

MEMORANDUM

DATE: February 20, 2020

TO: David Ratliff, Vice President
DevCo., Inc.

FROM: Michael Read, PE, Principal
TENW

SUBJECT: Parking Analysis for Landmark Apartments
TENW Project No. 3703

This memorandum documents an evaluation of parking demand of the proposed mixed use project known as *Landmark Apartments* that is a proposed mixed use project located just south of S 330th Street along either side of the 13th Avenue S undeveloped right-of-way in Federal Way. The proposed project consists of constructing 231 residential units, 3,733 square-feet of leasable floor area in specialty retail use, an 10,222 square-foot on-site day care center for residents and the general public, and an on-site parking supply of 479 stalls. Of the on-site parking supply, 47 stalls would be designated for “retail and day care center use only” during daytime/early evening hours and 432 would be dedicated only to residential uses. This analysis include parking surveys conducted at similar residential sites that contain a significant portion of 3-5 bedroom units as well as a site that included mixed use commercial retail.

Federal Way Code Parking Requirements

Federal Way Revised Code (FWRC) 19.205.040, 19.195.090, and 19.240.070 identifies minimum off-street parking requirements for proposed multifamily residential, day care use, and specialty retail uses. These include 1.5 stalls per one-bedroom dwelling unit (62 units) and 2.0 stalls per 2 or more bedroom units for multifamily residential (169 units), 1 stall per 300 square-feet in gross floor area of retail spaces, and 1 stall per 300 square-feet of day care center uses. Strict application of these minimum parking requirements would result in 431 stalls for residential uses, 13 stalls for retail, and 34 stalls for day care uses, totaling 478 stalls. Proposed off-street parking supply in total is 479 stalls, 1 stall more than the minimum code requirement.

FWRC 19.130.080 however, contains provisions for reductions in the requirement for off-street parking based upon demand studies, shared use potential, and site incentives or measures to reduce automobile utilization. The following paragraphs outline national and local peak parking demand rates and their applicability to the project.

Shared Parking, Second Edition, 2009, published by the Urban Land Institute, has published time of day factors of parking demand for various land uses. Peak demand for residential parking occurs after 7:00 p.m., while demand for typical strip commercial retail falls off dramatically by 6:00 p.m. (for typical commercial retail, *Shared Parking* indicates parking demand at 55 percent of peak after 7:00 pm). For evaluation purposes, a 60 percent utilization demand for specialty retail uses was assumed for shared parking potential after 7:00 pm when residential uses begin to peak.

Estimated Demand for Parking

Using the latest edition of *Parking Generation*, 5th Edition, 2019, as published by the Institute of Transportation Engineers (ITE), observed peak parking generation rates for Multifamily Housing (Land Use Code: 221), Shopping Center (Land Use Code: 820), and Day Care Center (Land Use Code: 565) were reviewed to estimate peak parking demand at the proposed *Landmark Apartments* project. Parking demand rates documented by ITE represent the latest information on parking generation and are applied as standard practice in evaluating demand for many different types of land uses.

Table 1 contains a summary of peak demand estimated using ITE rates and compares total proposed supply. As shown, the proposed parking supply of 479 stalls is forecast to exceed peak demand (334 stalls) by 145 stalls. The peak demand assumes peak utilization of the individual on-site land uses occur simultaneously and no shared parking occurs between on-site retail and residential uses. Based on this conservative parking demand analysis (assuming no shared use), peak parking demand utilization of no parking deficit or impact would occur with the proposed on-site parking supply.

Table 1: Landmark Apartments – ITE Parking Demand Estimates

Land Use	Size	ITE Parking Rate ¹	Parking Demand
		<i>Proposed Supply</i>	<i>479 stalls</i>
Multifamily Housing (ITE Land Use Code 221)	231 DU	(1.34 X DU) -8.73	301 stalls
Day Care Center (ITE Land Use Code 565)	10,222 SF	2.45 X 1,000 SF	25 stalls
Shopping Center (ITE Land Use Code 820)	3,733 SF	1.95 X 1,000 SF	8 stalls
		Subtotal Demand	334 stalls
		+ Surplus/(- Deficit)	+ 145 stalls

Source: Parking Generation, 5th Edition, ITE, 2019.

Local Parking Surveys

In addition to national parking standards, parking generation rates of local apartment complexes were also included in this evaluation. In 2002, TENW conducted parking counts at five separate residential apartment complexes at five separate locations in south Snohomish County. Subsequent to these studies, TENW conducted similar surveys at four additional apartment complexes developed and operated by DevCo, Inc. throughout the Puget Sound region, including three sites within King County. These surveys are considered applicable to the proposed site as they contain representative suburban locations of similar apartment complexes; over half operated by DevCo, Inc. Surveys were collected on both weekday and weekend periods during typical peak residential demands during daytime and evening periods.

As provided in **Attachment 1**, peak parking demand surveys at nine established residential projects averaged 1.31 stalls per dwelling unit on peak weekend evenings, while available supply averaged 1.67 stalls per dwelling unit. Of those DevCo properties surveyed, three of the properties (Heatherwood, Creston Point, and The Seasons) all have 4-bedroom compositions that average 18 percent of all units (**Attachment 2**). The 4/5-bedroom unit composition of the proposed *Landmark Apartments* project is 18

percent of all units. Of these complexes, the peak weekday observed parking rates averaged 1.28 stalls per dwelling unit, slightly below the overall average of all complexes included in the survey.

It should be noted that these surveys factored observed peak parking demand to account for unit occupancy and unknown occupancy of garage utilization during the survey days. Observed peak utilization rates on the weekend (Sunday morning before 6 a.m.) were found to be slightly higher, averaging 1.44 stalls per unit. As the proposed dedicated parking supply during peak demand periods at the *Landmark Apartments* project for residential apartments is 1.87 stalls per dwelling unit, this supply level exceeds these observed local rates which have been factored conservatively for both occupancy and garage utilization.

When applying local parking demand rates of similar multifamily residential uses to the peak parking demand analysis observed on the weekend (i.e., 1.44 stalls per dwelling unit), total site demand for residential parking of the *Landmark Apartments* is estimated at approximately 333 stalls; higher than peak national ITE parking demand rates (estimated at 301 stalls). This peak level however, is less than the available proposed supply for residential uses of during peak evening hours of 479 stalls (432 + 47 shared stalls = 479 stalls) after 9 p.m. and before 6 a.m. when on-site retail and day care center uses would be closed.

Shared Parking Potential

Table 2 contains a refined estimate of total peak parking demand estimated using a combination of locally observed (for residential uses) and ITE rates (for retail uses), shared parking potential between proposed uses with peak time of day factors, and compares this total demand with proposed supply. As shown, the proposed parking supply of 479 stalls is forecast to exceed peak parking demand (315 stalls) of the site as a whole by 164 stalls. This analysis is conservative as it assumes the peak residential demand that occurs after 9 p.m. on typical weekdays coincides with retail demand occurring earlier in the evening. With the above adjustments considered, estimated peak demand for on-site parking is approximately 66 percent, leaving adequate excess supply for all proposed land uses.

Table 2: Landmark Apartments – Shared Parking Analysis

Land Use	Size	Parking Rate Assumption ¹	Parking Demand
		<i>Proposed Supply</i>	<i>479 stalls</i>
Mid-Rise Apartments (ITE Land Use Code 221)	231 DU	Observed Local Rate of 1.31 stalls/DU	303 stalls
Day Care Center (ITE Land Use Code 565)	10,222 SF	Demand at 7pm (25% of peak)	7 stalls
ITE LU 830 Shopping Center	3,733 SF	Demand at 7pm (60% of peak) ²	5 stalls
Subtotal Demand			315 stalls
+ Surplus/(- Deficit)			+ 164 stalls

1 – Source: TENW Parking Surveys Commissioned by DevCo, Inc., from 2002 to 2013 during peak weekday periods.

2 – Shared Parking, 2nd Edition, ULI, Table 2-5, Recommended Time of Day Factors for Weekdays is 55 percent. For evaluation TENW applied a 60% of peak demand assumption for specialty retail use parking demand.

Shared Parking Potential by Development Area

Given the “separation” of the development by a public right-of-way that would be developed as part of the project (i.e., 13th Place S), a review of parking demand between the “west” and “east” parcel was also performed. As shown in **Table 3**, when considering the separate development areas independently, all parking demand can be met on-site. As shown, the proposed parking supply of 224 stalls on the western parcels is estimated to have a surplus of 98 stalls while the parking supply of 255 stalls on the eastern parcels is estimated to have a surplus of 66 stalls.

Table 2: Landmark Apartments by Development Area- Shared Parking Analysis

Land Use	Size	Parking Rate Assumption ¹	Parking Demand
Western Parcels		Proposed Supply	88+136=224 stalls
Mid-Rise Apartments (ITE Land Use Code 221)	89 DU	Observed Local Rate of 1.31 stalls/DU	117 stalls
Day Care Center (ITE Land Use Code 565)	10,222 SF	Demand at 7pm (25% of peak)	7 stalls
ITE LU 830 Shopping Center	1,644 SF	Demand at 7pm (60% of peak) ²	2 stalls
		Subtotal Demand	126 stalls
		+ Surplus/(- Deficit)	+ 98 stalls
Land Use	Size	Parking Rate Assumption ¹	Parking Demand
Eastern Parcels		Proposed Supply	130+125=255 stalls
Mid-Rise Apartments (ITE Land Use Code 221)	142 DU	Observed Local Rate of 1.31 stalls/DU	186 stalls
ITE LU 830 Shopping Center	2,089 SF	Demand at 7pm (60% of peak) ²	3 stalls
		Subtotal Demand	189 stalls
		+ Surplus/(- Deficit)	+ 66 stalls

1 – Source: TENW Parking Surveys Commissioned by DevCo, Inc., from 2002 to 2013 during peak weekday periods.

2 – Shared Parking, 2nd Edition, ULI, Table 2-5, Recommended Time of Day Factors for Weekdays is 55 percent. For evaluation TENW applied a 60% of peak demand assumption for specialty retail use parking demand.

Transit Availability, Similar Properties, and Other Automobile Reduction Measures

Although not required by Federal Way Code, the proposed *Landmark Apartments* project proposes to implement a Transportation Demand Management (TDM) plan to reduce the reliance on vehicle use and provide incentives for alternative means of travel. These programs and site amenities have been constructed and implemented at many of DevCo, Inc., properties throughout Washington State, including many sites within the City of Federal Way. These measures would include on-site design features, an on-site trip reduction coordinator for vanpooling/carpooling services and transit information residents, and an on-site commuter center. Other properties that have been developed, owned, and are managed by the

applicant average parking supply of 1.63 stalls per dwelling unit (see **Attachment 3**). These existing residential properties all have similar bedroom mixes, market characteristics, and do not generate off-site parking demand.

Furthermore, the availability of quality local and regional transit services within the site vicinity provides an opportunity for residents, employees, customers, and guests a wide variety of options without the use of vehicle travel. Daily, bi-directional fixed route transit service with headways averaging less than 20 minutes are provided along Pacific Highway South (SR 99). Of the three different fixed bus routes that serve the site, three separate routes provide quality connections between the site and the Federal Way Transit Center (S 320th Street) where regional routes to Seattle, Bellevue and provide, as well as direct service to key destinations in Tacoma.

Conclusion

As shown in **Table 1**, under the proposed parking reductions allowed under FWRC, the applicant proposes to dedicate 2.08 stalls per dwelling unit for residential uses when retail demand is not present and peak residential demand occurs (late evening/overnight hours). As both national and local parking generation rates for similar residential apartment uses in suburban areas, peak demand of no more than 1.31 stalls per unit was observed on weekdays, and as shared use between retail stalls and residential stalls would occur, a forecasted peak demand of 315 stalls for the site as a whole would result in a 66 percent peak utilization rate. While increased demand was observed during peak evening hours on the weekend, these observations were taken prior to 6 a.m. on Sunday, and would not coincide with retail demand. During these periods, an estimated surplus of 146 stalls reserved for residential uses would occur. Therefore, the analysis of parking demand for the proposed *Landmark Apartments* project concluded the proposed supply of 479 stalls would exceed forecasted demand, provide adequate surplus of on-site parking during peak periods, and a reduction of FWRC 19.130.080 (2) is justified.

If you have any questions regarding the information presented in this memo, please call me at (206) 361-7333 x 101 or mikeread@tenw.com.

Attachments: 1. Local Parking Surveys
 2. DevCo, Inc. Bedroom Composition at Existing Complexes
 3. Built Parking Supply Ratios of Similar Complexes

ATTACHMENTS

Local Parking Surveys

Parking Demand Studies of Residential Apartment Complexes in Seattle Metro Area

(Commissioned by DevCo, Inc.)

Demand assumes 100% occupancy of all units and full garage parking stalls (if available at the site) as a conservative approach.

Apartment Complex	Survey Date	Units	Built Parking Stalls Parking Ratio	Location	Parked Vehicles	
Peak Weekday Evening (8:00 pm - 9:00 pm)	Pacific Park	177	291 1.64	23231 Highway 99, Edmonds	197 68%	
	Whispering Pine	240	480 2.00	18201 52nd Ave W, Lynnwood	260 54%	
	On the Green	558	835 1.50	12303 Harbour Pointe, Mukilteo	740 89%	
	Mill Pointe	193	309 1.60	2424 132nd Street SE, Mill Creek	295 95%	
	Parkwood	240	435 1.81	15520 Mill Creek Blvd, Mill Creek	369 85%	
	Heatherwood	Dec-2006	266	509 1.91	13510 North Creek Drive, Mill Creek	340 67%
	Discovery West	Sep-2013	303	482 1.59	942 Discovery Circle NE, Issaquah	431 89%
	Creston Point	Sep-2013	476	698 1.47	13445 Martin Luther King Way S, Seattle	605 87%
	The Seasons	Sep-2013	332	510 1.54	12722 SE 312th St, Auburn	426 84%
	Study Average Peak Weekday Evening		309	505 1.67	<i>Average Peak Parking Demand</i> <i>Average Peak Parking Utilization</i> <i>Average Peak Ratio (stalls/unit)</i>	407 80% 1.31
Peak Weekend Morning (6:00 am - 7:00 am)	Pacific Park	177	291 1.64	23231 Highway 99, Edmonds	209 72%	
	Whispering Pine	240	480 2.00	18201 52nd Ave W, Lynnwood	283 59%	
	On the Green	558	835 1.50	12303 Harbour Pointe, Mukilteo	829 99%	
	Mill Pointe	193	309 1.60	2424 132nd Street SE, Mill Creek	287 93%	
	Parkwood	240	435 1.8	15520 Mill Creek Blvd, Mill Creek	360 83%	
	Heatherwood	Dec-2006	266	509 1.91	13510 North Creek Drive, Mill Creek	432 85%
	Discovery West	Sep-2013	303	482 1.59	942 Discovery Circle NE, Issaquah	480 100%
	Creston Point	Sep-2013	476	698 1.47	13445 Martin Luther King Way S, Seattle	666 95%
	The Seasons	Sep-2013	332	510 1.54	12722 SE 312th St, Auburn	463 91%
	Study Average Peak Weekend Morning		309	505 1.67	<i>Average Peak Parking Demand</i> <i>Average Peak Parking Utilization</i> <i>Average Peak Ratio (stalls/unit)</i>	445 86% 1.44

1 - Includes surface stalls, carports, and garages.

DevCo Properties Bedroom Composition

Puget Sound Properties - Unit Compositions..xls

Property Name	City	# Units	# Bedrooms Per Unit	# Units per Type	4/5 Bedroom Composition
Cedar Ridge	Auburn	48	2	16	
			3	21	
			4	11	23%
Creston Point	Seattle	476	1	131	
			2	135	
			3	100	
			4	110	23%
Discovery Heights	Issaquah	360	1	94	
			2	153	
			3	113	0%
District	Bothell	228	1	20	
			2	84	
			3	72	
			4	40	
			5	12	23%
Eastwood Square	Bellevue	48	2	34	
			3	14	0%
Heatherwood	Mill Creek	266	1	83	
			2	84	
			3	52	
			4	47	18%
Mill Pointe	Everett	193	1	61	
			2	69	
			3	63	0%
Park Place	Kent	51	2	16	
			3	23	
			4	12	24%
Seasons at Lea Hill ¹	Auburn	332	studio	4	
			1	98	
			2	114	
			3	68	
			4	48	14%
Stonebrook	Renton	196	1	58	
			2	60	
			3	42	
			4	36	18%
Willow Tree Grove	Bothell	181	2	72	
			3	46	
			4	63	35%

Built Puget Sound Properties (Average 4/5 Bedroom Composition of Total Site Units)	22%
Surveyed Sites from Parking Studies (Average 4/5 Bedroom Composition of Total Units)	18%

Source: HNN Properties, February 2014.

1 - In addition to the residential apartments, this complex also includes approximately 60,000 square feet of commercial retail.

Built Parking Supply Ratios of Similar Complexes

HNN Properties - Housing Developments in Washington State HNN Entities Parking Info

Property	Location	# Units	Garages	Carports	Surface Open	Total	Parking Supply Ratio
Beacon Manor	Ferndale	51	0	0	75	75	1.47
Cedar Ridge	Auburn	48	0	0	88	88	1.83
Creston Point	Renton	476	120	0	573	693	1.46
Discovery Phase I	Issaquah	253	92	13	282	387	1.53
Eastwood Square	Bellevue	48	0	0	91	91	1.90
Heatherwood	Mill Creek	266	17	0	406	423	1.59
Kent Manor	Kennewick	51	0	0	98	98	1.92
Mill Pointe	Everett	193	77	42	180	299	1.55
Northwood	Pullman	51	0	0	88	88	1.73
Outlook	Pullman	51	10	0	61	71	1.39
Park Place	Kent	51	0	0	92	92	1.80
Regency Park	Bellingham	228	6	51	301	358	1.57
The Seasons	Auburn	332	50	0	521	571	1.72
Springfield Meadows	Vancouver	290	93	82	274	449	1.55
Stonebrook	Renton	196	10	30	258	298	1.52
Willow Tree*	Bothell	180	25	24	218	267	1.48

Average parking supply provided at HNN Developments	1.63	stalls/unit
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Source: HNN Properties, January 2013.