Kimley»Horn

June 13, 2024

Mr. Cole C. Froemming
Lincoln Avenue Communities
401 Wilshire Boulevard, 11th Floor,
Santa Monica, CA 90401

Re: Bradley Heights Apartments
Traffic Compliance Letter
Colorado Springs, Colorado

Dear Mr. Froemming,

This letter documents the results of a trip generation analysis to identify traffic compliance with the originally completed master traffic impact study for the proposed Bradley Heights Apartments development located to the southwest of the Legacy Hill Drive and Bradley Landing Boulevard intersection in Colorado Springs, Colorado. A conceptual site plan for the project is attached.

The site is proposed to include a total of 336 multifamily dwelling units constructed in two phases. The originally completed master traffic study for this development in September 2021 is called *Bradley Heights Master Development Traffic Impact Study* and it named this parcel "Parcel 7", upon which it assumed 350 multifamily dwelling units. As such, the proposed traffic generation of the site under current analysis methods with 336 multifamily dwelling units will be compared to the 350 multifamily dwelling units originally proposed from the master study. Applicable documents from the master study are attached.

TRIP GENERATION

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual*[1] published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses.

For this study, Kimley-Horn used the ITE Trip Generation Manual average rates that apply to Multifamily Low-Rise Housing (ITE Land Use Code 220) for traffic associated with this development. The following table summarizes the estimated trip generation for traffic associated with the development (calculations attached). Of note, because the master traffic study was completed several years ago, the master study used ITE Trip Generation 10th Edition average rates, which differ from those in the current edition of the ITE Trip Generation Manual (11th Edition).

1 Institute of Transportation Engineers, *Trip Generation Manual*, Eleventh Edition, Washington DC, 2021.

Bradley Heights Apartments Traffic Generation

Land Use and Size	Weekday Vehicles Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Previous Study – ITE 10th Edition							
Multifamily Low-Rise Housing (ITE 220) – 350 Dwelling Units	2,606	36	120	156	108	65	173
Current Proposal – ITE 11th Edition							
Multifamily Low-Rise Housing (ITE 220) – 336 Dwelling Units	2,266	32	102	134	108	63	171
Net Difference in Trips	***-340***	***-4***	***-18***	***-22***	***0***	***-2***	***-2***

As shown in the table and based on ITE Trip Generation calculations, the Bradley Heights Apartments development is anticipated to generate approximately 2,266 weekday daily trips, with 134 of these trips occurring during the morning peak hour and 171 of these trips occurring during the afternoon peak hour. The previous study with 350 multifamily dwelling units using ITE 10th Edition average rates anticipated this parcel generating 2,606 weekday daily trips, with 156 of these trips occurring during the morning peak hour and 173 of these trips occurring during the afternoon peak hour.

Based on these results, the current proposal would be expected to generate 340 fewer weekday daily trips, with 22 fewer morning peak hour trips and two (2) fewer afternoon peak hour trips when compared to what was evaluated in the original traffic study. As such, it is believed this current proposal is in traffic compliance with the originally completed traffic study for the overall Bradley Heights area and that no further traffic analysis is needed.

CONCLUSIONS

Based on the traffic analysis presented in this report, Kimley-Horn and Associates, Inc. believes that Bradley Heights Apartments is in traffic compliance with the originally completed master traffic impact study and that the project will be successfully incorporated into the existing and future roadway network. The following outlines the conclusions from our traffic analysis:

- The Bradley Heights Apartments site is proposed to include 336 multifamily dwelling units. This site would be expected to generate 2,266 weekday daily trips, with 134 of these trips occurring during the morning peak hour and 171 of these trips occurring during the afternoon peak hour.
- A master traffic impact study was completed for the overall Bradley Heights development area in September 2021. Parcel 7 in that master study corresponds to the currently proposed site, which this master study assumed could include up to 350 multifamily dwelling units. Because the original study was completed in 2021, ITE Trip Generation Manual 10th Edition rates were used. The original study for this parcel would have been expected to generate 2,606 weekday daily trips, with 156 of these trips occurring during the morning peak hour and 173 of these trips occurring during the afternoon peak hour.

- The current proposal would be expected to generate approximately 340 fewer weekday daily trips, with 22 fewer morning peak hour trips and two (2) fewer afternoon peak hour trips than the use evaluated in the original master traffic study.
- Because the proposed site is expected to result in a net decrease in trips during both peak hours and the overall daily trips, it is believed this proposal is in traffic compliance with the originally completed master traffic impact study and that no further traffic analysis is needed.

If you have any questions or require anything further, please feel free to call me at (720) 943-9962.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Jeffrey R. Planck

Jeffrey R. Planck, P.E.
Project Traffic Engineer

Conceptual Site Plan

LEGACY HILL DRIVE
(X' R.O.W.)

PHASE 2 | PHASE 1

BRADLEY LANDING BLVD.
(X' R.O.W.)

BLDG. 14
24 UNITS

BLDG. 1
24 UNITS

BLDG. 2
24 UNITS

BLDG. 3
24 UNITS

BLDG. 4
24 UNITS

BLDG. 5
24 UNITS

BLDG. 6
24 UNITS

BLDG. 7
24 UNITS

BLDG. 8
24 UNITS

BLDG. 9
24 UNITS

BLDG. 10
24 UNITS

BLDG. 11
24 UNITS

BLDG. 12
24 UNITS

BLDG. 13
24 UNITS

CLUBHOUSE

ACCESSORY AMENITY

FITNESS

MAIL
LAUNDRY

POOL

PLAY

GRILL

GAZEBO

SIGN

TRASH

MAINT.

DOG PARK

FUTURE PARK

10-SPACE CARPORT

12-SPACE CARPORT

8-SPACE CARPORT

14-SPACE CARPORT

20-SPACE CARPORT

250 249 248 247 246 245 244 243 242 241 240 239

1 SITE PLAN

SCALE: 1"=40'-0"

0 5 15 25 50 100

NORTH

Master Traffic Study Documents

Matrix Design Group, Inc.
2435 Research Parkway, Suite 300
Colorado Springs, CO 80920
O 719.575.0100
F 719.575.0208
matrixdesigngroup.com

September 14, 2021

Bradley Heights Metropolitan District
119 N. Wahsatch Avenue
Colorado Springs, CO 80903
Attention: Mr. Randle Case II

RE: Bradley Heights Master Development Traffic Impact Study

Dear Mr. Case:

Matrix Design Group (Matrix) is pleased to present this traffic impact study (TIS) for the Bradley Heights Master Development. This TIS analyzes the existing roadway network in the vicinity of the project as well as the proposed internal roadways and determines the impact of the additional traffic generated by the proposed development. The full build-out year (2030) and horizon year (2045) conditions were analyzed, with and without the addition of the project traffic.

Introduction

The purpose of this traffic impact study is to determine what impacts the overall Bradley Heights development will have on the surrounding roadway network at buildout as well as the design of the major internal roadways and intersections. Roadways internal to the individual developments and separate filing access points are not part of this study and will be reviewed as required, by others, as each individual development is submitted for review. The objective is to determine the overall project access requirements at major entry points to the surrounding roadway network and roadway and intersection sizing internal to the development.

Area Conditions

Study Area Land Use
The project site is in southeast Colorado Springs and is generally bounded by Bradley Road on the north, Marksheffel Road on the east, Fontaine Boulevard on the south and Powers Boulevard on the west. The project site is currently vacant. The site is currently zoned as a Planned Unit Development (PUD). The Trails at Aspen Ridge development has been approved by El Paso County immediately to the west of Bradley Heights. Two developments are currently in the entitlement process within Bradley Heights, which are located along Bradley Road. These are Bradley Heights Filing No. 1 and the Redemption Hill Church.

Site Accessibility
The existing roadway system consists of the following major roadways:

Bradley Road – Bradley Road is currently a 4-lane divided roadway with a posted speed of 50 miles-per-hour. It is classified as a Minor Arterial by El Paso County to the west of the project site and as an Expressway by the City of Colorado Springs in its current Major Thoroughfares Plan.

Powers Boulevard – Powers Boulevard is currently a 4-lane divided roadway maintained as State Highway 21 by the Colorado Department of Transportation (CDOT). It has a posted speed of 65 miles-per-hour between Fontaine Boulevard and Bradley Road. Powers Boulevard is classified as a Freeway (F-W) for access control but has a functional classification as a principal arterial.

Marksheffel Road – Marksheffel Road is currently a 4-lane divided roadway along most of the eastern project boundary transitioning to a 3-lane road with a posted speed of 45 miles-per-hour in the City

Table 1 – Existing AM Peak Hour Traffic Operations Summary

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Powers Bl/Bradley Rd	Signalized	HCM 6th Edition	WB Right	0.486	18.6	B
6	Bradley Rd/Foreign Trade Zone Bl	Two-way stop	HCM 6th Edition	SB Left	0.040	26.4	D
11	Marksheffel Rd/Bradley Rd	Signalized	HCM 6th Edition	EB Left	0.345	16.8	B
16	Powers Bl/Fontaine Bl	Signalized	HCM 6th Edition	WB Thru	0.240	16.1	B
21	Marksheffel Rd/Fontain Bl	Signalized	HCM 6th Edition	WB Left	0.190	13.1	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Table 2 – Existing PM Peak Hour Traffic Operations Summary

Intersection Analysis Summary

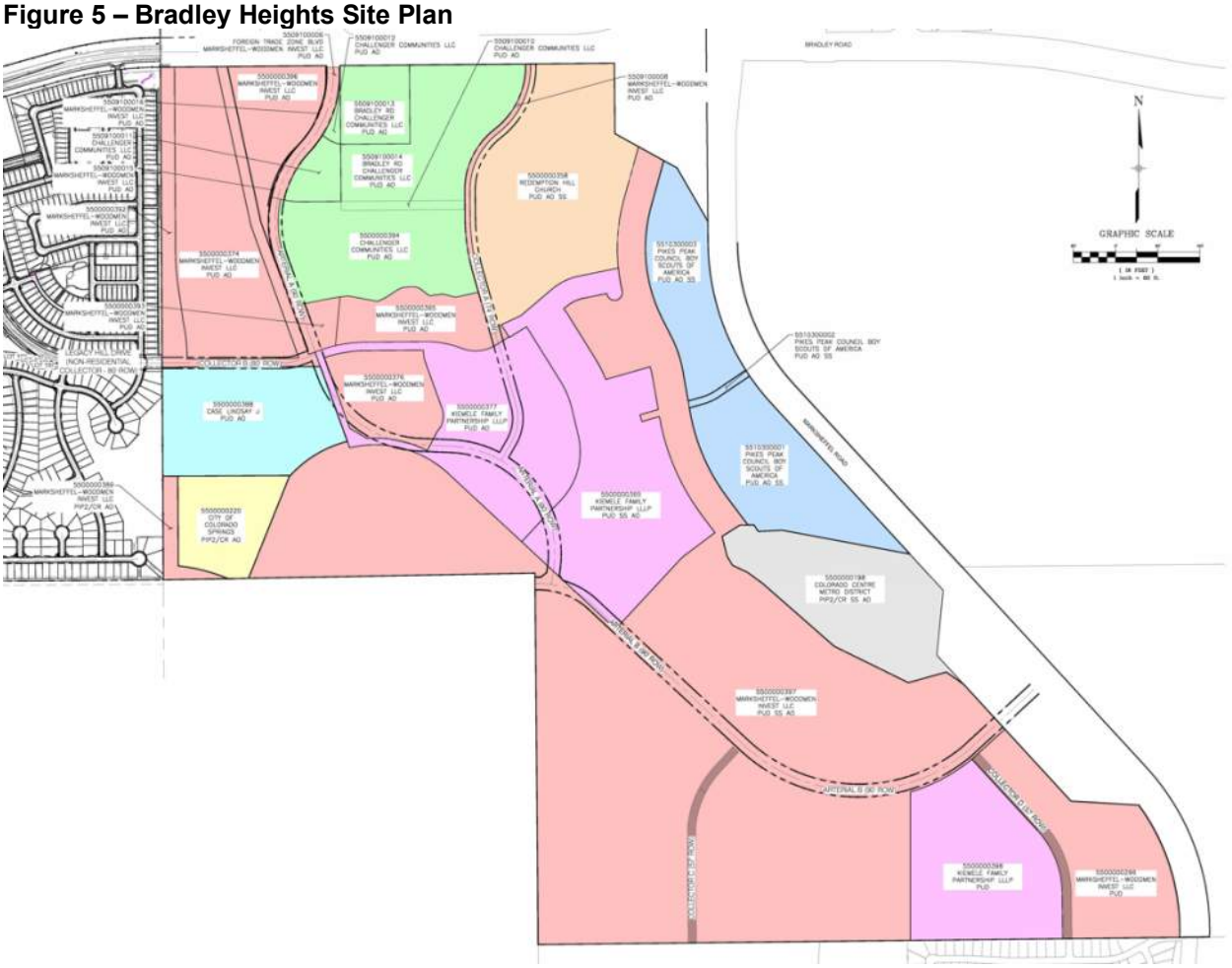
ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Powers Bl/Bradley Rd	Signalized	HCM 6th Edition	WB Right	0.543	15.7	B
6	Bradley Rd/Foreign Trade Zone Bl	Two-way stop	HCM 6th Edition	SB Left	0.158	22.8	C
11	Marksheffel Rd/Bradley Rd	Signalized	HCM 6th Edition	EB Left	0.505	18.9	B
16	Powers Bl/Fontaine Bl	Signalized	HCM 6th Edition	EB Thru	0.315	18.2	B
21	Marksheffel Rd/Fontaine Bl	Signalized	HCM 6th Edition	WB Left	0.216	12.2	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Proposed Development

The Bradley Heights development is approximately 530 acres and will consist of 1,541 single-family dwelling units, 1,295 multi-family dwelling units, a 600-seat church, 78,500 square feet of retail, an 87,600 square foot business center, and a 196,000 square foot elementary school. The site plan is shown in Figure 5. Two right-in/right-out (RIRO) access points are proposed along Bradley Road west of Foreign Trade Zone Boulevard. A new collector roadway (Bradley Landing) will intersect Bradley Road at the Foreign Trade Zone Boulevard intersection and provide full movement access. An additional new collector road (Bliss Road) will intersect Bradley Road and provide full movement access between Foreign Trade Zone Boulevard and Marksheffel Road. An internal roadway will connect to Legacy Hill Drive in the Trails at Aspen Ridge development to the west. Two full movement access points and a RIRO access point will be proposed along Marksheffel Road. The sight distance for the access points will be investigated in the more detailed traffic studies for each filing.

Figure 5 – Bradley Heights Site Plan



Project Traffic

Site Traffic

Matrix used the *Institute of Transportation Engineers Trip Generation Manual, 10th Edition* to determine how many vehicle trips will be generated by the project. The results of this can be seen in Table 3. Table 3 represents the new trips onto the roadway network. Because there is a combination of residential, office and retail land uses, internal vehicle trip capture was accounted for reducing the total number of new vehicle trips on the roadway network. Additionally, pass-by trips and diverted trips were also accounted for thereby reducing total trips generated. The details of these calculations can be found in Appendix B and followed ITE guidelines.

Matrix determined the distribution of project trips to the roadway network using a combination of traffic studies from surrounding developments. This distribution was reviewed and approved by City Traffic Engineering on June 24, 2021. The trip distribution is shown in Figure 6.

The new site trips are shown in Figures 7 and 8, which is the result of taking the trips generated by the project (Table 3) and distributing them per the proposed trip distribution (Figure 6).

Table 3 – Project Trip Generation

Land Use	Size	AM Peak Hour			PM Peak Hour			Daily		
	(DUs, Seats, GFA)	Entry	Exit	Total	Entry	Exit	Total	Entry	Exit	Total
210 - Single-Family Detached Housing	161	30	88	118	97	57	154	806	806	1612
Parcel 1 Subtotal		***30***	***88***	***118***	***97***	***57***	***154***	***806***	***806***	***1612***
820 - Shopping Center	78.5	101	69	170	72	73	145	2550	2550	5100
Parcel 2 Subtotal		***101***	***69***	***170***	***72***	***73***	***145***	***2550***	***2550***	***5100***
210(1) - Single-Family Detached Housing	166	31	91	122	100	59	159	829	829	1658
210(2) - Single-Family Detached Housing	196	36	107	143	117	70	187	966	966	1932
Parcel 3-8 Subtotal		***67***	***198***	***265***	***217***	***129***	***346***	***1795***	***1795***	***3590***
560 - Church	600	3	3	6	7	11	18	132	132	264
710 - General Office Building	87.6	90	11	101	11	67	78	467	467	934
Parcel 5A Subtotal		***93***	***14***	***107***	***18***	***78***	***96***	***599***	***599***	***1198***
210(3) - Single-Family Detached Housing	60	12	36	48	37	22	59	325	325	650
Parcel 5B Subtotal		***12***	***36***	***48***	***37***	***22***	***59***	***325***	***325***	***650***
520 - Elementary School	196	751	615	1366	121	148	269	1913	1913	3826
Parcel 9A&B Subtotal		***751***	***615***	***1366***	***121***	***148***	***269***	***1913***	***1913***	***3826***
210(4) - Single-Family Detached Housing	280	51	151	202	166	99	265	1341	1341	2682
Parcel 9C Subtotal (DUs)		***51***	***151***	***202***	***166***	***99***	***265***	***1341***	***1341***	***2682***
220 - Multifamily Housing (Low-Rise)	604	61	201	262	86	222	308	2263	2263	4526
Parcel 11 Subtotal		***61***	***201***	***262***	***86***	***222***	***308***	***2263***	***2263***	***4526***
210(5) - Single-Family Detached Housing	165	30	90	120	29	89	118	824	824	1648
Parcel 13 Subtotal		***30***	***90***	***120***	***29***	***89***	***118***	***824***	***824***	***1648***
210(6) - Single-Family Detached Housing	250	46	136	182	148	89	237	1208	1208	2416
Parcel 14 Subtotal		***46***	***136***	***182***	***148***	***89***	***237***	***1208***	***1208***	***2416***
210(7) - Single-Family Detached Housing	263	48	142	190	156	93	249	1266	1266	2532
Parcel 16 Subtotal		***48***	***142***	***190***	***156***	***93***	***249***	***1266***	***1266***	***2532***
220(1) - Multifamily Housing (Low-Rise)	341	35	117	152	106	63	169	1269	1269	2538
Parcel 17 Subtotal		***35***	***117***	***152***	***106***	***63***	***169***	***1269***	***1269***	***2538***
220(2) - Multifamily Housing (Low-Rise)	350	36	120	156	108	65	173	1303	1303	2606
Parcel 7 Subtotal		***36***	***120***	***156***	***108***	***65***	***173***	***1303***	***1303***	***2606***
Project Total		***1361***	***1977***	***3338***	***1361***	***1227***	***2588***	***17462***	***17462***	***34924***

Trip Generation Worksheet

Kimley»Horn

Project	Bradley Heights Apartments				
Subject	Trip Generation for Multifamily Housing (Low-Rise)				
Designed by	TJD	*Date*	June 10, 2024	*Job No.*	296008001
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 11th Edition, Average Rate Equations

Land Use Code - Multifamily Housing (Low-Rise) (220)

Independent Variable - Dwelling Units (X)

X = 336
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 255)

Average Weekday
(T) = 0.40 (X)
(T) = 0.40 * (336.0)

Directional Distribution: 24% ent. 76% exit.
T = 134 Average Vehicle Trip Ends
32 entering 102 exiting

32 + 102 = 134

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 256)

Average Weekday
(T) = 0.51(X)
(T) = 0.51 * (336.0)

Directional Distribution: 63% ent. 37% exit.
T = 171 Average Vehicle Trip Ends
108 entering 63 exiting

108 + 63 = 171

Weekday (200 Series Page 254)

Average Weekday
(T) = 6.74 (X)
(T) = 6.74 * (336.0)

Directional Distribution: 50% entering, 50% exiting
T = 2266 Average Vehicle Trip Ends
1133 entering 1133 exiting

1133 + 1133 = 2266