Kimley»Horn

MEMORANDUM

To: James Kelly, PE, City of Arlington Public Works Director

From: Brad Lincoln, PE

Subject: Grandview Apple Development – Parking Analysis

Date: October 31, 2022

Project: 090222246

Kimley-Horn and Associates, Inc. has been retained to provide an analysis to address the parking proposed for the Grandview Apple development. The site is generally located in the northeast corner of 67th Avenue NE at Woodlands Way. The Grandview Apple development is proposed to consist of 143 parking spaces. The site is proposed to consist of 102 residential units with the following mix of units:

- Studio – 39 units
- 1-Bedroom – 42 units
- 2-Bedroom – 21 units

The development is also proposed to include 8,990 square-feet (SF) or commercial space.

Brad Lincoln, responsible for this memorandum, is a licensed professional engineer (Civil) in the State of Washington and member of the Washington State section of ITE.

City of Arlington Parking Calculations

The City of Arlington Mixed-Use Development Regulations identify parking guidelines for residential and commercial uses. The parking guidelines identify the following parking rates:

- Studio/1-Bedroom Units – 1.25 spaces per unit plus 1 space for every 4 units
- 2-Bedroom Units – 2.25 spaces per unit plus 1 space for every 4 units
- Commercial Uses – 2 spaces per 1,000 SF

The Mixed-Use Development Regulations also identify that an adjustment can be made based on shared parking. That adjustment can range between 1.2 for residential and retail uses and 1.4 for residential and office uses. The parking using the Mixed-Use Development Regulations is summarized in Table 1.

Table 1: Parking Calculations - Mixed-Use Development Regulations

Use	Size	Rate	Additional	Spaces
Studio/1-Bedroom	81 units	1.25/unit	1/4 units	122
2-Bedroom	21 units	2.25/unit	1/4 units	53
Commercial	8,990 SF	2/1,000 SF	---	18
			Total without Adjustment	193
			Total with Retail Adjustment (1.2)	161
			Total with Office Adjustment (1.4)	138

The Mixed-Use Development Regulations identify a parking of between 138 and 161 spaces. The 138 spaces using the office adjustment would be within the proposed parking supply, but the 161 spaces using the retail adjustment would be 18 spaces over the proposed parking supply.

Institute of Transportation Engineers Park Calculations

The parking for the Grandview Apple development was also evaluated using parking data published by the Institute of Transportation Engineers (ITE) in *Parking Generation Manual, 5th Edition*. There is ITE data based on the number of bedrooms and the number of units. It is important to note that the ITE parking generation data for retail is nearly identical to the City of Arlington rate of 2 spaces per 1,000 SF. The main difference is therefore the parking calculations for the residential units. The parking calculations using the ITE data is summarized in Table 2.

Table 2: Parking Calculations - Mixed-Use Development Regulations

	Size		Parking per Unit		Parking per Bedroom	
Use	**Units**	**Bedrooms**	**Rate**	**Spaces**	**Rate**	**Spaces**
Studio/1-Bedroom	81 units	81	1.21/Unit	98	0.66/Bedroom	53
2-Bedroom	21 units	42	1.21/Unit	25	0.66/Bedroom	28
Commercial	8,990 SF	2/1,000 SF	2/1,000 SF	18	2/1,000 SF	18
TOTAL			**---**	**141**	**---**	**99**

The ITE parking data shows a demand of between 99 spaces and 141 spaces.

Parking Reduction Request

The parking analysis shows that the 143 spaces that are proposed will meet the City of Arlington Mixed-Use Development Regulations using the 1.4 adjustment factor and meets the ITE data based on the number of units and the number of bedrooms. The City of Arlington Mixed-Use Development Regulations provide the Public Works Director with the ability to reduce the required number of parking spaces. The data provided in this memorandum shows that the parking demand for the site is likely to be 143 spaces or less and this memorandum should serve as a request to the Public Works Director to evaluate a reduced parking supply for the Grandview Apple development.

Attachments

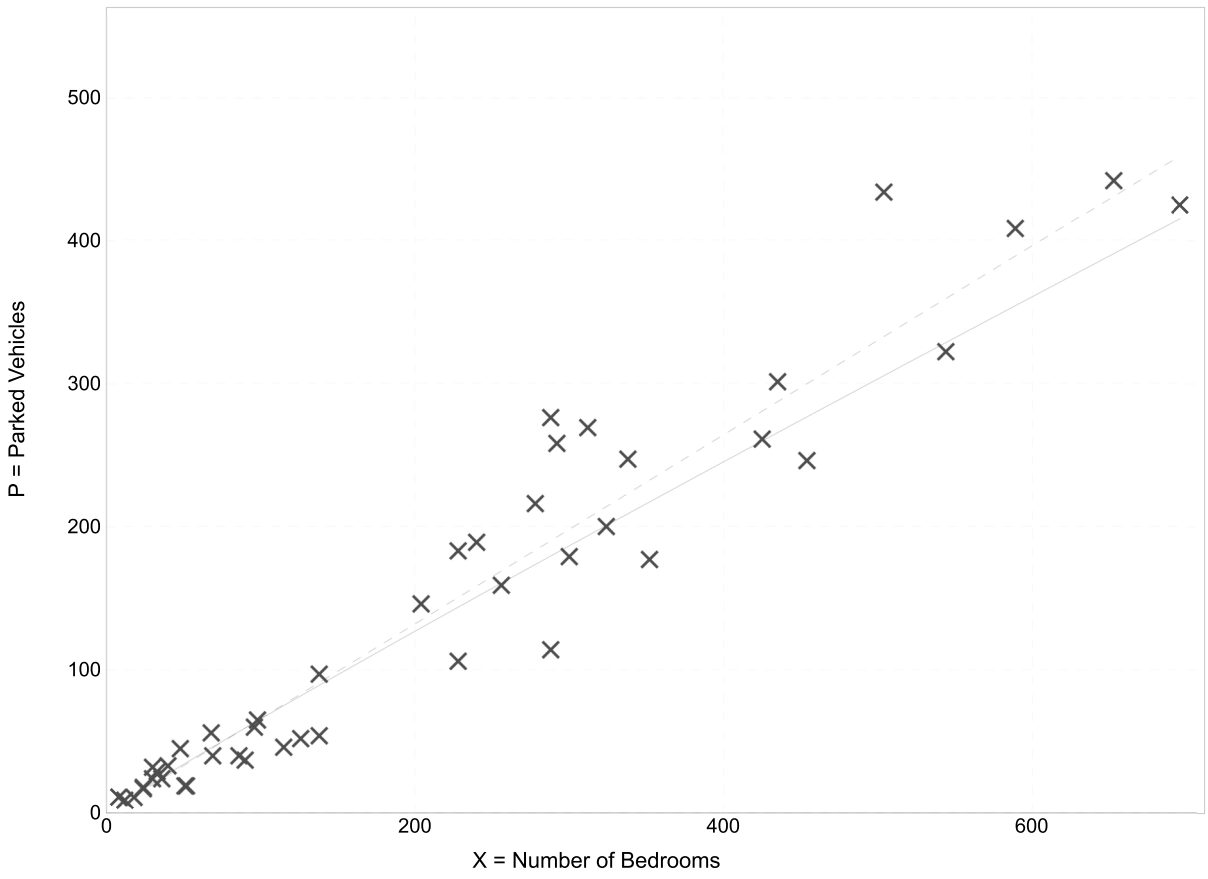
Multifamily Housing (Low-Rise)
(220)

Peak Period Parking Demand vs: **Bedrooms**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban (no nearby rail transit)**
Peak Period of Parking Demand: **11:00 p.m. - 6:00 a.m.**
Number of Studies: 45
Avg. Num. of Bedrooms: 215

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.66	0.37 - 1.38	0.61 / 0.86	0.62 - 0.70	0.15 (23%)

Data Plot and Equation

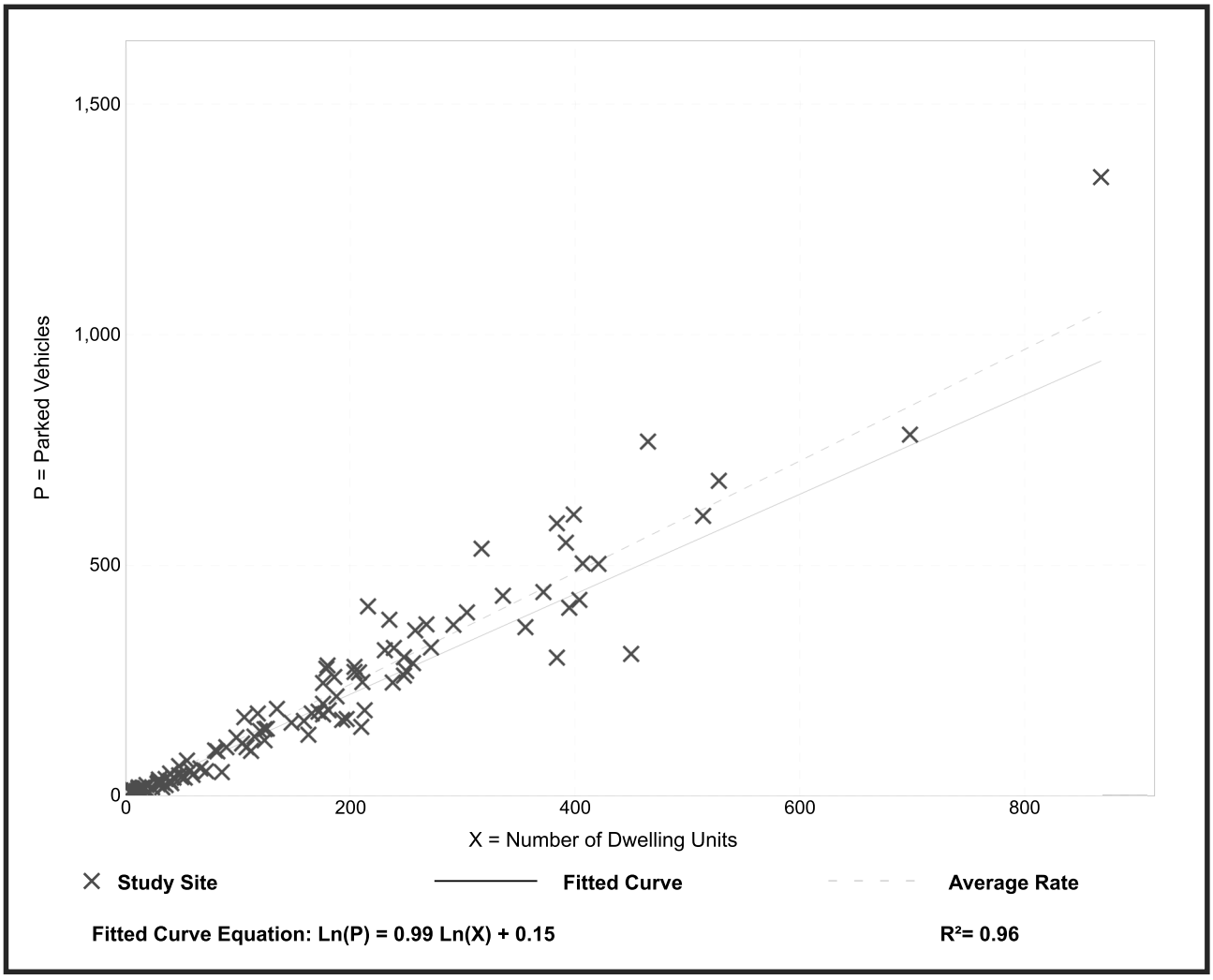


Fitted Curve Equation: Ln(P) = 0.95 Ln(X) - 0.19 **R^2= 0.93**

Multifamily Housing (Low-Rise)
(220)

Peak Period Parking Demand vs: **Dwelling Units**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban (no nearby rail transit)**
Peak Period of Parking Demand: **11:00 p.m. - 6:00 a.m.**
Number of Studies: 119
Avg. Num. of Dwelling Units: 156

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.21	0.58 - 2.50	1.03 / 1.52	1.16 - 1.26	0.27 (22%)

Data Plot and Equation