



**DREXEL BARRELL & Co.**  
Engineers - Surveyors

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## **MEMORANDUM**

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**TO:** **El Paso County Planning and Community Development**  
2880 International Circle, Suite 110  
Colorado Springs, CO 80910  
**Attn: Daniel Torres, P.E., Engineer II**

**FROM:** Derek Schuler, P.E., PTOE

**DATE:** October 19, 2020

**RE:** Traffic Memorandum for Space Village Apartments  
El Paso County, Colorado  
PCD FILE NO. VA201

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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 10<sup>th</sup> 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

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the morning peak hour and 12 trips in the evening peak hour. As shown in **Table 1**, the new 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      Size		Trip Generation Rates <sup>1</sup>			Trips Generated											
					Average Weekday Trips	AM Peak-Hour (7 - 9)					PM Peak-Hour (4 - 6)					Total
		Avg. Weekday	AM PEAK	PM PEAK		% Trips	Trips	% Trips	Trips	% Trips	Trips	% Trips	Trips	% Trips	Trips	
#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 <sup>2</sup>	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		

<sup>1</sup>Source: "Trip Generation" Institute of Transportation Engineers, 10th Edition, 2017

<sup>2</sup>Multifamily 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. There is a continuous lane for right turns from the Peterson Blvd off ramp to Command View Drive. Hook striping indicates that right turns are mandatory at each entrance. The spacing between the two entrances available for right turns is 120 feet. 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). This lane extends from Command View Drive to the US 24 on ramp north of the site. A recent site visit confirmed that the pavement striping is in good condition and the access sight distance is adequate. There are some street trees that have lower branches pruned and this should be maintained.

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 has required that this sidewalk be extended to the eastern property line

### Variance from ECM requirements

As discussed with the county reviewer on 10/5/20, the applicant is requesting a variance from the county's Engineering Criteria Manual (ECM), Appendix B – Transportation Impact Study Guidelines. The change in use for this site nearly meets the requirements of ECM B.1.2.D: No TIS Required. The site will still have slightly more than 100 daily trips but also reduces trips from the existing use. The applicant requests that this memo serve as acceptable documentation for these requirements. The following other factors are offered as justification to not pursue further traffic study and also to be exempt from the road impact fee:

- The site is not generating any additional trips.
- New use reduces trips.
- Analysis and inclusion of surrounding major intersections and traffic systems is excessive and unwarranted due to level of report and minor nature of the overall project and its impacts.

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- Analysis of nearby road networks and intersections is arbitrary since the traffic generated does not have any significant or substantive impacts and any related improvements would be beyond what the actual impact from this site would have on these facilities.
- No additional access improvements are triggered or otherwise required.

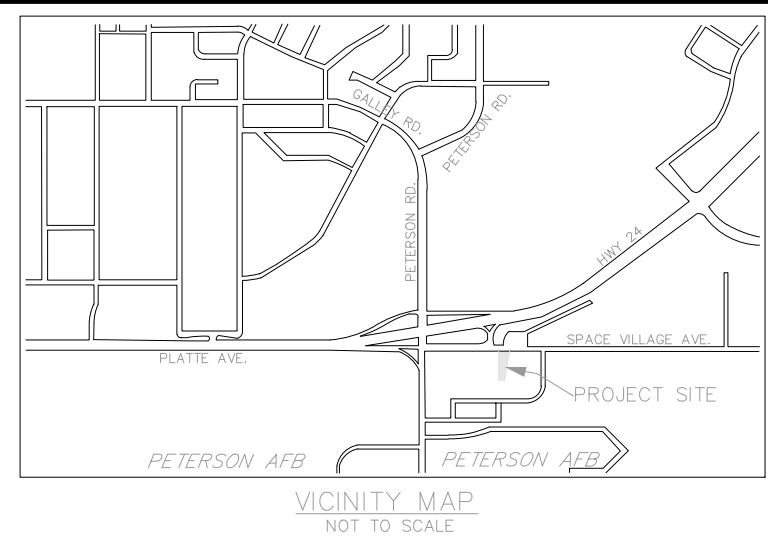
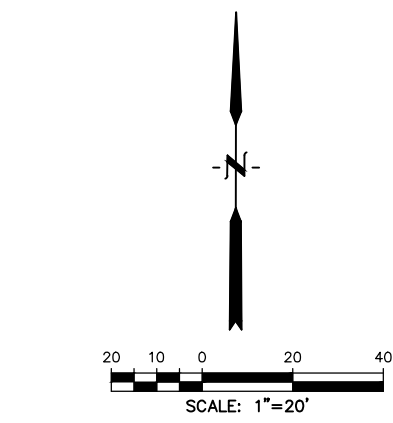
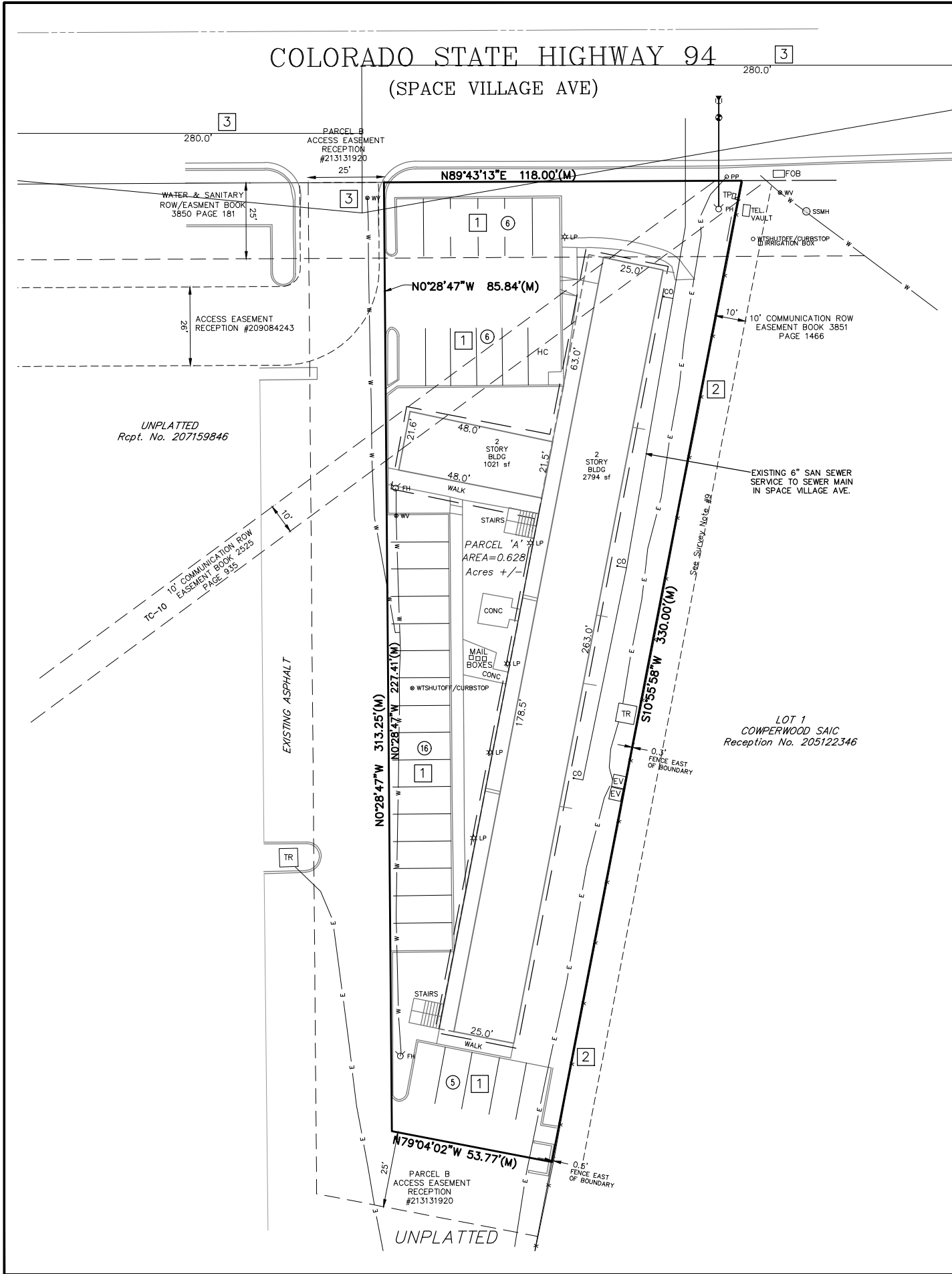
### Conclusion

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



Legend	
CONC	Miscellaneous concrete
R.O.W.	Right of Way
+/-	more or less
sf	square feet
ESMT	easement
RCPT. NO.	Reception Number
○ CO	Sanitary sewer cleanout
FOB	Fiber Optic Box
□ TP	Telephone Pedestal
○ SSMH	Sanitary Manhole
EV	Electric Vault
⊕ FH	Fire Hydrant
⊕ WV	Water Valve
CATV	Cable TV Vault
DOWNDNR	Roof drain pipe
⑩	Parking Stall Count
— x —	Chain link fence
— T —	Telephone
— E —	Electric
— G —	Gas
— W —	Water

STANDARD PARKING AT 19'.....	1
CHAIN LINK FENCE AT PROPERTY LINE.....	2
SIGHT DISTANCE TRIANGLE (25 MPH).....	3
ADA ACCESSIBLE ROUTE.....	4

PREPARED BY:  
  
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CIVIL CONSTRUCTION PLANS  
**SPACE VILLAGE APARTMENTS**  
6895 SPACE VILLAGE AVE  
COLORADO SPRINGS, COLORADO

ADA ACCESSIBLE ROUTE

ISSUE	DATE
INITIAL ISSUE	01-20-20
DESIGNED BY:	CRS
DRAWN BY:	CRS
CHECKED BY:	TDM
FILE NAME:	21268-00DP1

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF DREXEL, BARRELL & CO.

DRAWING SCALE:  
HORIZONTAL: 1" = 40'  
VERTICAL: N/A

SITE UTILITY PLAN

PROJECT NO. 21268-00CSCV  
DRAWING NO.

Know what's below.  
Call before you dig.  
CALL 3-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

UT1

SHEET: 1 OF 2