CHAPTER 8: PARKING

8.1 Introduction

This chapter describes parking in the Missing Link study area. The Parking Discipline Report (Parametrix, 2016) describes in detail the methods used to identify and evaluate parking in the study area. Analysts relied on the following three recent parking studies to determine the on-street and off-street parking conditions in the study area in 2015:

- The 2015 Ballard Parking Study—on-street parking (SDOT, 2015a);
- The 2015 BGT Missing Link Parking Study—on-street and off-street parking (IDAX, 2015); and
- The Ballard Off-street Parking Study, July 2014—off-street parking (SDOT, 2014).

These three studies were used because they were completed recently and cover the entire study area.

8.2 Affected Environment

The study area for the Missing Link parking analysis is the area bounded by the Ship Canal to the south, 9th Ave NW to the east, NW 50th St/Tallman Ave NW/NW 58th St to the north, and 32nd Ave NW to the west (Figure 8-1). For the portions of the study area bounded by a street, the study area includes the entire street. This area, which is roughly two blocks from the most peripheral of the Build Alternatives, is the distance most people would be willing to walk to their destinations after parking, accounting for such factors as the trip purpose, topography, the walking environment, and available time.

The affected environment consists of the parking supply, parking occupancy, and parking utilization in the study area in 2015. These terms are defined as follows:

- **Parking supply** comprises all publicly available on-street and off-street parking spaces in the study area, whether publicly or privately owned and whether available at no cost or for a fee.
- **Parking occupancy** is the number of parking spaces that are occupied at a given time.
- **Parking utilization** is the percentage of the parking supply that is being occupied at a given time.

Parking supply, occupancy, and utilization vary throughout the study area and fluctuate depending on time of day. Data collected during any weekday are assumed to reflect typical weekday parking. Data were collected on weekdays as opposed to weekends, because weekdays capture both occupancy of parking spaces by daytime employers and evening retail businesses. Although weekend counts were not conducted, they are expected to be similar to weekday counts over the larger study area, with fluctuations occurring in some parts of the study area (e.g., weekend utilization higher in the central commercial portion and lower in industrial areas than weekdays).

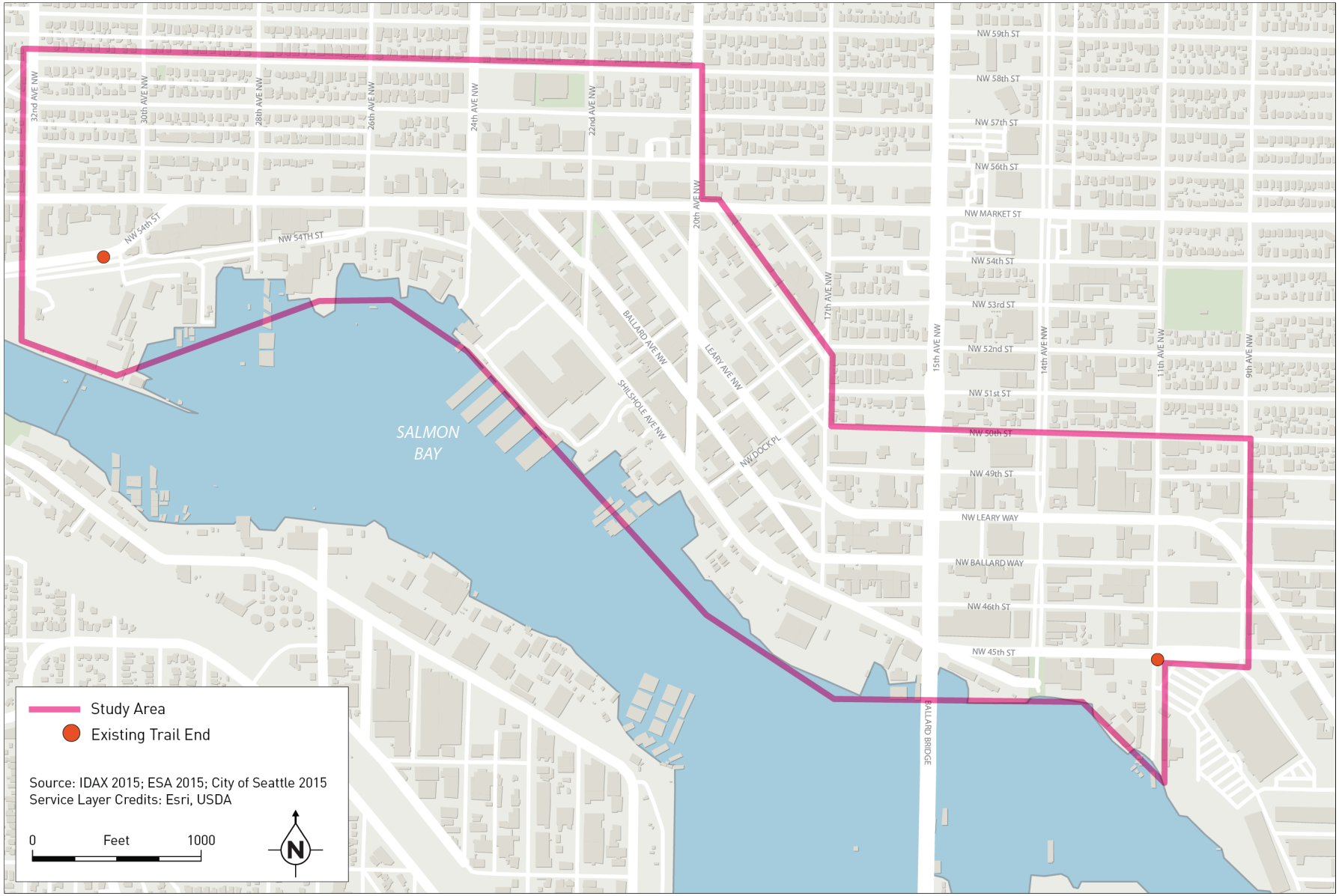


Figure 8-1. Parking Study Area

8.2.1 **Parking Supply**

The study area contains different types of parking supply. This analysis considered the following types of parking:

- On-street parking spaces;
- Off-street parking spaces available for public use; and
- On-street passenger and commercial loading spaces.

On-street and Off-street Parking

In the study area, on-street parking varies from short-term metered parking with 2-hour limits to unmetered spaces with no time limits. All on-street parking spaces in the study area, whether paid or unpaid, were included in the parking analysis.

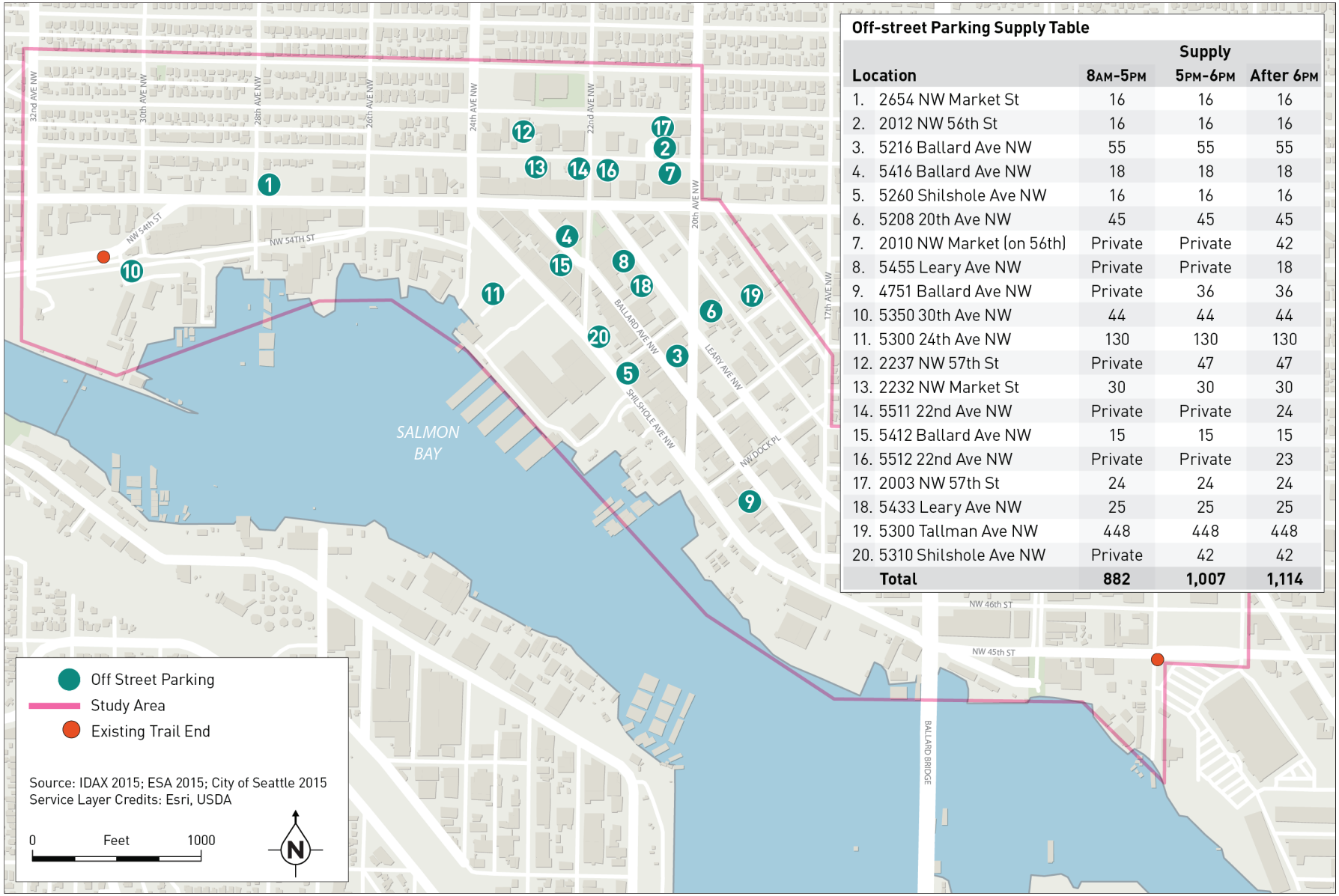
Unstriped areas of City-owned right-of-way along some blocks of Shilshole Ave NW have historically been used by private businesses for parking and loading, although these areas are not formally organized and have not been expressly approved or permitted by the City. The occupancy of parked vehicles depends on the efficiency of the drivers parking on a particular day. In some areas along Shilshole Ave NW, vehicles could be perpendicularly parked on one day and aligned in a parallel manner the next. These unpermitted spaces were counted as they are currently used, whether it is parallel, multiple parallel rows, perpendicular, or angled parking.

NW 54th St between 26th Ave NW and 30th Ave NW is not identified as a legal City street. While people do park on this section of NW 54th St, the parking was not counted as available public parking supply because it is not an officially sanctioned City street or public parking area. A total of 20 off-street parking lots and garages were included in the parking analysis. Users of these off-street lots available for public use are generally required to pay lot-specific rates that vary by parking duration. The number of off-street parking lots and garages in the study area can change quickly, as new lots open and others close due to various factors, including new development displacing lots or including new lots. This analysis provides the most accurate estimation of off-street parking at time of writing.

A total of 3,107 on-street parking spaces and a minimum of 882 off-street parking spaces are available for public use in the study area on weekdays (Table 8-1). The off-street parking supply varies throughout the day, with some off-street lots only open to the public in the evening. The off-street supply from 8 AM to 5 PM is 882 spaces, from 5 PM to 6 PM is 1,007 spaces, and after 6 PM is 1,114 spaces. To be conservative, the minimum off-street parking supply count of 882 is used in Table 8-1. Figure 8-2 shows the on-street parking supply for each block face in the study area, and Figure 8-3 shows the off-street parking supply for each lot and garage in the study area.

The weekend on-street parking supply can be affected by events such as the Ballard Farmers Market, which is held every Sunday on one block of Ballard Ave NW between NW Vernon Pl and 22nd Ave NW. No on-street parking is allowed on this block between 6 AM and 5 PM, but all of the paid parking blocks in central Ballard are free on Sundays. The weekend off-street parking supply is assumed to be similar to the evening weekday supply.

Figure 8-2. On-Street Parking Supply



Off-street Parking Supply Table

Location	Supply 8AM-5PM	Supply 5PM-6PM	Supply After 6PM
1. 2654 NW Market St	16	16	16
2. 2012 NW 56th St	16	16	16
3. 5216 Ballard Ave NW	55	55	55
4. 5416 Ballard Ave NW	18	18	18
5. 5260 Shilshole Ave NW	16	16	16
6. 5208 20th Ave NW	45	45	45
7. 2010 NW Market (on 56th)	Private	Private	42
8. 5455 Leary Ave NW	Private	Private	18
9. 4751 Ballard Ave NW	Private	36	36
10. 5350 30th Ave NW	44	44	44
11. 5300 24th Ave NW	130	130	130
12. 2237 NW 57th St	Private	47	47
13. 2232 NW Market St	30	30	30
14. 5511 22nd Ave NW	Private	Private	24
15. 5412 Ballard Ave NW	15	15	15
16. 5512 22nd Ave NW	Private	Private	23
17. 2003 NW 57th St	24	24	24
18. 5433 Leary Ave NW	25	25	25
19. 5300 Tallman Ave NW	448	448	448
20. 5310 Shilshole Ave NW	Private	42	42
Total	**882**	**1,007**	**1,114**

Figure 8-3. Off-Street Parking Supply

Table 8-1. Parking Supply in Study Area

	Paid On-Street Supply[1]	*Non-Paid On-Street Supply*[2]	*Total On-Street Supply*	*Off-Street Parking Supply*[3]	*Total Parking Supply*
Number of Spaces	484	2,623	3,107	882	3,989
Percent of Total	12%	66%	78%	22%	100%

Sources:
[1] SDOT, 2015a.
[2] IDAX, 2015.
[3] SDOT, 2014; IDAX, 2015.

Loading Zone Spaces

Table 8-2 summarizes the existing loading zone spaces in the study area. In some cases, the City may post one sign for a loading zone that could accommodate multiple vehicles. Each loading zone sign was assumed to indicate one loading zone space. In total, 132 loading zone spaces are available in the study area; these spaces are relatively evenly distributed throughout the study area (Figure 8-4). Loading zone spaces are used for various purposes including commercial loading, passenger drop-off, and taxi loading.

Table 8-2. Loading Zone Spaces in Study Area

Generic Loading Zone Spaces	*Passenger Loading Zone Spaces*	*Truck-Only Loading Zone Spaces*	*Commercial Vehicle Loading Zone Spaces*	*Total Loading Zone Spaces*
82	15	32	3	132

Source: SDOT, 2015b.

8.2.2 Parking Occupancy and Utilization

Occupancy and Utilization by Time of Day

SDOT sets an on-street utilization target range of 70 to 85% for commercial and mixed-use areas. However, SDOT does not have an on-street utilization target for residential and industrial areas, where parking turnover is less important. SDOT's on-street utilization target for commercial and mixed-use areas is consistent with SMC requirements to manage paid parking areas so that one or two parking spaces are available per block face. At higher levels of utilization, it becomes difficult for a driver to find an on-street parking space. If the threshold of 85% for on-street parking utilization is exceeded, it is assumed that the motorists who would otherwise park on the street on a particular block would search farther for an on-street parking space or would use off-street parking.

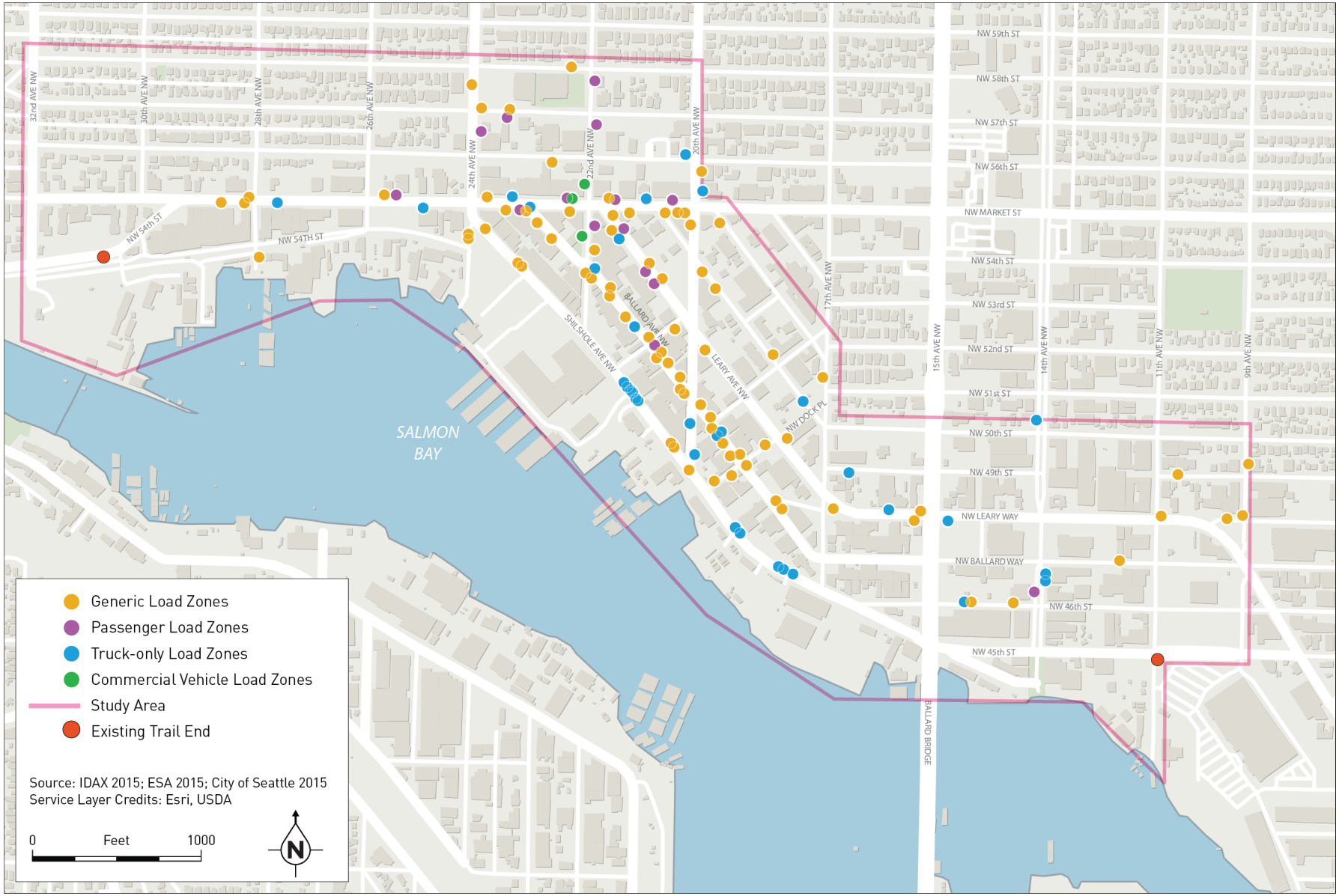


Figure 8-4. Loading Zone Spaces

Utilization data were collected during the AM and PM peak periods to capture the daily fluctuations in utilization from business-related, retail-related, and residential parking. Utilization data were collected at 8 AM, 9 AM, 3 PM, 4 PM, 5 PM, and 6 PM.

Table 8-3 summarizes the weekday on-street and off-street parking utilization observed in the study across the time periods studied for the 2015 existing conditions. On-street and off-street parking utilization are described separately below.

Although weekend counts were not conducted, they are expected to be similar to weekday counts over the larger study area, with fluctuations in some parts of the study area (e.g., weekend utilization is higher in the central commercial portion, and lower in industrial areas than weekdays).

Table 8-3. Overall On-Street Parking Utilization

Parking Type	*Parking Spaces*	*Weekday Occupancy and Utilization (%)*											
		8 AM		*9 AM*		*3 PM*		*4 PM*		*5 PM*		*6 PM*	
		Occupancy	*Utilization*	*Occupancy*	*Utilization*	*Occupancy*	*Utilization*	*Occupancy*	*Utilization*	*Occupancy*	*Utilization*	*Occupancy*	*Utilization*
Paid	484	139	29%	206	43%	323	67%	280	58%	343	71%	440	91%
Non-Paid	2,623	1,717	65%	1,788	68%	1,760	67%	1,693	65%	1,588	61%	1,579	60%
Total	3,107	1,856	60%	1,994	64%	2,083	67%	1,973	64%	1,931	62%	2,019	65%

Sources: SDOT, 2015a; IDAX, 2015.

On-Street Parking Utilization

As shown in Table 8-3, the utilization for weekday on-street parking is similar throughout the day. Major findings are as follows:

- Parking utilization for paid parking varies dramatically throughout the day and is low in the morning and very high later in the evening. Paid parking utilization is highest at 6 PM (91%) and lowest at 8 AM (29%).
- Parking utilization for non-paid parking is consistently moderate throughout the day. Non-paid parking utilization is highest at 9 AM (68%) and lowest at 6 PM (60%).

The following is a summary of on-street parking utilization for each hour evaluated.

On-street parking utilization is highest at **8 AM** in the non-paid, residential blocks of central Ballard and on the northernmost blocks of the study area. The majority of the paid parking in central Ballard has very low utilization at 8 AM. It is assumed that the main destination in the study area is the central business district and the businesses on Shilshole Ave NW. It is also assumed that the non-paid, residential parking areas in the central portion of the study area, roughly south of NW Market St and west of 15th Ave NW, and the northernmost blocks may have high utilization due to residents leaving cars there. The non-paid,

residential area in central Ballard has high utilization throughout all hours studied. West of 28th Ave NW, the residential density is lower; therefore, there is more available parking in the northwestern corner of the study area. Utilization in the southeast portion of the study area is mixed.

At **9 AM**, more of the non-paid parking in central Ballard has filled up, and some of the paid blocks also have high utilization. Some of the blocks in the northernmost portion of the study area have a decline in utilization from 8 AM to 9 AM. This could be due to some residents leaving for work outside of the study area. In the southeast portion of the study area, utilization increases slightly but is still mixed.

At **3 PM**, utilization is very different than during the morning hours studied. Utilization is still very high on the non-paid blocks in central Ballard, but by 3 PM most of the paid blocks have reached a moderate level of utilization, and some have reached over 85% utilization. Utilization on the northernmost blocks slightly increases since the morning, with the paid blocks seeing more usage.

Utilization declines slightly throughout the study area between 3 and **4 PM**. The central non-paid blocks are still highly utilized, but the paid blocks are less utilized. This could be due to some daytime workers leaving the study area and freeing up spaces for those who would have used paid blocks. The northern and southeastern portions of the study area are largely similar between 3 PM and 4 PM, with mixed utilization.

Overall utilization continues to decline slightly between 4 and **5 PM**. This could reflect more daytime workers leaving the study area for the day. At the same time, occupancy on the paid blocks increases by 13%, possibly reflecting more people coming to the central business district for evening activities and evening restaurant/bar workers coming to work. The northern and southeastern portions of the study area are largely similar between 4 PM and 5 PM, with mixed utilization.

Overall utilization for the study area increases slightly at **6 PM**, but the geographic occupancy pattern is unique at 6 PM. Occupancy for paid spaces in the central business district increases dramatically from 71 to 91%, possibly reflecting the high occupancy for evening activities in the study area. Utilization for non-paid spaces continues to decline slightly from its peak at 9 AM, possibly reflecting that many daytime workers have left the study area for the day. Utilization for the northern portion of the study area remains mixed, similar to the other hours during the day, while utilization for the southeastern portion of the study area slightly declines from 5 PM.

Off-Street Parking Utilization

Table 8-4 summarizes weekday off-street parking utilization within the study area. Utilization by time ranges from a high of 67% at 9 AM to a low of 34% at 6 PM. Overall, parking utilization is higher during the AM peak period than the PM peak period. Some lots within the study area are not open to the public at all hours of the day. When lots are not available for public use, they are indicated as “Private” in Table 8-4.

Table 8-4. Off-Street Parking Utilization

Lot/ Garage Number	*Parking Spaces*	*Weekday Occupancy and Utilization* [1]											
		8 AM		*9 AM*		*3 PM*		*4 PM*		*5 PM*		*6 PM*	
		Occupancy	*Utilization*	*Occupancy*	*Utilization*	*Occupancy*	*Utilization*	*Occupancy*	*Utilization*	*Occupancy*	*Utilization*	*Occupancy*	*Utilization*
1	16	4	26%	8	52%	12	75%	7	43%	4	27%	2	13%
2	16	6	39%	7	41%	5	31%	16	100%	16	100%	10	63%
3	55	15	28%	33	60%	24	44%	26	47%	55	100%	32	58%
4	18	7	38%	9	51%	16	89%	8	44%	11	59%	16	89%
5	16	4	27%	6	36%	10	63%	8	50%	11	67%	16	100%
6	45	7	15%	9	20%	16	36%	11	23%	14	31%	21	47%
7	42	Private	Private	Private	Private	Private	Private	Private	Private	Private	Private	13	31%
8	18	Private	Private	Private	Private	Private	Private	Private	Private	Private	Private	13	72%
9	36	Private	Private	Private	Private	Private	Private	Private	Private	11	30%	16	44%
10	44	10	23%	20	45%	29	66%	24	55%	15	34%	7	16%
11	130	28	22%	44	34%	49	38%	40	31%	27	21%	29	22%
12	47	Private	Private	Private	Private	Private	Private	Private	Private	4	9%	1	2%
13	30	6	20%	8	27%	21	70%	16	53%	14	47%	11	37%
14	24	Private	Private	Private	Private	Private	Private	Private	Private	Private	Private	16	67%
15	15	3	20%	4	27%	7	47%	6	40%	8	53%	12	80%
16	23	Private	Private	Private	Private	Private	Private	Private	Private	Private	Private	8	35%
17	24	20	83%	21	88%	16	67%	6	25%	4	17%	1	4%
18	25	7	28%	15	60%	11	44%	4	16%	10	40%	5	20%
19	448	333	74%	408	91%	302	67%	263	59%	152	34%	106	24%
20	42	Private	Private	Private	Private	Private	Private	Private	Private	28	67%	42	100%
Totals	882/ 1,007/ 1,114[2]	451	51%	592	67%	518	59%	434	49%	383	38%	377	34%

Source: IDAX, 2015; SDOT, 2014.
Note: Utilization highlighted in gray indicates that this is an estimated value, based on ratios of similar nearby lots and garages.
[1] "Private" indicates spaces that are not open for public use.
[2] Total parking spaces vary based on public availability of off-street parking lots. Numbers represent 8 AM – 5 PM/5 PM – 6 PM/After 6 PM.

Available Parking Supply

Table 8-5 shows the number of available parking spaces in the study area that are unused for weekdays during each hour of the parking study. A minimum of 1,024 on-street spaces and 290 off-street spaces are available between 8 AM and 6 PM. Overall, 3 PM has the smallest supply of available parking spaces (1,388), because both on- and off-street utilization is moderate at this time (67 and 59%, respectively).

Table 8-5. Available Parking Supply

	8 AM		*9 AM*		*3 PM*		*4 PM*		*5 PM*		*6 PM*	
	On-Street[1]	*Off-Street*[2]	*On-Street*[1]	*Off-Street*[2]	*On-Street*[1]	*Off-Street*[2]	*On-Street*[1]	*Off-Street*[2]	*On-Street*[1]	*Off-Street*[2]	*On-Street*[1]	*Off-Street*[2]
Parking Supply	3,107	882	3,107	882	3,107	882	3,107	882	3,107	1,007	3,107	1,114
Parking Occupancy (Filled Spaces)	1,856	451	1,994	592	2,083	518	1,973	434	1,931	383	2,019	377
Utilization Rate	60%	51%	64%	67%	67%	59%	64%	49%	62%	38%	65%	34%
Available Parking Supply (Unfilled Spaces)	1,251	431	1,113	290	1,024	364	1,134	448	1,176	624	1,088	737

Sources:
[1] SDOT, 2015a; IDAX, 2015.
[2] IDAX, 2015; SDOT, 2014.

Note: Utilization highlighted in gray indicates that this is an estimated value, based on ratios of similar nearby lots and garages.

8.3 Potential Impacts

Construction impacts on parking were evaluated qualitatively because the location and amount of affected parking would change as construction progresses. The potential for temporary loss of parking is described below for each alternative, along with disruption to business access and loading areas.

The operational impacts of the Build Alternatives for parking in 2040, the design year, were evaluated using the following methods:

- A comparison of the total number of on-street and off-street parking spaces in the study area under the No Build Alternative and the Build Alternatives.
- An assessment of the parking supply under the Build Alternatives in relation to the existing parking occupancy.

8.3.1 No Build Alternative

Construction

No construction activities for the Missing Link would occur under the No Build Alternative; therefore, there would be no construction impacts.

Operation

The parking supply and loading zone spaces in the study area under the No Build Alternative are expected to remain the same as under existing (2015) conditions. Table 8-6 summarizes the expected No Build Alternative parking supply.

Table 8-6. No Build Alternative Parking Supply

	Paid On-Street Supply	*Non-Paid On-Street Supply*	*Total On-Street Supply*	*Off-Street Parking Supply*	*Total Parking Supply*
Number of Spaces	484	2,623	3,107	882	3,989
Percent of Total	12%	66%	78%	22%	100%

Occupancy of both on-street and off-street parking within the study area is expected to increase by 2040 in conjunction with population and employment growth in Ballard. Parking prices (adjusted for inflation) would also increase for both on-street and off-street parking based on this increase in occupancy. Parking supply would remain constant under the No Build Alternative. Therefore, an increase in occupancy (number of spaces filled) would increase on-street parking utilization rates across all time periods and all parts of the study area. However, the scale of increased on-street parking occupancy or utilization cannot be predicted using typical traffic forecasting tools.

The No Build Alternative would not change the existing (2015) passenger and commercial loading zone spaces (Table 8-7).

Table 8-7. Loading Zone Spaces in Study Area

Generic Loading Zone Spaces	*Passenger Loading Zone Spaces*	*Truck-Only Loading Zone Spaces*	*Commercial Vehicle Loading Zone Spaces*	*Total Loading Zone Spaces*
82	15	32	3	132

8.3.2 Impacts Common to all Build Alternatives

Construction

Construction activities for the Build Alternatives would temporarily affect on-street parking throughout the entire study area. The amount of parking affected would vary by construction stage and street block, and would be determined once construction and staging plans are finalized. Parking supply outside of the construction area would not be affected. Access routes or loading zones at some businesses could be blocked, but this would only occur intermittently. Off-street parking is not expected to be affected by construction, except for minor temporary changes in access to build the improvements.

Operation

Occupancy of both on-street and off-street parking within the study area would increase by year 2040 in conjunction with population and employment growth. All of the Build Alternatives would remove parking spaces, as described below for each alternative. Therefore, an increase in parking occupancy, coupled with reduced parking supply, would increase on-street and off-street parking utilization across the study area. Because occupancy of on-street spaces in some areas is already high, the removal of on-street parking spaces would likely shift occupancy to off-street parking areas.

The Build Alternatives would improve the nonmotorized facilities in the form of the new multi-use trail, new sidewalks, and improved crossings. The enhanced availability of nonmotorized facilities for bicyclists and pedestrians under the Build Alternatives could provide Ballard visitors with additional choices in how they travel to and through the study area. This could result in changes to the mode split among vehicle and nonmotorized modes of travel. A shift to nonmotorized modes could reduce parking occupancy in the study area, which would minimize the impacts of parking loss associated with the Build Alternatives.

City policy prioritizes other uses of street space over parking and is moving toward limiting parking requirements for new development. The Missing Link would replace some parking with enhanced nonmotorized facilities, supporting overall City planning goals for reducing dependency on single-occupancy vehicles (SOVs) in Ballard.

8.3.3 Shilshole South Alternative

Construction

Construction impacts would be the same for all of the Build Alternatives. There are no construction impacts unique to the Shilshole South Alternative compared to the other alternatives.

Operation

Parking Supply

The Shilshole South Alternative would remove a total of 261 on-street parking spaces (Table 8-8). These parking spaces would be replaced by the new multi-use trail, sidewalks, landscaping, and buffers. The removed parking spaces are generally characterized as employee and business customer parking for industrial businesses, and include the following areas:

- The north side of Shilshole Ave NW and NW 45th St would remain largely unchanged, except at intersections where pedestrian crossing improvements require the removal of a few parking spaces close to the intersections.

- The south side of Shilshole Ave NW and NW 45th St would largely have no parking from where the multi-use trail intersects Shilshole Ave NW between 24th Ave NW and 22nd Ave NW until 11th Ave NW.

Approximately 68 of the 261 removed spaces could remain as unregulated, parallel spaces either between the proposed multi-use trail and existing buildings, or between the proposed multi-use trail and Shilshole Ave NW depending on whether the trail is adjacent to the roadway or buildings. If these 68 unregulated spaces are included in the proposed on-street parking supply, the Shilshole South Alternative would remove approximately 193 on-street parking spaces.

Overall, the loss of 261 on-street parking spaces represents approximately 8% of the on-street parking supply in the study area and approximately 7% of the total parking supply (on-street and off-street combined) in the study area.

Table 8-8. On-Street and Off-Street Parking Supply under the No Build Alternative and Shilshole South Alternative

Parking Type	*No Build Alternative*	*Shilshole South Alternative*	*Net Reduction in Supply*	*Percent Reduction in Supply*
On-street	3,107	2,846	261	8%
Paid	484	484	0	0%
Non-paid	2,623	2,362	261	10%
Off-street	882	882	0	0%
Total	3,989	3,728	261	7%

Loading Zone Spaces

Table 8-9 summarizes the net change in loading zone spaces between the No Action Alternative and the Shilshole South Alternative. The Shilshole South Alternative would not remove any designated loading zone spaces (i.e., those marked by a sign). It could potentially remove or relocate some undesignated loading areas used by businesses that are within the City right-of-way. However, it is not possible to quantify these areas because they are not recognized by the City.

Table 8-9. On-Street Loading Zone Spaces under the No Build Alternative and Shilshole South Alternative

Alternative	*Generic Loading Zone Spaces*	*Passenger Loading Zone Spaces*	*Truck-Only Loading Zone Spaces*	*Commercial Vehicle Loading Zone Spaces*	*Total Loading Zone Spaces*
No Build	82	15	32	3	132
Shilshole South	82	15	32	3	132
Net Change	0	0	0	0	0

8.3.4 **Shilshole North Alternative**

Construction

Construction impacts would be the same for all of the Build Alternatives. There are no construction impacts unique to the Shilshole North Alternative compared to the other alternatives.

Operation

Parking Supply

The Shilshole North Alternative would remove a total of 227 on-street parking spaces (Table 8-10). These parking spaces would be replaced by the new multi-use trail, sidewalks, landscaping, and buffers. The removed parking spaces are generally characterized as employee and business customer parking for industrial businesses, and include the following areas:

- Both sides of NW 54th St would have no parking between 30th Ave NW and NW Market St.
- Much of the parking on the north side of Shilshole Ave NW would be removed under this alternative, but some parallel parking would remain.
- The south side of Shilshole Ave NW would remain largely unchanged, except at intersections where pedestrian crossing improvements require the removal of a few parking spaces close to the intersections.
- Both sides of NW 46th St would largely have no parking from Shilshole Ave NW to 11th Ave NW.

Overall, the loss of 227 on-street parking spaces represents approximately 7% of the on-street parking supply in the study area and approximately 6% of the total parking supply (on-street and off-street) in the study area.

Table 8-10. On-Street and Off-Street Parking Supply under the No Build Alternative and Shilshole North Alternative

Parking Type	*No Build Alternative*	*Shilshole North Alternative*	*Net Reduction in Supply*	*Percent Reduction in Supply*
On-street	3,107	2,880	227	7%
Paid	484	486	-2*	0%
Non-paid	2,623	2,394	229	9%
Off-street	882	882	0	0%
Total	3,989	3,762	227	6%

*Initial design for the Shilshole North Alternative includes an increase of two paid parking spaces where the No Build Alternative includes one loading zone space and one unused bus zone. Generally, the City prioritizes the retention of loading zone spaces and would not assume a conversion to a paid or non-paid parking space. However, the initial design did not delineate loading zone spaces. The City would work with adjacent businesses to prioritize the retention or replacement of loading zones as needed.

Loading Zone Spaces

Table 8-11 summarizes the net change in loading zone spaces between the No Build Alternative and the Shilshole North Alternative. The Shilshole North Alternative could potentially remove or relocate 10 generic loading zone spaces and 14 truck-only loading zone spaces. These spaces could remain by shifting them to other locations along existing block faces, to the other side of a street, or to an adjacent block. Generally, the City prioritizes the retention of loading zone spaces, and the City would work with adjacent businesses to prioritize the retention or replacement of loading zones as needed. However, moving loading zone spaces may not be an option on some blocks; therefore, to be conservative, it was assumed that all 24 loading zone spaces would be removed by the Shilshole North Alternative.

Table 8-11. On-Street Loading Zone Spaces under the No Build Alternative and Shilshole North Alternative

Alternative	*Generic Loading Zone Spaces*	*Passenger Loading Zone Spaces*	*Truck-Only Loading Zone Spaces*	*Commercial Vehicle Loading Zone Spaces*	*Total Loading Zone Spaces*
No Build	82	15	32	3	132
Shilshole North	72	15	18	3	108
Net Reduction	10	0	14	0	24

8.3.5 Ballard Avenue Alternative

Construction

Construction impacts would be the same for all of the Build Alternatives. There are no construction impacts unique to the Ballard Avenue Alternative compared to the other alternatives.

Operation

Parking Supply

The Ballard Avenue Alternative would remove a total of 198 on-street parking spaces (Table 8-12). These parking spaces would be replaced by the new multi-use trail, sidewalks, landscaping, and buffers. The removed parking spaces are generally characterized as residential, employee, and business customer parking for retail businesses. A small number of removed parking spaces in the southeast portion of the study area can be characterized as employee and business customer parking for industrial businesses, and include the following areas:

- The south side of NW 56th St would have no parking between 28th Ave NW and 22nd Ave NW.
- The west side of 22nd Ave NW would have no parking between NW 56th St and Ballard Ave NW.
- The southwest side of Ballard Ave NW would have no parking between 22nd Ave NW and 17th Ave NW.
- The south side of NW Ballard Way would have no parking between 17th Ave NW and 15th Ave NW.
- The south side of NW 46th St would have no parking between 15th Ave NW and 11th Ave NW.
- The west side of 11th Ave NW would have no parking between NW 46th St and NW 45th St.

Overall, the loss of 198 on-street parking spaces represents approximately 6% of the on-street parking supply in the study area and approximately 5% of the total parking supply (on-street and off-street) in the study area. The Ballard Avenue Alternative is the only Build Alternative to have an impact on paid parking, with the removal of 86 paid parking spaces or 18% of paid parking within the study area.

Table 8-12. On-Street and Off-Street Parking Supply under the No Build Alternative and Ballard Avenue Alternative

Parking Type	*No Build Alternative*	*Ballard Avenue Alternative*	*Net Reduction in Supply*	*Percent Reduction in Supply*
On-street	3,107	2,909	198	6%
Paid	484	398	86	18%
Non-paid	2,623	2,511	112	4%
Off-street	882	882	0	0%
Total	3,989	3,791	198	5%

Loading Zone Spaces

Table 8-13 summarizes the net change in loading zone spaces between the No Build Alternative and the Ballard Avenue Alternative. The Ballard Avenue Alternative could potentially remove or relocate 10 generic loading zone spaces, two truck-only loading zone spaces, and two commercial vehicle loading zone spaces. It is possible that these spaces could remain by shifting them to other locations along existing block faces, to the other side of a street, or to an adjacent block. Generally, the City prioritizes the retention of loading zone spaces, and the City would work with adjacent businesses to prioritize the retention or replacement of loading zones as needed. However, moving loading zone spaces may not be an option on some blocks; therefore, to be conservative, it was assumed that all 14 loading zone spaces would be removed by the Ballard Avenue Alternative.

Table 8-13. On-Street Loading Zone Spaces under the No Build Alternative and Ballard Avenue Alternative

Alternative	*Generic Loading Zone Spaces*	*Passenger Loading Zone Spaces*	*Truck-Only Loading Zone Spaces*	*Commercial Vehicle Loading Zone Spaces*	*Total Loading Zone Spaces*
No Build	82	15	32	3	132
Ballard Avenue	72	15	30	1	118
Net Reduction	10	0	2	2	14

8.3.6 Leary Alternative

Construction

Construction impacts would be the same for all of the Build Alternatives. There are no construction impacts unique to the Leary Alternative compared to the other alternatives.

Operation

Parking Supply

The Leary Alternative would remove a total of 103 on-street parking spaces (Table 8-14). These parking spaces would be replaced by the new multi-use trail, sidewalks, landscaping, and buffers. The removed parking spaces are generally characterized as residential, employee, and business customer parking for retail businesses, and includes the following areas:

- Both sides of NW 54th St would have no parking between 30th Ave NW and NW Market St.
- Otherwise, the Leary Alternative would not completely remove parking from individual blocks. While multiple blocks would have some spaces removed, some parking would remain.

Overall, the loss of 103 on-street parking spaces represents approximately 3% of the on-street parking supply in the study area and approximately 3% of the total parking supply (on-street and off-street) in the study area.

Table 8-14. On-Street and Off-Street Parking Supply under the No Build Alternative and Leary Alternative

Parking Type	*No Build Alternative*	*Leary Alternative*	*Net Reduction in Supply*	*Percent Reduction in Supply*
On-street	3,107	3,004	103	3%
Paid	484	490	-6*	-1%*
Non-paid	2,623	2,514	109	4%
Off-street	882	882	0	0%
Total	3,989	3,886	103	3%

*An increase of six paid parking spaces under the Leary Alternative is due to the initial design shifting a bus zone and including additional parking spaces where the No Build Alternative includes three loading zone spaces and one unused bus zone. Generally, the City prioritizes the retention of loading zone spaces and would not assume a conversion to a paid or non-paid parking space. However, the initial design did not delineate loading zone spaces. The City would work with adjacent businesses to prioritize the retention or replacement of loading zones as needed.

Loading Zone Spaces

Table 8-15 summarizes the net change in loading zone spaces between the No Build Alternative and the Leary Alternative. The Leary Alternative could potentially remove or relocate eight generic loading zone spaces, three passenger loading zone spaces, and four truck-only loading zone spaces. It is possible that these spaces could remain by shifting them to other locations along existing block faces, to the other side of a street, or to an adjacent block. Generally, the City prioritizes the retention of loading zone spaces, and the City would work with adjacent businesses to prioritize the retention or replacement of loading zones as needed. However, moving loading zone spaces may not be an option on some blocks; therefore, to be conservative, it was assumed that all 15 loading zone spaces would be removed by the Leary Alternative.

Table 8-15. On-Street Loading Zone Spaces under the No Build Alternative and Leary Alternative

Alternative	*Generic Loading Zone Spaces*	*Passenger Loading Zone Spaces*	*Truck-Only Loading Zone Spaces*	*Commercial Vehicle Loading Zone Spaces*	*Total Loading Zone Spaces*
No Build	82	15	32	3	132
Leary	74	12	28	3	117
Net Reduction	8	3	4	0	15

8.3.7 **Connector Segments**

Construction

Construction impacts would be the same for all of the Build Alternatives. There are no construction impacts unique to the connector segments compared to the other alternatives.

Operation

The designs of the connector segments would depend on what segments were being connected; therefore, it is assumed that on-street parking and loading zone removal could occur on one or both sides of any connector segment that was used in the selected alternative. Table 8-16 lists the number of spaces on each side of each segment. The worst case would be the removal of all spaces on any one segment. However, removal of all spaces on both sides of the street would be unlikely, and would only occur on a street that was very narrow where vehicular traffic lanes also needed to remain, leaving insufficient room for parking.

Table 8-16. On-Street Parking and Loading Zone Spaces Under the Connector Segments

Segment Name	*Street Name/Side of Street*	*Potential Net Reduction in Parking Supply*	*Potential Net Reduction in Loading Zone Spaces*
Ballard Ave NW	Ballard Ave NW between NW Market St and 22nd Ave NW (northeast side)	14	1
	Ballard Ave NW between NW Market St and 22nd Ave NW (southwest side)	39	3
NW Vernon Pl	NW Vernon Pl between Shilshole Ave NW and Ballard Ave NW (northwest side)	6	0
	NW Vernon Pl between Shilshole Ave NW and Ballard Ave NW (southeast side)	8	0
20th Ave NW	20th Ave NW between Shilshole Ave NW and Ballard Ave NW (east side)	9	1
	20th Ave NW between Shilshole Ave NW and Ballard Ave NW (west side)	9	2
	20th Ave NW between Ballard Ave NW and Leary Ave NW (east side)	11	0
	20th Ave NW between Ballard Ave NW and Leary Ave NW (west side)	13	0

Segment Name	*Street Name/Side of Street*	*Potential Net Reduction in Parking Supply*	*Potential Net Reduction in Loading Zone Spaces*
17th Ave NW	17th Ave NW between NW 46th St and NW Ballard Way (east side)	4	0
	17th Ave NW between NW 46th St and NW Ballard Way (west side)	1	0
	17th Ave NW between NW Ballard Way and NW Leary Way (east side)	2	0
	17th Ave NW between NW Ballard Way and NW Leary Way (west side)	9	0
15th Ave NW	15th Ave NW between NW 46th St and NW Ballard Way (west side)	0	0
14th Ave NW	14th Ave NW between NW 45th St and NW 46th St (east side)	3	0
	14th Ave NW between NW 45th St and NW 46th St (mid-block)	18	0
	14th Ave NW between NW 45th St and NW 46th St (west side)	7	0
	14th Ave NW between NW 46th St and NW Ballard Way (east side)	3	2
	14th Ave NW between NW 46th St and NW Ballard Way (mid-block)	18	0
	14th Ave NW between NW 46th St and NW Ballard Way (west side)	4	1
	14th Ave NW between NW Ballard Way and NW Leary Way (east side)	5	0
	14th Ave NW between NW Ballard Way and NW Leary Way (west side)	7	0

8.4 Avoidance, Minimization, and Mitigation Measures

8.4.1 Measures Common to All Build Alternatives

Construction

Construction avoidance, minimization, and mitigation measures would be the same for all of the Build Alternatives.

While the Missing Link would reduce the overall parking supply in the project area during construction, the City would maintain parking availability to the extent feasible during construction. Once construction and staging plans have been developed, the City could develop practices to manage parking during construction to ensure that parking is convenient and accessible to businesses and their patrons to the extent feasible. In addition, the City would continue to enforce short-term parking limits to make the most efficient use of the supply of short-term parking within the project construction area. The City could encourage the contractor's workers to find alternative parking areas away from the work site or to use transit to access the work site, thereby maximizing available nearby parking spaces for the public. Strategies used by the contractor could include, but are not limited to, setting up an off-site parking area and/or setting up a staging area to store tools and materials that would eliminate the need to park work trucks close to the work site.

Operation

Operation avoidance, minimization, and mitigation measures would be the same for all of the Build Alternatives.

The alternatives evaluated for the Missing Link would eliminate between 103 and 261 on-street parking spaces, which represents 3 to 7% of all on- and off-street parking supply in the study area. If connector segments were used, this number could increase or decrease, depending on the combination of segments selected.

Current City plans and policies include strategies to encourage the use of transit and nonmotorized modes of travel, and to discourage the use of SOVs. This emphasis is reflected in the City's prioritization of curb space for transit and loading before on-street parking. Goal TG18 of the Seattle Comprehensive Plan (City of Seattle, 2015) notes that mobility is the primary purpose of the arterial street system, and Policy T42 states that it is the City's general policy to replace short-term parking only when the project results in a concentrated and substantial amount of on-street parking loss. This project would not remove parking spaces in a concentrated or substantial manner. Parking removal would be spread out along each of the alternative alignments. The maximum amount of parking in the study area that could be removed is 7% (under the Shilshole South Alternative).

Potential mitigation measures to offset the impact of parking removal include:

- Modify on-street parking policies and practices, such as varying rates by time of day, to make parking more consistently available for short-term users.
- Adjust short-term parking limits to make the most efficient use of the supply of short-term parking for customers of study area businesses.
- Continue to provide information on off-street parking spaces on the City's website, including the Seattle Parking Map.

- Work with transit agencies to increase the awareness of transit routes and facilities in the area and to encourage visitors to use alternative modes of transportation.
- Work with businesses to increase the awareness of the BGT and other bicycle and pedestrian connections in the area to encourage employees and visitors to use nonmotorized modes of transportation.

A mitigation measure to offset the loss of loading zones could be to shift loading zone spaces to other locations along existing block faces, to the other side of a street, or to an adjacent block. However, shifting loading zone spaces could remove additional parking spaces.