

November 21, 2024

Mr. Martin Petrov
Housing Developer
The Housing Authority of the City of Aurora
2280 S. Xanadu Way
Aurora, CO 80014

**Reference: Stanley 98 Multifamily in Aurora, CO
FHU Project No. 124233-01**

Dear Mr. Petrov:

Felsburg Holt & Ullevig (FHU) has prepared the following analysis in response to City of Aurora traffic review staff comments regarding your proposed construction of a four-story, 75-unit multifamily development located between Ironton Street and Joliet Street south of E. 25th Drive in Aurora, Colorado. City staff requested the following:

- Trip generation analysis of the site
- Estimates of trip distribution

Figure 1 shows the site location, and **Figure 2** illustrates the preliminary layout of the site.

Trip Generation

FHU used trip generation rates from the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Eleventh Edition, 2021*, to estimate the traffic generated by the site (**Table 1**). **Table 2** shows the estimated trip generation for the current proposed site. Land Use Code #221 was selected for this analysis, as the proposed site fits into the definition of *Multifamily Housing (Mid-Rise)*: "Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways."

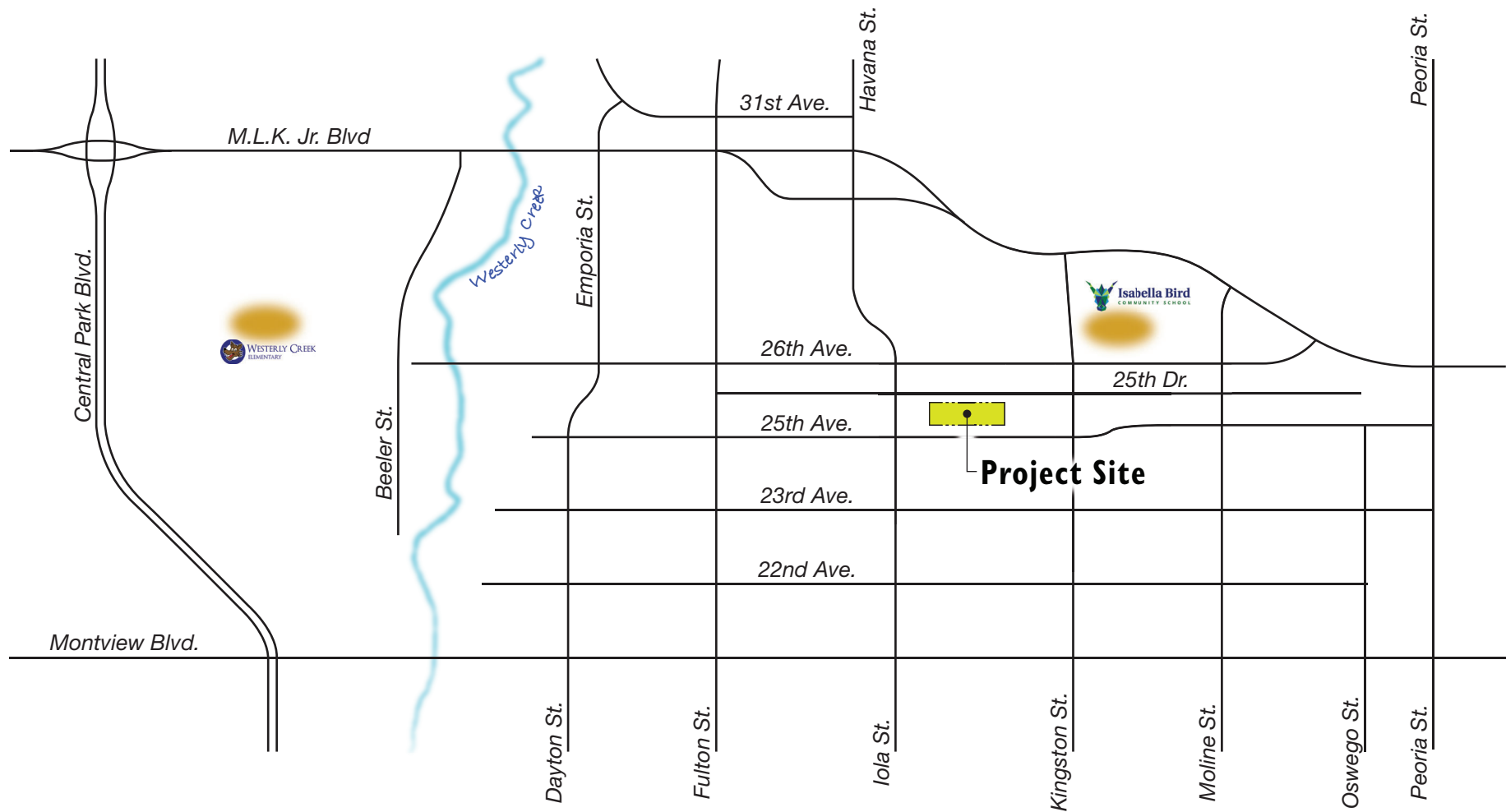
Table 1. ITE Trip Generation Rates and Equations

Land Use	ITE Code	Unit	Daily	Peak	Equations & Rates	Distributions	
						In	Out
Multifamily Housing (Mid-Rise)	221	DU	T=4.77*X-46.46	AM	T=0.44*X-11.61	23%	77%
				PM	T=0.39*X+0.34	61%	39%
DU = Dwelling Units							

Table 2. 13th Avenue and Yosemite Street Multifamily Trip Generation

Land Use (Trip Generation Category)	Quantity	Daily Vehicle Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Multifamily Mid-Rise (#221)	75 DUs	311	5	16	21	18	12	30

As shown in **Table 2**, the site is anticipated to generate approximately 311 daily vehicle-trips to the roadway network, including 21 vehicle-trips during the AM peak and 30 vehicle-trips during the PM peak. Given the relatively low trip generation, it is not anticipated that the site would have any meaningful impact on the nearby roadway network or intersection operations.





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Trip Distribution

FHU used the volume data provided by the Denver Regional Council of Governments along 25th east of Iola Street, immediately south of the site, to develop the anticipated trip distribution of the site. On Tuesday and Wednesday June 14 and 15 of 2022 daily directional count data was collected. This data indicates that during the AM peak hours that traffic adjacent to the site is heavier westbound accounting for approximately 70 percent of traffic while the PM peak hours see relatively balanced traffic between the eastbound and westbound directions. Based upon these data points it is believed that the distribution from the site would be an average of the AM and PM peak hours which results in 55 percent of the traffic to/from the site will come from the west and 45 percent of the traffic to/from the site will come from the east.

Conclusions

The study resulted in the following conclusions:

- The projected trip generation of the proposed 75-unit multifamily development is 311 daily trips, with 21 and 30 occurring in the AM and PM peak hours, respectively
- It is not anticipated that any additional off-site roadway improvements will be needed as a result of the relatively minor trip generating potential of the site.
- Trip distribution onto the access points onto 25th Avenue are anticipated to be distributed 55 percent to the west and 45 percent to the east.

Please let me know if you have any questions about this letter or need any additional information.

Sincerely,

FELSBURG HOLT & ULLEVIG



Philip Dunham, PE, POTE
Transportation Engineer

Attachments:

25th Avenue Count Data

Count Location: 25TH AVE: e/o Iola St

<u>Date</u> <u>Count</u>	<u>Hour</u>	<u>EB</u>	<u>WB</u>
14-Jun-22	01	8	6
14-Jun-22	02	6	3
14-Jun-22	03	3	5
14-Jun-22	04	5	4
14-Jun-22	05	6	13
14-Jun-22	06	20	42
14-Jun-22	07	27	88
14-Jun-22	08	43	88
14-Jun-22	09	59	94
14-Jun-22	10	45	44
14-Jun-22	11	61	83
14-Jun-22	12	49	69
14-Jun-22	13	74	53
14-Jun-22	14	60	63
14-Jun-22	15	89	43
14-Jun-22	16	99	62
14-Jun-22	17	92	81
14-Jun-22	18	91	103
14-Jun-22	19	78	117
14-Jun-22	20	108	50
14-Jun-22	21	58	44
14-Jun-22	22	52	25
14-Jun-22	23	25	18
14-Jun-22	24	9	13

15-Jun-22	01	11	6
15-Jun-22	02	8	5
15-Jun-22	03	2	4
15-Jun-22	04	3	5
15-Jun-22	05	6	10
15-Jun-22	06	25	51
15-Jun-22	07	34	77
15-Jun-22	08	40	95
15-Jun-22	09	62	74
15-Jun-22	10	45	61
15-Jun-22	11	47	67
15-Jun-22	12	72	76
15-Jun-22	13	64	52
15-Jun-22	14	49	55
15-Jun-22	15	76	48
15-Jun-22	16	88	72
15-Jun-22	17	97	70
15-Jun-22	18	92	102
15-Jun-22	19	60	70
15-Jun-22	20	66	66
15-Jun-22	21	64	50
15-Jun-22	22	58	34
15-Jun-22	23	29	24
15-Jun-22	24	17	6