque, NM 87102

Re: Legacy NAA Developments (Alameda Blvd. / San Pedro Dr.)

Dear Ernest:

Attached are the following documents for your review and comment:

- 1) Vicinity map depicting project location
- 2) 2016 Site Plan for Legacy NAA Developments project
- 3) 2017 Site Plan for apartments to replace retail commercial component of project
- 4) 2016 Trip Generation table from Traffic Impact Study
- 5) 2017 Trip Generation table comparison

The 2016 Traffic Impact Study calculated the trip generation rates for the project based on the ITE Trip Generation Manual, 9th Edition assuming retail commercial uses for the hard-northeast corner of Alameda Blvd. / San Pedro Dr. The 2017 Trip Generation rate calculations are based on the recently released ITE Trip Generation Manual, 10th Edition assuming the newly proposed Multi-Family (Mid-Rise) use. The 9th Edition of the ITE Trip Generation Manual classified the apartment use in slightly different categories than the 10th Edition. The 10th Edition classifies apartments into three different categories of land use: 1) Multifamily Housing (Low-Rise), 2) Multifamily Housing (Mid-Rise), and 3) Multifamily Housing (High-Rise). As the category names imply, the distinguishing difference in the categories is the building height (i.e., number of stories). Low-Rise Multifamily Housing is defined as 1 or 2 floors (or stories). Mid-Rise Multifamily Housing is defined as 3 to 10 floors (or stories). High-Rise Multifamily Housing is defined as more than 10 floors. The current project is three stories which qualifies the use of ITE Trip Generation rate for Multifamily (Mid-Rise). For purposes of comparison, the attached trip generation table for the 2017 project changes calculates and reports Mid-Rise Multifamily trip generation rates based on 135 dwelling units.

Page 2 of 2 Ernest Armijo, P.E. Monday, December 18, 2017

Re: Legacy NAA Developments (Alameda Blvd. / San Pedro Dr.)

This calculation demonstrates that there will be dramatic reduction in the number of trips generated by the project as a result of replacing the retail commercial uses on the west side of the project with a 135-dwelling-unit mid-rise apartment complex. Following is a summary table of the results:

Legacy NAA Development (Alameda Blvd. / San Pedro Dr.)

Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

| USE (ITE CODE) | | 24 HR VOL | A. M. PEAK HR. | | P. M. PEAK HR. | |
|---|-----------------|-----------|----------------|-------|----------------|-------|
| DESCRIPTION | | GROSS | ENTER | EXIT | ENTER | EXIT |
| Summary Sheet | Units | | | | | |
| Multifamily Housing - Mid-Rise (221) | 135 | 733 | 12 | 34 | 36 | 23 |
| Trip Generation Rate assumed in TIS for same Parce | el (Commercial) | 4,932 | 155 | 146 | 196 | 196 |
| % Increase (Reduction) compared to Mid-Rise Multifamily | / | -573% | -1192% | -329% | -444% | -752% |

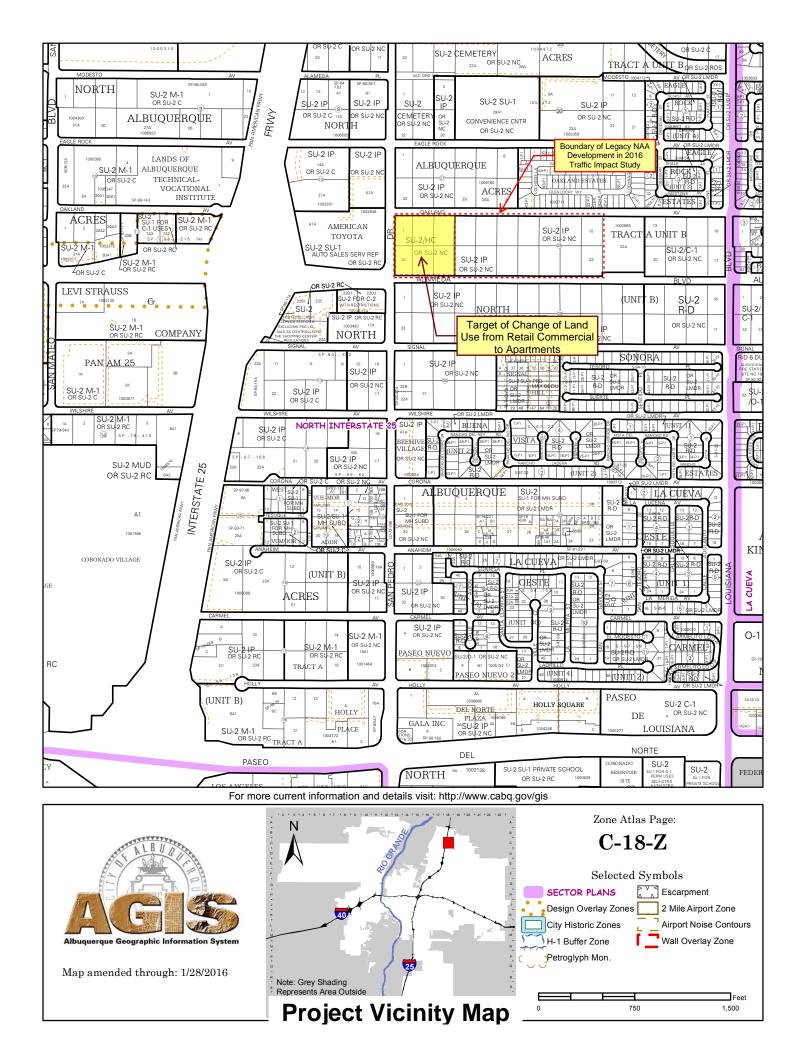
Please call me if you have questions.

Best Regards,

Terry O. Brown, P.E.

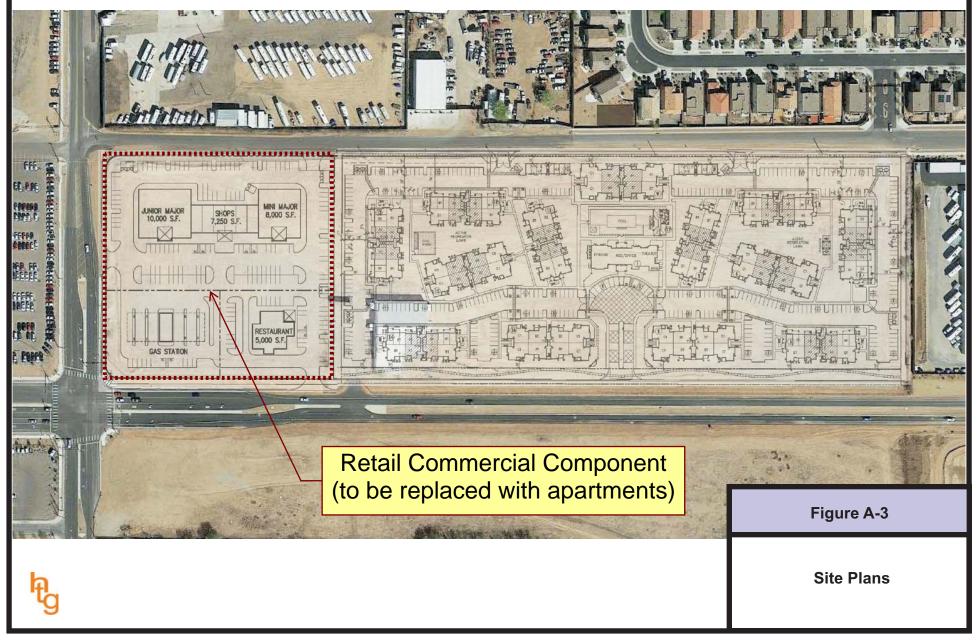
attachments as noted

cc: Racquel Michel, Transportation Development w/attachments Jackie Fishman, Consensus Planning w/attachments



Legacy NAA Developments (2016 Plan)





DEVELOPMENT DATA

NET SITE AREA:

4.4876 ACRES (195,479 S.F.)

ZONING

CURRENT: SU-2

crice of the state of the state

LEGACY NAA

SAN PEDRO AND ALAMEDA Albuquerque, New Mexico

World HQ@ORBArch.com





SETBACKS PROVIDED:

SIDE (N) REAR (W) SIDE (S) FRONT (E) BUILDINGS

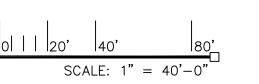
PARKING

| | | | UI | M TIV | IX | | | | | | | | | |
|--------------------------------|----|----|-------|-------|----|----|-----|----|----|-----|------|--------|-------|-------|
| | | UN | IT TY | PE | | | | | | | | | | |
| | S1 | Al | A2 | A2H | А3 | B2 | B2m | B4 | B5 | TB1 | TB1m | UNITS/ | NO. | TOTAL |
| LIVABLE STOR/GAR PAT/BAL | | | | | | | | | | | | | BLDGS | 1 |
| BLDG TYPE 1 | | | | | | | | | | 4 | 4 | 8 | 1 | 8 |
| BLDG TYPE 2 | 6 | 6 | 3 | 1 | 4 | 4 | 4 | 8 | 6 | | | 42 | 1 | 42 |
| BLDG TYPE 3 | 4 | 4 | 2 | 1 | 3 | 3 | 3 | 6 | 4 | | | 30 | 2 | 60 |
| TOTAL | 14 | 14 | 7 | 3 | 10 | 10 | 10 | 20 | 14 | 4 | 4 | | 4 | 110 |

2017 Site Plan

DATE: NOVEMBER 27, 2017 ORB # 17-219

SITE PLAN PRELIMINARY



4.0 TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

4.1 TRIP GENERATION

Project trips were generated using the Institute of Transportation Engineers (ITE) *Trip Generation*, 9th Edition, and the trip generation data are summarized in Table 6. Trips were generated based upon a series of land use categories. No specific tenants or tenant types for the commercial (shopping center) land use are known or assumed at this time. Should specific tenants generate trips differently than a generic shopping center, a reevaluation of the trip generation may be required. The data worksheet is contained in Appendix D.

Table 6
Trip Generation - Proposed Land Use

| LU Code | Development | Units | Daily | AM In | AM Out | PM In | PM Out |
|------------|--|-----------|-------|----------|-----------|----------|-----------|
| 220 | Apartment | 232 DU | 1529 | 23 | 94 | 94 | 51 |
| 820 | Shopping Center | 25,250 SF | 1078 | 15 | 9 | 45 | 49 |
| 934 | High Turnover Restaurant | 5,000 SF | 1250 | 58 | 56 | 43 | 39 |
| 934 | Gasoline Station w/ Convenience Store | 16 pumps | 2604 | 82 | 81 | 108 | 108 |
| _ | Subtotal | | 6461 | 178 | 240 | 290 | 247 |
| | Pass-By Trips (see breakout in App D.) | | - | - 41 | - 41 | - 85 | - 85 |
| | Site Access Total | | 6461 | 178 | 240 | 290 | 247 |
| | Roadway Network Total | | 6461 | 137 | 199 | 205 | 162 |

The pass-by trip reduction for retail trips was applied based upon agreement with City of Albuquerque staff. The ITE *Trip Generation Handbook* recommends pass-by reductions varying from 34% to 62% for the land uses listed. The gasoline station (#945) was rounded down to 50%, the high turnover restaurant (#932) to 40% and the retail (#820) has rounded down to 30% trips. The estimated pass-by trips are considered conservative.

4.2 Trip Distribution

The trip distribution from the site was generated using the Mid-Region Council of Governments (MRCOG) 2040 model year land use. The databank is consistent with the 2040 MTP travel demand model. Two trip distributions were developed for the site, one for retail trips and one for residential trips. The retail distribution area was determined based upon the population from data analysis subzones (DASZ) that fall within an approximate 3-mile radius of the site. The residential distribution area was the subzones within the AMPA, west of the Sandia Mountains and north of Valencia County. The residential trips were based upon employment within the subzones evaluated. Table 7 contains subarea routing descriptions to the site and O-D percentages for trips entering and exiting DASZ #7202 for the buildout year. Appendix D contains drawings of the distribution subarea boundaries and distribution percentage graphics. The residential and retail distributions are shown graphically in Figures D-1 and D-2, respectively.

Page from 2016 Legacy NAA Developments Traffic Impact Study

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Legacy NAA Development (Alameda Blvd. / San Pedro Dr.)

Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

| USE (ITE CODE) | | 24 HR VOL | A. M. PEAK HR. | | P. M. PE | AK HR. |
|--|-------|-----------|----------------|-------|----------|--------|
| DESCRIPTION | | GROSS | ENTER | EXIT | ENTER | EXIT |
| Summary Sheet | Units | | | | | |
| Multifamily Housing - Mid-Rise (221) | 135 | 733 | 12 | 34 | 36 | 23 |
| Trip Generation Rate assumed in TIS for same Parcel (Commerc | cial) | 4,932 | 155 | 146 | 196 | 196 |
| % Increase (Reduction) compared to Mid-Rise Multifamily | | -573% | -1192% | -329% | -444% | -752% |

Legacy NAA Development (Alameda Blvd. / San Pedro Dr.) Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

| USE (ITE CODE) | | | A. M. PEAK HOUR | | P. M. PEAK HOUR | |
|--------------------------------------|----------------|-------|-----------------------|------|-----------------------|------|
| | | GROSS | ENTER | EXIT | ENTER | EXIT |
| | Units | | | | | |
| Multifamily Housing - Mid-Rise (221) | 135 | 733 | 12 | 34 | 36 | 23 |
| | Dwelling Units | • | | • | | |

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

T = 5.44 (X) + -1.75 50% Enter, 50% Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR

Ln(T) = 0.98 Ln(X) + -0.98 26% Enter, 74% Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR

Ln(T) = 0.96 Ln(X) + -0.63 61% Enter, 39% Exit

Comments:

Tract No.

Based on ITE Trip Generation Manual - 10th Edition