



DREXEL BARRELL & Co.
Engineers - Surveyors

MEMORANDUM

TO: **El Paso County Planning and Community Development**
2880 International Circle, Suite 110
Colorado Springs, CO 80910
Attn: Gilbert LaForce, Engineer II

FROM: Derek Schuler, P.E., PTOE

DATE: July 2, 2020

RE: Traffic Memorandum for Space Village Apartments
El Paso County, Colorado

This memorandum serves to summarize the land use, probable trip generation, and vehicular access to the proposed apartment complex to be located at 6895 Space Village Avenue. The site is generally located just north of the Peterson Air Force Base (AFB). **See the attached figure for a vicinity map and proposed site layout.** The existing 0.628 acre site is currently a 22 unit hotel that will be redeveloped. The site is zoned as CC CAD-O and is generally surrounded by commercial/office uses and vacant land. The site is requesting a use variance to allow for the proposed apartments.

The existing hotel rooms will be converted to apartments with no significant changes to the building and parking layout. The existing use contains 31 regular parking spaces and 2 handicap accessible spaces. Since the number of units remains the same, it is assumed adequate parking is already provided. There are two existing access points to Space Village Avenue that will be retained with the proposed use. Interparcel drive access exists on the west side connecting the adjacent gas station and other commercial sites.

Proposed/Existing Land Use & Trip Generation Comparisons

The proposed land use will be an apartment complex containing 22 rental dwelling units (12 one bedroom and 10 two bedroom). The existing use is best described as a hotel rather than a motel due to the larger size of rooms and facilities provided. **Table 1** below shows the trip generation values for both existing and proposed uses. The table shows the number of expected trips using the latest ITE trip rates. This manual is currently in its 10th edition and is an industry accepted informational report published by the Institute of Transportation Engineers. Land use #310 – Hotel, accounts for the existing use. Note that “rooms” instead of “occupied rooms” is used as the independent variable (resulting in lower rate). Using the ITE rates, the existing site is expected to generate about 184 daily trips, 10 trips in the morning peak hour and 13 trips in the evening peak hour. Land use #220 – Multifamily Low Rise (apartments), accounts for the proposed use. The manual states that the average number of residents was 2.72 in their studies. This is considered acceptable for this site’s mix of 1 and 2 bedroom apartments. The new development is anticipated to generate about 161 daily trips, 10 trips in the morning peak hour and 12 trips in the evening peak hour. As shown in **Table 1**, the new

Traffic Memorandum for Space Village Apartments

Page 2

apartments are projected to have 23 fewer daily trips than the existing hotel. The peak hour values give slightly different patterns but not a significant change for traffic operations.

| Table 1 - Trip Generation Estimate for Space Village Apartments, El Paso County, CO | | | | | | | | | | | | | | | |
|--|-------|------------------------------------|------|------|-----------------------------|----------------------|-------|---------------------|-------|-------|----------------------|-------|---------------------|-------|-------|
| ITE Code / Land Use | | Trip Generation Rates ¹ | | | Trips Generated | | | | | | | | | | |
| | | | | | Average Weekday Trips | AM Peak-Hour (7 - 9) | | | | | PM Peak-Hour (4 - 6) | | | | |
| | | | | | | Inbound % Trips | Trips | Outbound % Trips | Trips | Total | Inbound % Trips | Trips | Outbound % Trips | Trips | Total |
| #310 - Hotel | 22 RM | 8.36 | 0.47 | 0.60 | 184 | 59% | 6 | 41% | 4 | 10 | 51% | 7 | 49% | 6 | 13 |
| #220 - MFH Low Rise ² | 22 DU | 7.32 | 0.46 | 0.56 | 161 | 23% | 2 | 77% | 8 | 10 | 63% | 8 | 37% | 5 | 12 |
| Reduced Trips | | | | | 23 | | 4 | | (4) | 0 | | (1) | | 2 | 1 |

¹Source: "Trip Generation" Institute of Transportation Engineers, 10th Edition, 2017

²Multifamily Housing (Low Rise): Average number of residents was 2.72 in studies. Acceptable for this site's mix of 1 and 2 bedroom apartments.

RM = Room; DU = Dwelling Unit

Existing Roads & Distribution

Space Village Avenue, in front of the subject site, is classified as a minor arterial. It contains two travel lanes plus striped left and right turn lanes. Both access driveways offer full movement onto Space Village Ave. and contain dedicated right turn lanes. Only the eastern access has a dedicated left turn lane for entering the site (this is actually striped as a two way left turn lane). North of the site are ramps to/from US 24 with dedicated turning lanes on Space Village Ave.

The anticipated distribution of site traffic is 90% to/from the west and 10% to/from the east. West of the site is access to Peterson Blvd (and AFB), and westbound US 24 towards central Colorado Springs. Primary movements to the site will be right-in and then left-out to leave the site. The existing access locations will remain appropriate based on both the trip generation and distribution. Finally, there is an existing attached sidewalk along a portion of the site frontage. The county may require that this sidewalk be extended to the eastern property line.

Conclusion

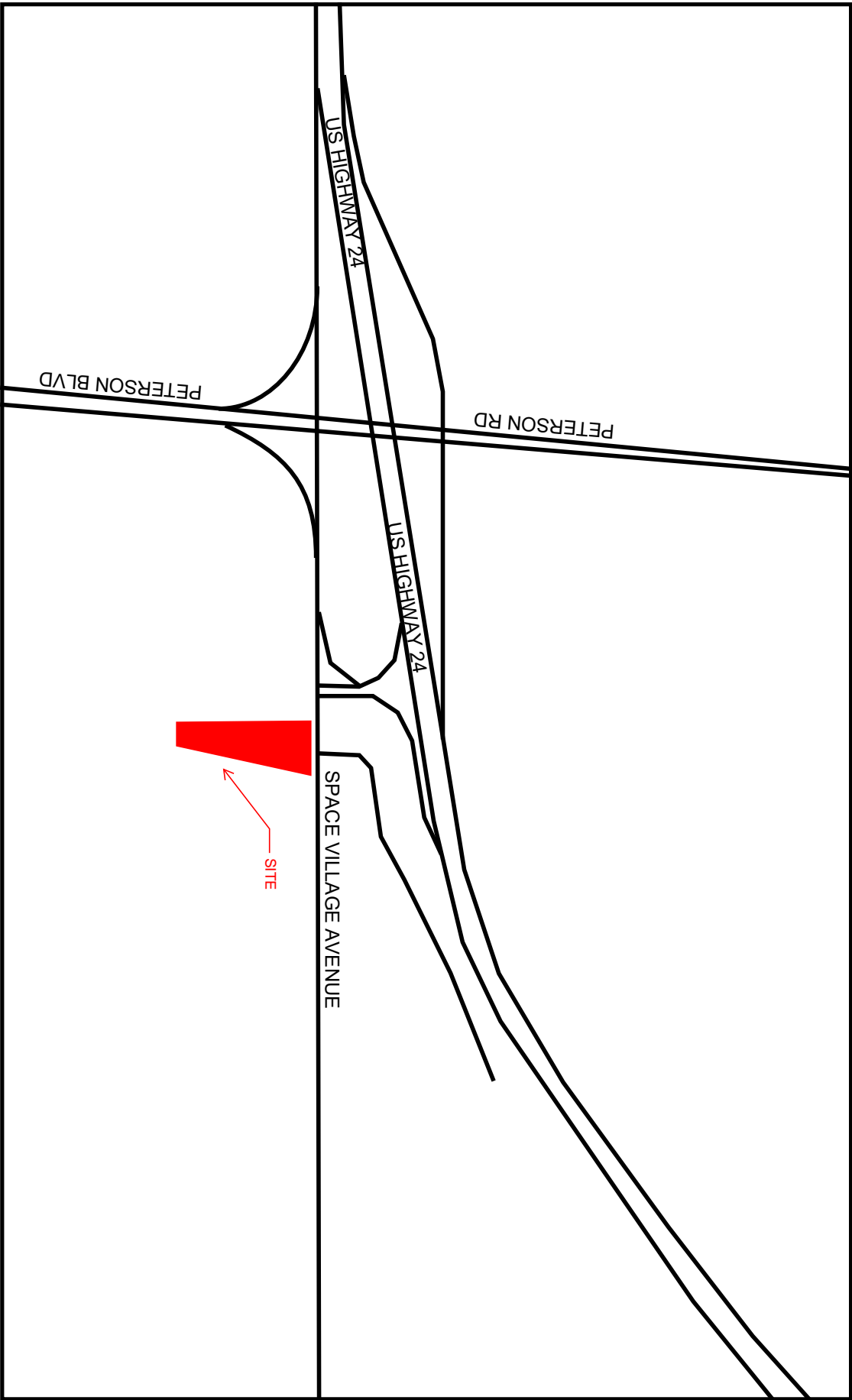
With the proposed change in use for this site, vehicular traffic will be more than adequately accommodated by the existing access locations and Space Village Avenue. If you have any questions or would like to discuss my analysis further, please don't hesitate to contact me.

Sincerely,
Drexel, Barrell & Co.

Derek Schuler

Derek Schuler, P.E., PTOE
Transportation Group Leader

VICINITY MAP



VICINITY
MAP

| | | |
|-------------------------|----|-----------|
| DESIGNED | RF | 1.31.2020 |
| DRAWN | RF | 1.31.2020 |
| CHECKED | RF | 1.31.2020 |
| PROJECT NUMBER: 3837.00 | | |
| SCALE: AS NOTED | | |

| REV # | REVISIONS | DATE |
|-------|-----------|------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |

STAMP:

Space Village Apartments
Vicinity Map

Colorado Springs, CO

Kimley»Horn

© 2020 KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVENUE, SUITE 300
COLORADO SPRINGS, CO 80903
PHONE: 719-453-0180

