

The Seattle Department of Transportation

Delridge Way SW Multimodal Corridor Study Existing Conditions Report

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DELRIDGE WAY SW Multimodal Corridor Development

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DELRIDGE WAY SW Multimodal Corridor Development

1 INTRODUCTION

The Challenge

The City of Seattle has emerged as a world-class city growing at the fastest rate of all major cities in the country. During the next 20 years, the city projects adding another 100,000 jobs and 120,000 people. Quality of life is often measured by three major components: jobs, housing, and transportation. Without a solid transportation network, links between housing and jobs break down. Commerce cannot reach markets in a timely fashion. Residents cannot easily travel between neighborhoods.

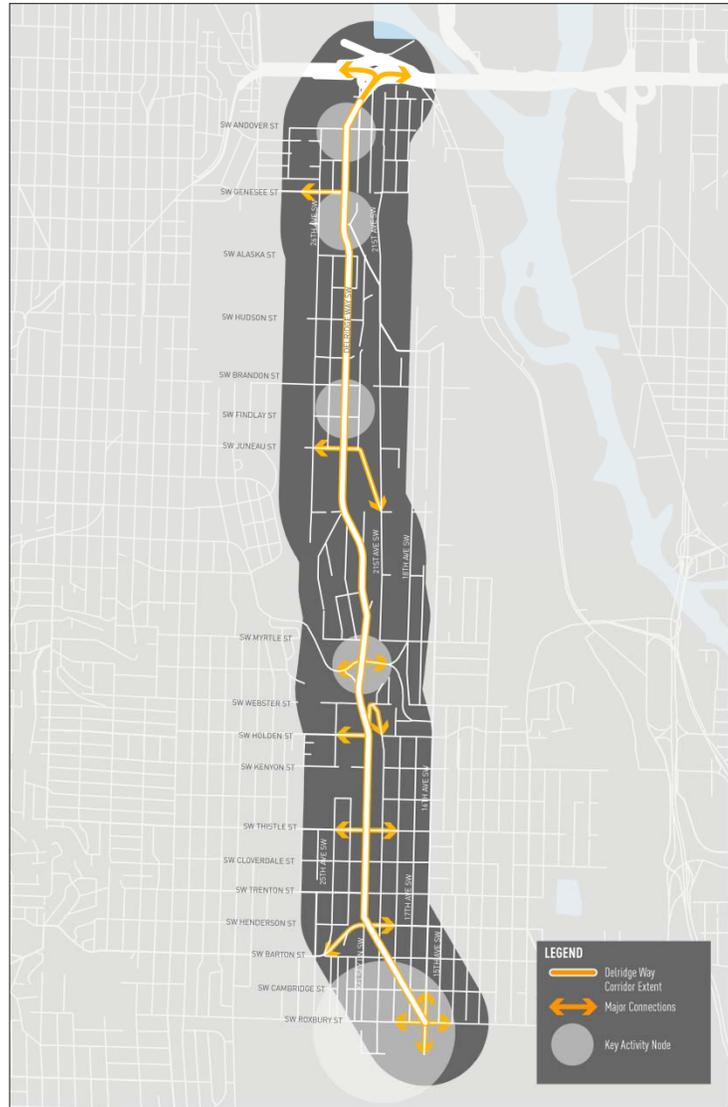
The City of Seattle has recognized that a transportation network serving current and future residents and visitors must rely upon transit, walking, bicycling, bike sharing, car sharing, and other means of access aside from the personal vehicle, which takes up the most space per person and requires using valuable land for parking. In addition, a world-class city transportation network also provides beauty, recreation, and a sense of place, all of which can be integrated into the right-of-way through plazas, streetscaping, and public events. With increasing prosperity comes an even greater obligation to ensure that opportunity reaches all Seattleites. Transportation investments within both the downtown core as well as neighborhoods must be spread equitably.

Given the challenges and opportunities of growth and the need to rethink transportation decisions, the City of Seattle undertook a multimodal corridor program aimed transforming key corridors into places where biking, walking, and transit use become attractive modes of travel. Delridge Way SW emerged as a vital north-south corridor connecting the Burien Transit Center to the West Seattle Bridge and became one of the selected multimodal corridors. Through extensive public outreach, alternatives analysis, and coordination with other planning efforts, the program purpose was to create concepts for multimodal design. Now, these concepts can become reality with the passage of Move Seattle (described below), which provides construction funding for Delridge Way SW among many other projects that will keep Seattle growing, prosperous, and healthy.



Corridor Profile

Delridge Way SW connects all modes between White Center and points north to West Seattle, SODO, the working waterfront via the West Seattle Bridge, as well as downtown Seattle. The 3.8-mile corridor houses some of Seattle’s most diverse neighborhoods, including North Delridge, South Delridge, Pigeon Point, Puget Ridge, High Point, Sunrise Heights, Westwood, and Highland Park. Residents living along the Delridge Way SW corridor are more diverse, earn less income, and are less healthy than the City as a whole. The corridor is also considered a food desert, meaning people living in the area lack convenient access to affordable, healthy food. Limited access to frequent transit service compounds this problem. For these reasons, the Delridge Way SW Multimodal Corridor project serves a critical need to ensure people have a variety of well-connected and affordable transportation choices—options that have the potential to reduce health and wealth disparities.



Coordination with Other Planning Efforts

SDOT has undertaken several efforts to provide vision and goals to achieve in all transportation projects. In addition, Seattle’s modal plans have laid out clear direction for specific modal improvements along the corridor based on extensive public input. Inputs from these guiding documents dovetail with the Delridge Way SW Multimodal Corridor Study by providing a policy framework and design parameters that govern the design and operation of the corridor.

Figure 1 summarizes the policy and planning framework for Delridge Way SW.

Figure 1 Policy and Planning Framework for Delridge Way SW

Planning Effort	Plan Elements
<p>Seattle 2035 Comprehensive Plan</p>	<ul style="list-style-type: none"> ▪ Four core values to achieve ▪ Overall city transportation goals for multimodal corridors to help achieve
<p>Delridge Action Plan</p>	<ul style="list-style-type: none"> ▪ Define community and City strategies that address key community objectives including creating great community places, improving community health, and building community capacity to identify priorities and take action
<p>Move Seattle: 10-year Strategic Vision for Transportation</p>	<ul style="list-style-type: none"> ▪ Policy framework that integrated the modal plans and selected Delridge Way SW as a priority corridor ▪ Supported by a \$1.2 billion levy that funds construction of key priorities
<p>Modal Plans</p>	<ul style="list-style-type: none"> ▪ Data on existing conditions ▪ Extensive public input ▪ Identification of crash hot spots ▪ Bicycle Master Plan recommends a protected bike lane from the West Seattle Bridge to SW Sylvan Way as well as parallel neighborhood greenway connections ▪ Transit Master Plan recommends corridor upgrade to RapidRide ▪ Pedestrian Master Plan recommends several along and across the roadway pedestrian improvements ▪ Freight Master Plan is currently under development
<p>RightROW Improvement Manual Update</p>	<ul style="list-style-type: none"> ▪ Update will provide detailed design standards for the public right-of-way ▪ Includes stormwater and streetscaping standards
<p>Intelligent Transportation Systems (ITS) Strategic Plan</p>	<ul style="list-style-type: none"> ▪ Delridge Way SW is not designated as a Key ITS Arterial, but transit signal priority is proposed throughout the corridor

What's Funded along the Corridor?

SDOT and King County are funding many of the critical transportation investment necessary to implement the City's modal plans and accommodate growth. Figure 2 summarizes the funded projects along the Delridge Way SW corridor, many of which will be influenced by the concept designs that result from this study.

Figure 2 Funded Project List

Topic	Location	Sponsor	Budget
Move Seattle multimodal corridor investments	West Seattle Bridge to SW Roxbury Way	SDOT	\$10m
Route 120 improvements with the goal of reducing travel time, connecting to Rapid Ride C Line, enhancing reliability, and increasing ridership by 500 people per day	West Seattle Bridge to Burien Transit Center	King County Metro	\$8m
Delridge-Highland Park Neighborhood Greenway (with new Seattle Public Utilities drainage at spot locations) ¹	From West Seattle Bridge south along 21 st Avenue SW to SW Myrtle Street. Connects across Delridge Way SW via SW Myrtle Street, 17 th Avenue SW, SW Webster Street, 15 th Avenue, SW, and SW Kenyon Street. Runs along 17 th Avenue SW to White Center.	SDOT	\$3.8m
Sidewalk Development / Safe Routes to School Program will implement new sidewalks, curb extensions, and curb ramps at various locations	Delridge Way SW between 23 rd and 25 th Avenues; SW Orchard and SW Myrtle Streets	SDOT	Not Available

¹ <http://www.seattle.gov/transportation/docs/DelridgeFactSheet.pdf>

2 CORRIDOR CONTEXT

How has History Shaped Mobility along Delridge Way SW?

Delridge solidified its stature as a major commercial center and working class neighborhood in the early nineteenth century. Companies such as the Seattle Steel Company began operations and attracted domestic and immigrant workers to live and work in a new community, then north-south corridors similar to Delridge Way SW began to serve as critical linkages between commerce, ports of call, and worker's homes. In the following years, fishing, canneries, flour mills, and aviation industries all provided working class jobs for the corridor's residents. By the 1930s, the northern portion of the Delridge neighborhood was served by a streetcar line connecting across the Duwamish River to the bustling Seattle city center—although Delridge never developed into a streetcar corridor itself. Soon, other neighborhoods grew southward from Youngstown to White Center. In the 1930s, 24th Avenue, the dirt and plank road that connected the towns, was paved and renamed Delridge Way SW.



Streetcar Viaduct in Youngstown (now North Delridge), connecting to West Seattle and Downtown Seattle, 1930

Image from Seattle Municipal Archives/ flickr CC license

Community Attributes

People walking, driving, biking, taking transit, and delivering goods along Delridge Way SW encounter a variety of right-of-way conditions and land use environments, including variations in sidewalk and overall right-of-way width from segment to segment. The neighborhoods that surround the Delridge Way SW corridor constitute a little more than 3% of Seattle’s total population (**Figure 3**). Compared to the city as a whole, the Delridge Way SW corridor population has more ethnic diversity, a higher percentage of households below 200% of the poverty line, more young people (more people under 18 and fewer people over 64), greater access to automobiles, and a higher obesity rate.

Figure 3 Comparing Delridge Corridor Demographics to the City of Seattle

	Delridge Corridor Demographics	City of Seattle Demographics
Population (#) ¹	20,800	624,681
People of Color (%) ¹	44%	30.5% (2010)
Households with no cars available ¹	9%	16%
Households Below 200% of Poverty ¹	31%	26% (2010)
Population under 18 ¹	20%	15%
Population over 64 ¹	7%	11%
Life Expectancy ²	79.7	81.7
Population with Diabetes ³	9%	5%
Obese Population (BMI = +30) ³	28%	17%
Obese and Overweight Population ³	54%	47%
Disabled Population ¹	10%	9%

Sources:

(1) Seattle Department of Transportation. Multimodal Corridor Demographics (provided by agency staff)

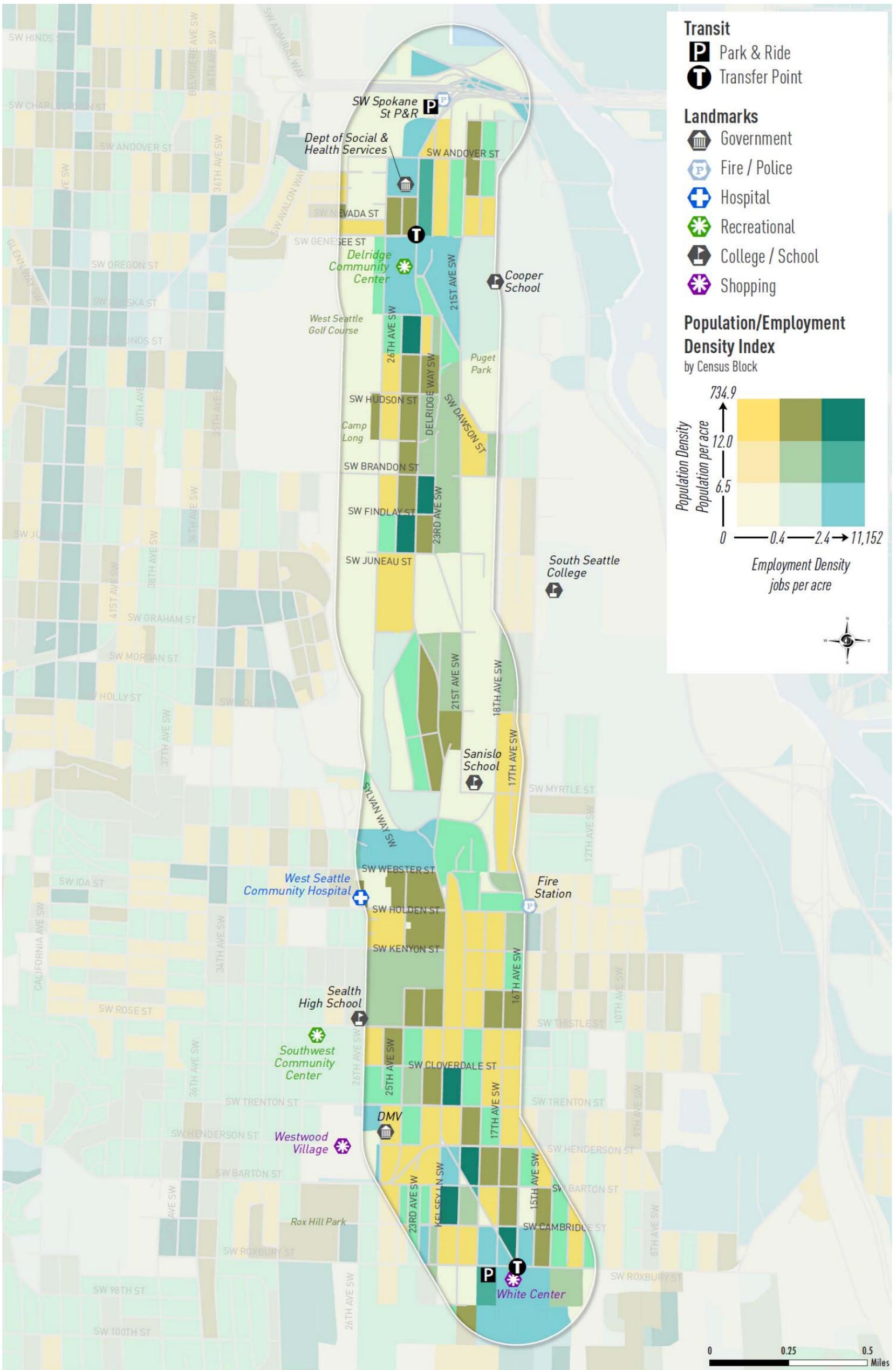
(2) King County Health Profile, City and Health Reporting Area Comparisons, December 2014

(3) King County Behavioral Risk Factor Surveillance System, 2009-2013 averages.

Home and Work Area Profile

The neighborhoods that line Delridge Way SW house a diverse array of employment and residences. **Figure 4** shows population and employment density in the Delridge Way SW study area. While the corridor contains moderate employment densities, mainly in the south end, north end, and middle blocks between SW Brandon Street and SW Juneau Street, the corridor is mostly residential in nature. Relatively moderate residential densities (compared to other parts of the city) are concentrated south of SW Webster Street and north of SW Juneau Street.

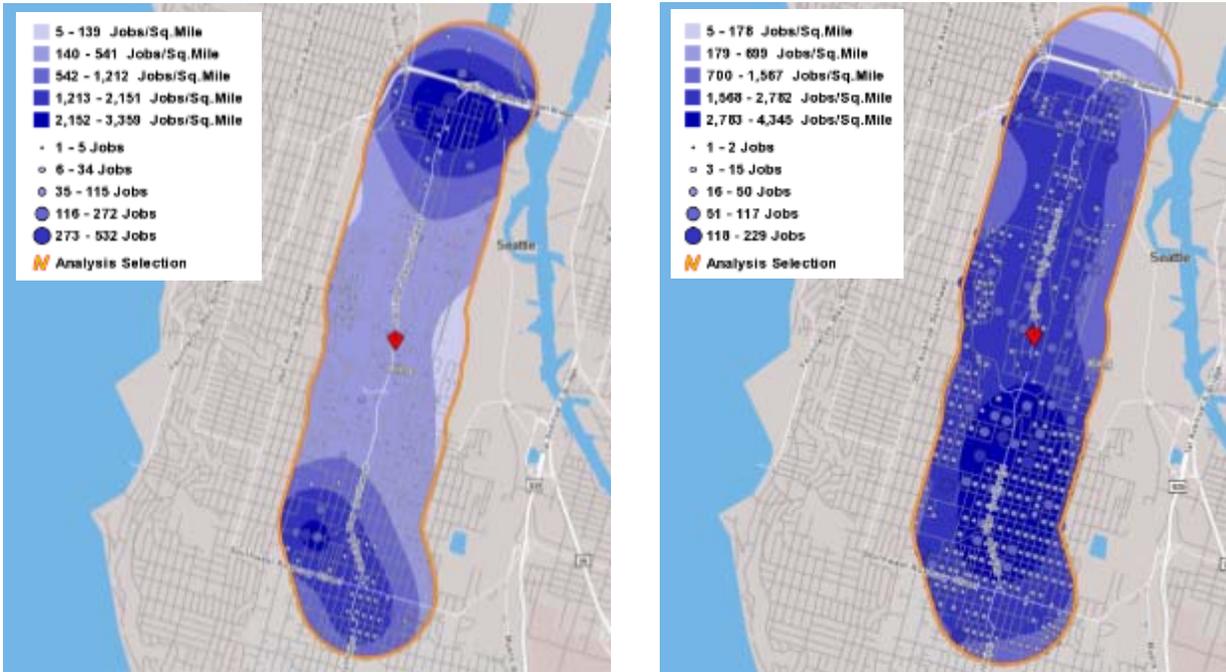
Figure 4 Delridge Way Corridor Population and Employment Index



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According to Longitudinal Employer-Household Dynamics (LEHD) data, the Delridge Way SW corridor produces more trips than it attracts. **Figure 5** confirms that the Delridge Way SW corridor is generally residential in nature, with many more residents than jobs. Roughly 5,200 people work along the corridor, with concentrations in the northern and southern most portions. This represents approximately 1% of all jobs in the City of Seattle. Approximately 12,200 employees live in the Delridge Way SW corridor, representing 4% of the total home locations of employees, citywide.

Figure 5 Home Location of Employees and Job Locations (Quarter-Mile Buffer)



LEHD All Jobs, job location

Source: US Census Bureau, 2011 LEHD

LEHD All Jobs, home location

While some people live and work in the corridor, most residents work in other parts of the city and region. Of the employed residents living in the Delridge Way SW corridor, 39% travel less than 10 miles to reach their place of employment and 39% travel 10 to 24 miles. Roughly 13% of people living in the Delridge corridor travel 25-50 miles to work and 10% travel distances greater than 50 miles. Approximately one quarter of employed people living in the Delridge Way SW Corridor work within the City of Seattle.

A total of 323 of the 12,138 people working in the corridor also live there. Each day, nearly 5,000 people travel from outside of the corridor to work. **Figure 6** and **Figure 7** summarize the home origins of Delridge Way SW employees and the work locations of Delridge Way SW residents, respectively.

Figure 6 Top 15 Home Locations of Delridge Corridor Employees

Place	Count	Share
Seattle, WA	1,380	26.5%
Burien, WA	230	4.4%
Kent, WA	196	3.8%
Renton, WA	145	2.8%
White Center, WA	142	2.7%
Federal Way, WA	129	2.5%
Bellevue, WA	125	2.4%
Tacoma, WA	107	2.1%
Des Moines, WA	83	1.6%
SeaTac, WA	76	1.5%
Auburn, WA	73	1.4%
Everett, WA	72	1.4%
Shoreline, WA	70	1.3%
Tukwila, WA	53	1.0%
All Other Locations	2,318	44.6%
TOTAL	5,199	100%

Source: Longitudinal Employer-Household Dynamics, 2013

Figure 7 Top 15 Work Locations of Delridge Corridor Residents

Place	Count	Share
Seattle, WA	7,152	58.5%
Bellevue, WA	886	7.3%
Tukwila, WA	459	3.8%
Renton, WA	401	3.3%
Kent, WA	373	3.1%
Redmond, WA	342	2.8%
Burien, WA	316	2.6%
SeaTac, WA	251	2.1%
Kirkland, WA	157	1.3%
Everett, WA	155	1.3%
Issaquah, WA	116	0.9%
Tacoma, WA	116	0.9%
White Center, WA	114	0.9%
Auburn, WA	107	0.9%
All Other Locations	1,193	9.8%
TOTAL	12,138	100%

Source: Longitudinal Employer-Household Dynamics, 2013

Languages spoken at home

The neighborhoods that line the Delridge Way SW corridor are linguistically diverse and play a major role in the corridor's rich multicultural heritage and thriving ethnic enclaves. Based on aggregated American Community Survey data (2009-2013) from the North Delridge, South Delridge, High Point, and Riverview neighborhoods, the corridor houses a large proportion of people that speak Spanish, Tagalog, Vietnamese, African Dialects², and other southeast Asian languages at home (Figure 8).

Figure 8 Predominant Non-English Languages Spoken at Home by Neighborhood

Language Spoken at Home	Neighborhood			
	N Delridge	S Delridge	High Point	Riverview
Spanish	5.0%	19.3%	1.3%	3.2%
Tagalog	4.2%	6.3%	2.5%	4.8%
Vietnamese	1.2%	1.6%	4.4%	6.3%
African Dialect	1.9%	3.6%	19.8%	2.0%
Other Pacific Islander	1.8%	2.2%	0.7%	0.4%
Laotian	0.6%	0.0%	0.5%	3.9%
Cambodian	0.4%	0.3%	1.5%	2.7%

Source: American Community Survey 3-Year Estimates, 2011-2013

Health factors

The City of Seattle Office of Sustainability & Environment considers the Delridge Way SW corridor a food desert, meaning people living in the area lack convenient access to affordable, healthy food. Limited access to frequent transit service compounds the limited access to food. Health outcomes for the corridor are below citywide averages and life expectancy is a full two years lower in Delridge neighborhoods than the citywide average. Those considered obese represent almost 30% of the population compared to the city's overall average of 17%. Additionally, those living in the Delridge corridor have a lower life expectancy than other locations in Seattle, due their exposure to health risk factors.³

² Such as Amharic, Ibo, Twi, Yoruba, Bantu, Swahili, Somali.

³ Seattle Office of Sustainability & Environment/ Urban Food Link. 2013. Mapping Food Access in the City of Seattle. Accessed online: <http://www.urbanfoodlink.com/wp/wp-content/uploads/2013/10/City-of-Seattle-Food-Access-MappingFINAL.pdf>

Corridor Land Uses

Delridge Way SW supports a diverse mix of land uses, including residential neighborhoods and a variety of businesses fronting the corridor. Pockets of walkable urban street life can be found most notably in the area between SW Juneau Street and SW Brandon Street and the main street area between SW Cambridge Street and SW Roxbury Street. The corridor also serves the eastern edge of the Westwood-Highland Park Residential Urban Village—one of Seattle’s designated residential urban villages. This development node includes the Westwood Village Shopping Center, parks, schools, commercial, and residential uses. Based on the Comprehensive Plan, several future developments and multimodal connections are anticipated here. Six distinct land use environments characterize the corridor:



Main Street (south end)



Auto-oriented commercial (interspersed)



Multi- and single family residential (throughout)



Revitalized/mixed-use/walkable (central portion)



Civic/park (north end)

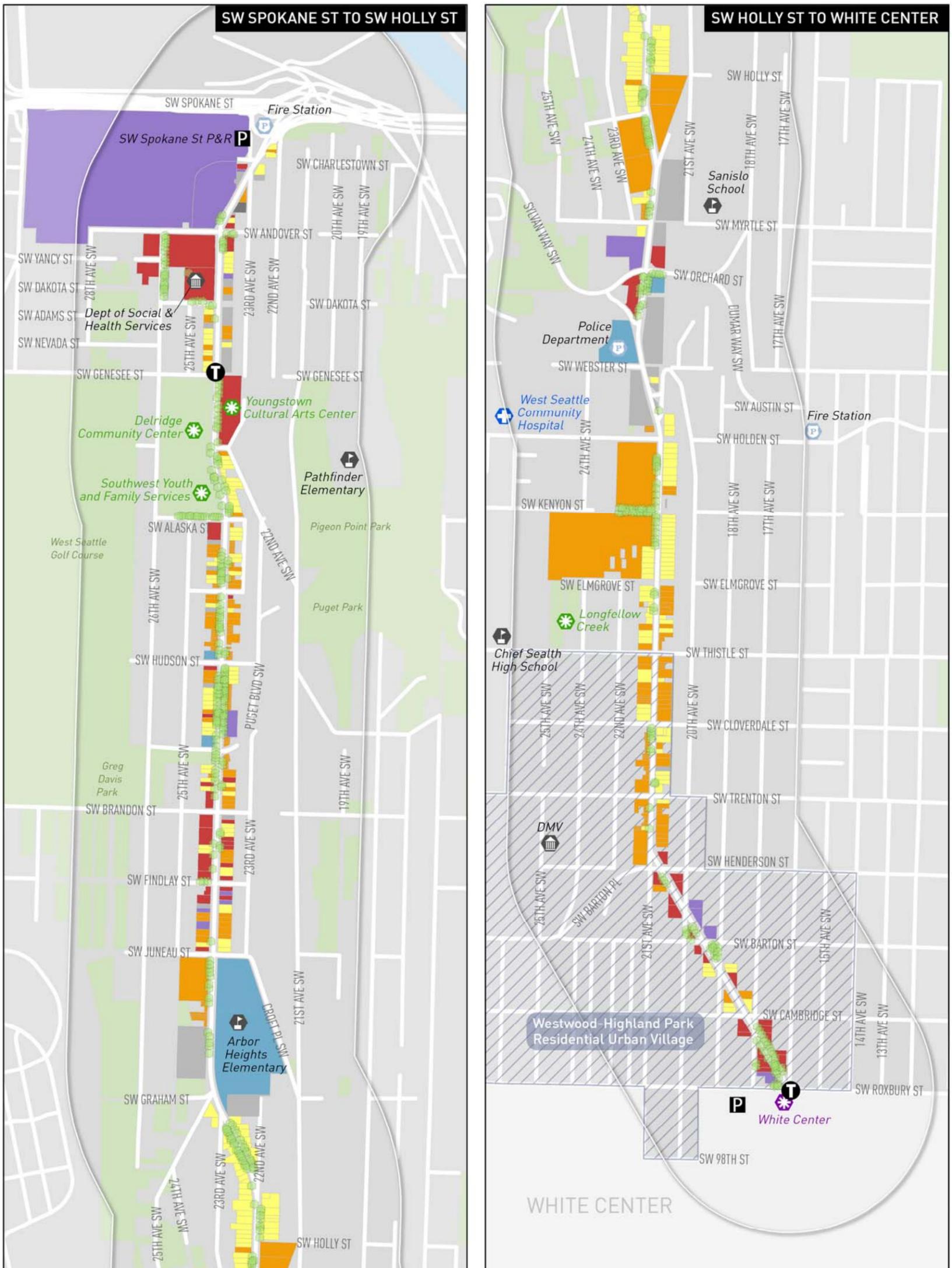


Transitional zone (north end at W Seattle Bridge)

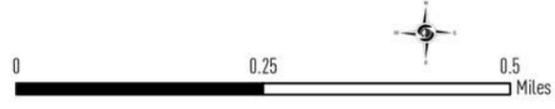
Four hundred sixty-six parcels line the Delridge Way SW project limits. These parcels are primarily residential, single-family and multi-family uses with a smattering of commercial, industrial, and

open space land uses. **Figure 9** maps the existing land use environment in the Delridge corridor. **Figure 10** summarizes the corridor's land use mix.

Figure 9 Existing Land Use and Community Assets



- | | | |
|---|-------------------------|-------------------------|
| Land Use | Community Assets | P Park & Ride |
| Single Family | Government | T Transfer Point |
| Multi-Family | Fire / Police | Tree |
| Commercial/Mixed-Use | Hospital | Urban Village |
| Industrial | Social / Recreational | |
| Major Institution And Public Facilities/Utilities | College / School | |
| Parks/Open Space/Cemeteries | Shopping | |
| Vacant | | |

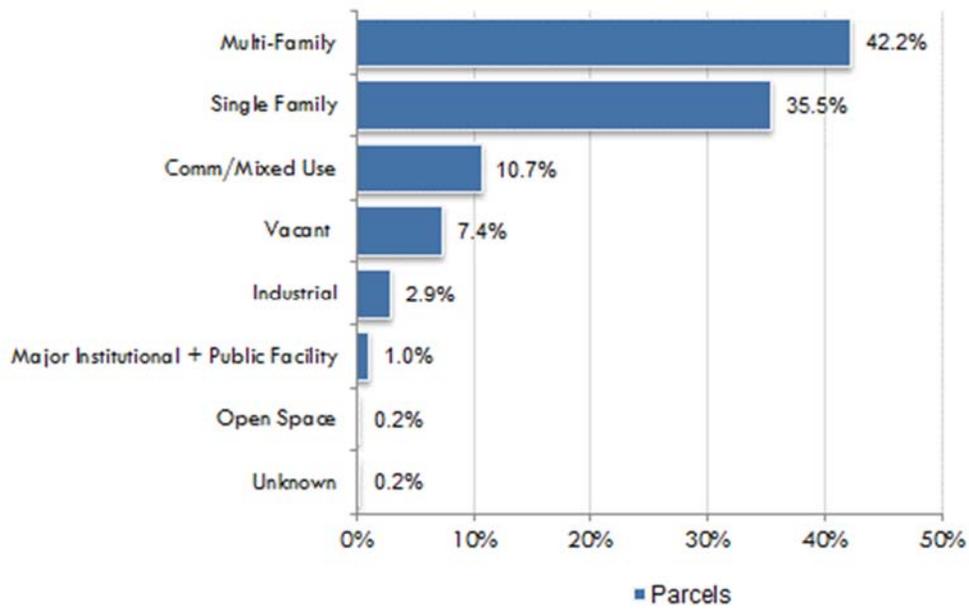


Existing Land Use and Community Assets



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Figure 10 General Land Uses Adjacent to Delridge Way SW, Number and GSF of Parcels



Residential

Multi-family (203 parcels; 42% of total parcels) and single-family (173 parcels; 36% of total parcels) residences are the dominate land uses adjacent to Delridge Way SW.



Lam Bow's Apartments located adjacent to Delridge Way SW

Source: Nelson\Nygaard



Commercial land uses line the southern portion of Delridge Way SW near White Center

Source: Nelson\Nygaard

Commercial and Mixed-Use Activity

Fifty-two commercial parcels exist along Delridge Way SW, including eight convenience stores, three restaurants, eight office buildings, and 11 retail stores. Pockets of commercial activity include areas between SW Brandon Street and SW Findlay Street, the Sylvan Way SW intersection, and between SW Henderson and SW Roxbury Street. The major commercial hub of the corridor is at the intersection of Delridge Way SW and SW Roxbury Street, at Seattle's city limits.

Industrial

The primary industrial use in the study area consists of the Nucor Steel Mill, which has operated in the North Delridge area for more than a century and currently operates on a 50-acre site. Located below the West Seattle Bridge between SW Andover Street and SW Spokane Street, Nucor Steel is the state's oldest and largest recycler, melting down scrap metal for new uses.

Other industrial uses along Delridge Way SW include the Public Storage site at SW Sylvan Way, an industrially zoned vacant lot south of SW Hudson Street, and small industrial use parcels such as tire retailers, automotive repair, and other small-lot industrial uses.

Permitted Development

Much like the rest of Seattle, Delridge Way SW is experiencing a development boom that will affect travel demand, particularly in terms of transit ridership. As of December 2015, the Delridge Way SW corridor had 1,100sf of commercial/office, 7,139sf of retail, and 269 residential units permitted for development.

Community Assets

The Delridge Way SW corridor provides access to a variety of critical community assets and services, including schools, social services and community centers, parks, trails, libraries, and other destinations that meet residents' daily needs. The corridor offers access to two of West Seattle's key retail nodes: White Center and the Westwood Village Shopping Center.

Study area schools rank among the most diverse in the Seattle Public Schools system. According to the National Center for Education Statistics, Chief Sealth International High School is the second most diverse public high school in Washington State and the most diverse in Seattle.⁴ The percentage of students that receive reduced or free lunch is a metric used to illustrate student household financial need and correlates to the need for affordable transportation options. Between 34% and 66% of students receive either reduced or free lunch.⁵



The multi-use Delridge Library located at SW Brandon Street and Delridge Way SW (on the far left of the photo) includes 19 apartment units on the upper floors and serves as a vital meeting place for the North Delridge neighborhood. The branch has 11 computer terminals and a collection of about 20,000 books.

Source: Nelson\Nygaard

The corridor also provides access to an abundance of greenspaces, including parks, greenbelts, and trails. The Seattle P-Patch Program promotes community-stewarded open spaces for urban agriculture for individuals and groups – there are two within the Delridge Way SW corridor. Figure

⁴ Institute of Education Sciences, National Center for Education Statistics, “Common Core of Data, School Directory Information: Chief Sealth International High School, 2013-2014 school year” Accessed online at http://nces.ed.gov/ccd/schoolsearch/school_detail.asp?Search=1&ID=530771001149 and via Niche.com, accessed online: <https://k12.niche.com/sealth-high-school-seattle-wa/student-culture-and-diversity/>

⁵ See:

<http://www.seattleschools.org/modules/groups/homepagefiles/cms/1583136/File/Departmental%20Content/siso/disprof/2011/Prfl11all.pdf>. Only Pathfinder Elementary, Chief Sealth International High School, Denny International Middle School, and Sanislo Elementary School offer these services.

9 on page 2-15 illustrates where many of these community assets are located in relation to the corridor.

Environmental Profile

Environmental assets and geography play a large role in the development patterns seen along the Delridge Way SW corridor. Vestiges of Longfellow Creek emerge along the corridor, with heavily vegetated stretches north of SW Orchard Street and between SW Juneau Street and SW Graham Street. Steep grades (largely east of the corridor) and environmentally sensitive areas result in large stretches of the corridor that are heavily vegetated and undevelopable. Key environmental assets, protected lands, and challenges include:⁶

- City of Seattle identified “Critical Areas” on the western side of the corridor that are prone to floods, including the riparian corridor along Longfellow Creek.
- The riparian corridor south of SW Holden Street expands into a USGS liquefaction zone.
- Potential slide areas are located to the west of Delridge Way SW between SW Brandon Street and SW Orchard Street.
- Forty percent grade steep slope areas are concentrated to the east of Delridge Way SW between SW Brandon Street and SW Graham Street and near the intersection of Delridge Way SW and SW Orchard Street. Two of three Known Slide Locations south of SW Brandon Street are located in the corridor: one to the east of Delridge Way SW between Croft Place SW and SW Willow Street and the other to the east of 23rd Avenue SW between SW Brandon Street and SW Findlay Street.
- A Stability Improvement Area is located along 23rd Avenue SW North of SW Brandon Street and east of Delridge Way SW there is. A concentration of slides has taken place in this area, with 24 recorded deep-seated and shallow colluvial landslides. Generally, this area is classified as a Potential Slide Area by the City.



⁶ http://www.seattle.gov/dpd/research/GIS/webplots/Critical_Areas_Map.pdf

The northbound bus stop across from the Willow Court Apartments is located adjacent to a Known Slide Location.

Source: Nelson\Nygaard

Transportation Context

Delridge Way SW is a critical local and regional transportation corridor in West Seattle, stretching from the West Seattle Bridge to SW Roxbury Street and White Center. As shown in Figure 11, Delridge Way SW is classified as a Principal Arterial and a Regional Connector street type. The street intersects several Principal Arterials at SW Spokane Street and the West Seattle Bridge, Sylvan Way SW/SW Orchard Street/Dumar Way SW, and SW Roxbury Street. The corridor also intersects with Minor Arterials designed and operated as Commercial Connectors. These streets include SW Thistle Street, SW Henderson Street, SW Oregon Street/23rd Avenue SW, and 16th Avenue SW.

The corridor also serves as a north-south linkage in the citywide transit and bicycle networks, providing connections into Center City and neighborhoods immediately adjacent to the corridor. The corridor is not designated as a Major Truck Street; however, it does serve various industrial or commercial nodes that rely on goods delivery and movement.

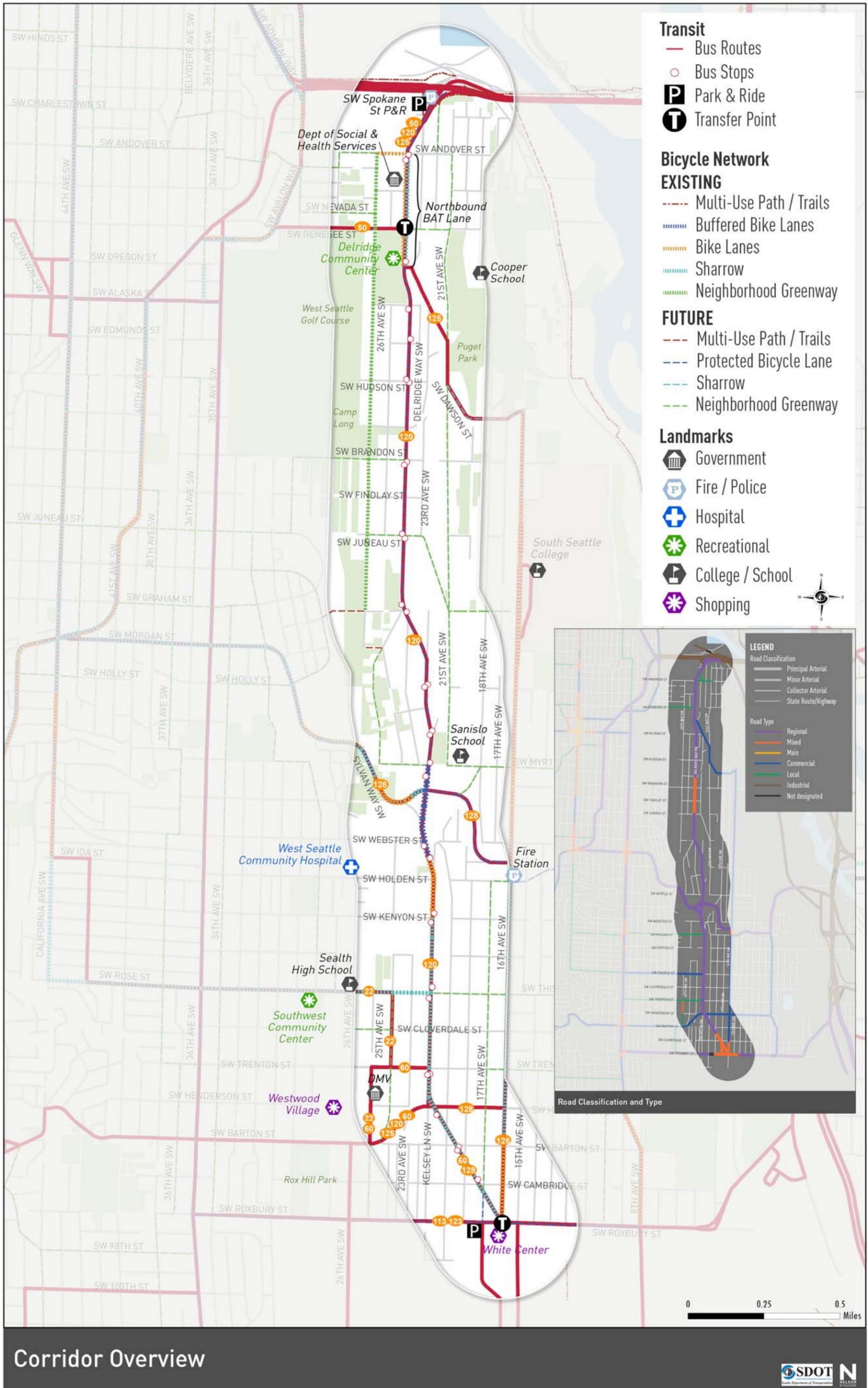


Delridge Way SW is one of only two north-south principal arterials that can move people walking, taking transit, driving, and biking along the entire length of West Seattle

Source: Nelson\Nygaard

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Figure 11 Delridge Way SW Corridor Overview



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Narrow parallel parking lanes are the predominant type of parking along the corridor.

Source: Nelson\Nygaard

Curbspace Allocation

On-street parking spaces are generally present along both sides of Delridge Way SW from the Delridge Community Center to SW Myrtle Street. Parking is prohibited from SW Myrtle to SW Kenyon Streets. South of SW Kenyon Street, parking is present all-day on the east side of the street and during off-peak periods on the west side of the street. Depending on the curb-to-curb width of the street, parking is designed as either parallel (both with and without marked delineation) or back-in angle parking. Back-in angle parking stalls are only provided in the southern portion of the corridor between SW Cambridge Street and SW Roxbury Street.

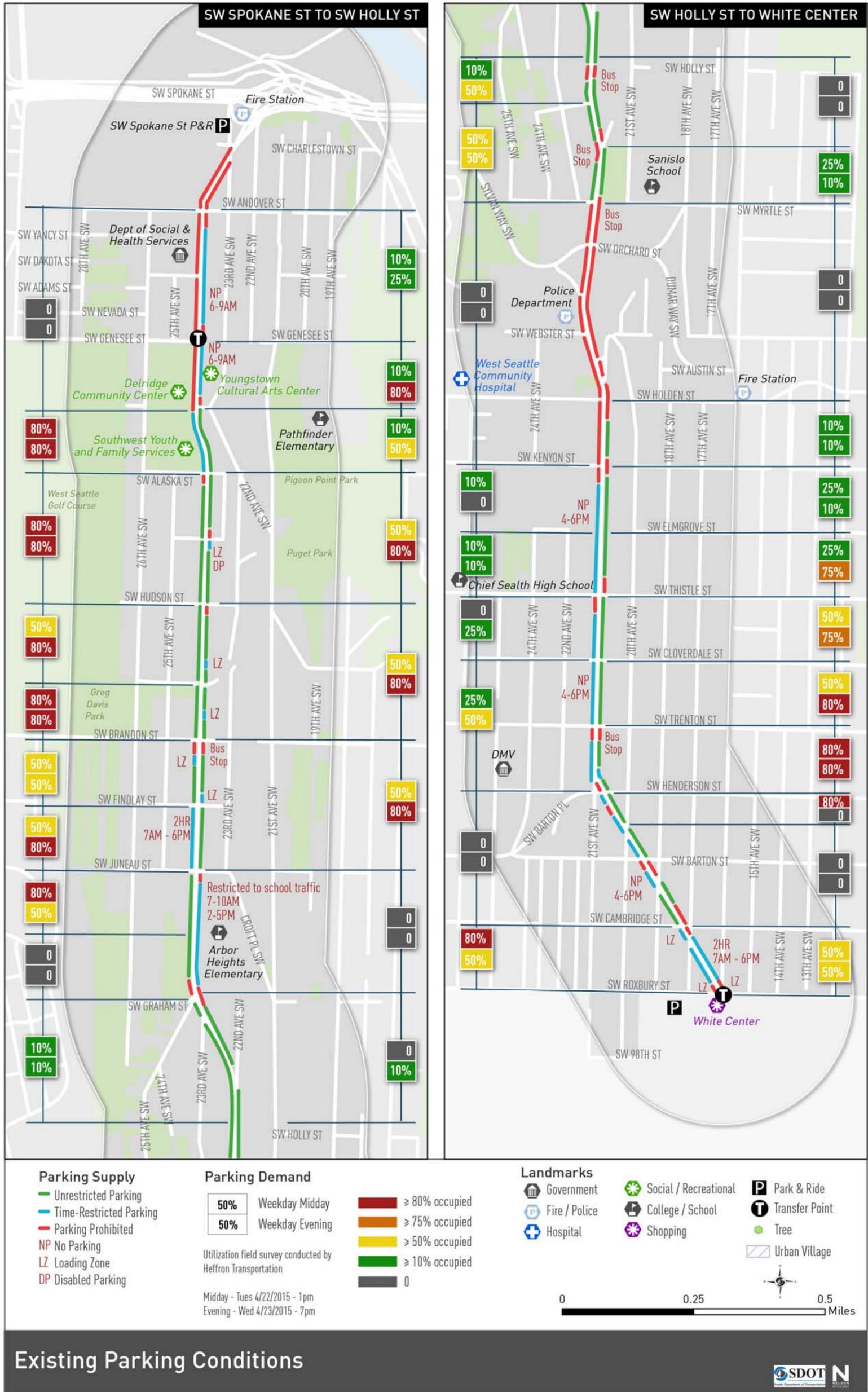
Figure 12 shows where on-street parking is allocated, the location and type of time restrictions, and observed utilization of on-street parking supply during a midday and evening weekday. Parking occupancy was generally highest from SW Genesee to SW Juneau Streets, and from SW Elmgrove to SW Henderson Streets. Some key elements of curbspace management along Delridge Way SW are listed below:

- The northern portion of Delridge Way SW, from SW Oregon Street to the West Seattle Bridge, includes northbound time-restricted (or peak-time) bus-only lanes shared with bicycles from 6 a.m. to 9 a.m. on weekdays.
- On-street parking is available on only the northbound side of Delridge Way SW from south of SW Holden Street to SW Kenyon Street.
- From SW Kenyon Street to 17th Avenue SW, parking is allowed at all hours, all days, on the northbound side of the street while peak-time parking lanes are provided on the southbound side of Delridge Way SW, with parking restricted from 4 p.m. to 6 p.m. weekdays.
- South of 17th Avenue SW to SW Roxbury Street, back-in angle parking exists.
- Commercial loading zones, school bus only, and Metro bus stops are located throughout the corridor with the largest continuous loading zone located at Arbor Heights Elementary School (for bus loading).

Parking capacity and utilization was not collected at off-street facilities, such as apartment buildings or private parking lots, as part of this project.

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Figure 12 Existing Curbspace Supply, Utilization, and Management



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Nearly all commercial locations, regardless of size, offer dedicated off-street parking. Commercial centers along the corridor with large parking lots include the Home Depot at SW Sylvan Way and the office park located between SW Andover Street and SW Dakota Street. Other commercial land uses have off-street parking resources that can be accessed using intersecting streets.

Most single- and multi-family residences along the corridor have off-street parking in the form of a private driveway, surface lot, or garage in addition to on-street parking in front of property. Apartment complexes such as Willow Court Apartments and the West Ridge Park Apartments have large parking lots for visitors and residents.



Restaurant and Convenience Stores adjacent to Delridge Way with private, off-street parking.

Source: Nelson\Nygaard

Traffic Signals and ITS

Traffic control consists of 12 full signalized intersections and one mid-block pedestrian-actuated half signal. In 2012-2013, King County Metro restructured Route 120 along the Delridge Way SW Corridor as part of the City's paving and rechannelization project. The project included traffic signals with transit signal priority (TSP) along Delridge Way SW at SW Roxbury Street, SW Henderson Street, SW Oregon Street, SW Genesee Street, and SW Andover Street. TSP allows buses to trigger signals to preempt a green phase or maintain a longer green phase providing more reliable travel times and service for transit users.

Pavement Type and Condition

Most of the Delridge Way SW corridor was constructed with Portland Cement Concrete, a paving material that can withstand the weight of heavy vehicles and reduces maintenance costs over time when compared to the more porous and less sturdy Asphalt Concrete paving material. Segments

with a mixture of Portland Cement Concrete and Asphalt Concrete paving materials include West Seattle Bridge to SW Dakota Street and Croft Pl SW to SW Holden Street. SW Edmunds Street to SW Brandon Street is paved with Asphalt Concrete only.

With funding from the Bridging the Gap transportation levy, the Seattle Department of Transportation resurfaced the middle portion of Delridge Way SW in 2013. The paving project included installation of new stormwater retention pipes, ADA-compliant curb ramps, curb extensions, and bicycle facilities (buffered bike lanes). While this portion of the corridor now has excellent pavement ratings, other parts of Delridge Way SW have fared less well. Figure 13 shows that segments north of Sylvan Way SW have general pavement quality ratings between fair and very poor. SW Holden Street to SW Brandon Street is the only segment in serious or failing condition.

Street Channelization

Right-of-way conditions along Delridge Way SW vary, as street channelization, striping, and curb-to-curb width change along its 3.8-mile stretch. The corridor's right-of-way (lot line-to-lot line) ranges from 56 feet—between SW Thistle Street and SW Cambridge Street—to 90 feet—on the south end of the corridor. Delridge Way SW street channelization varies based on right-of-way width, turn lane tapering, and curb space allocation.

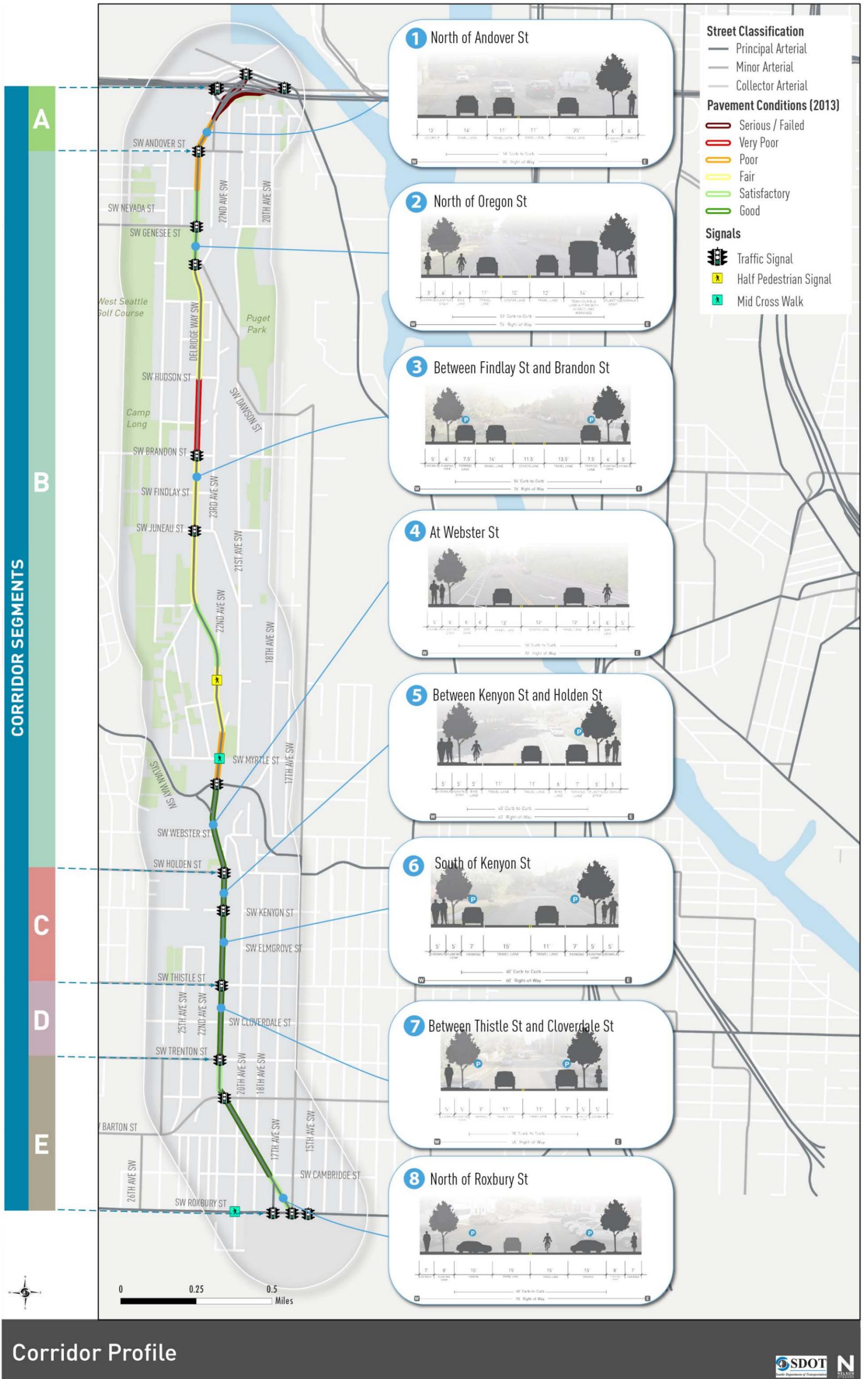
Figure 14 describes the corridor's seven typical right-of-way dimensions, including curb-to-curb widths, lane configurations, and sidewalk widths. It also shows examples of typical channelization patterns. Figure 13 applies of the cross sections along the corridor.



Delridge Way SW street channelization varies based on right-of-way width, turn lane tapering, and curb space allocation.

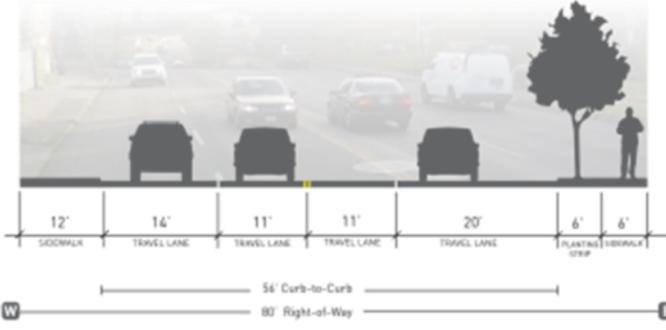
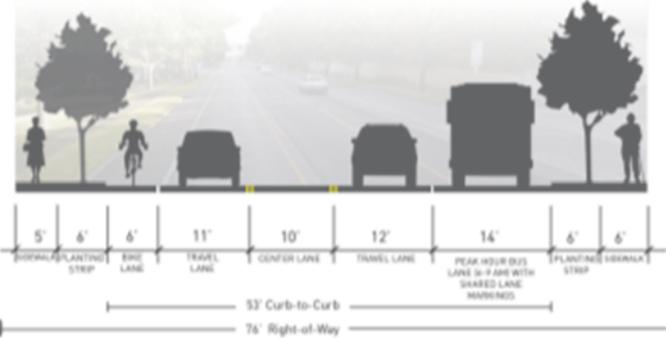
Source: Nelson\Nygaard

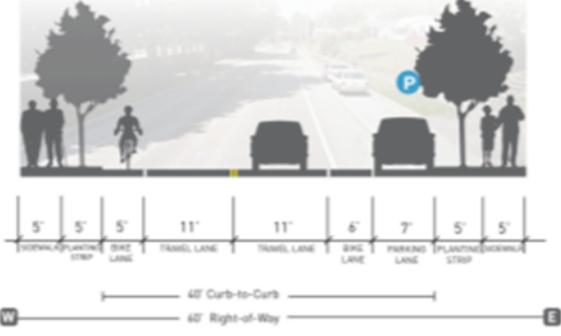
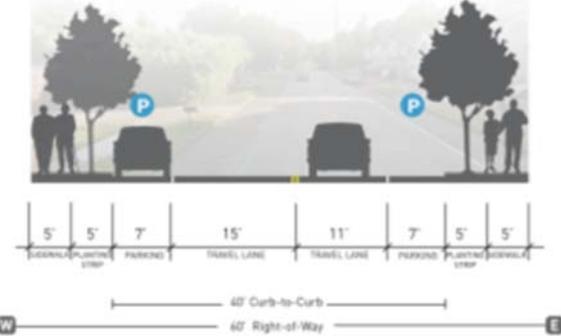
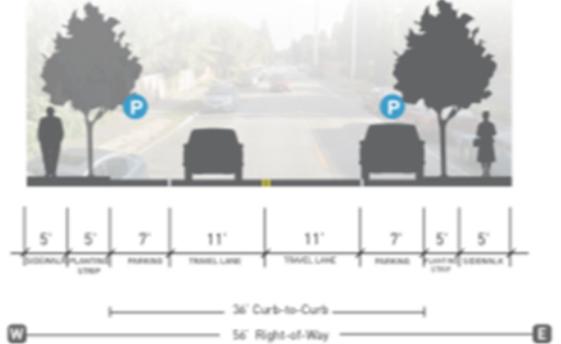
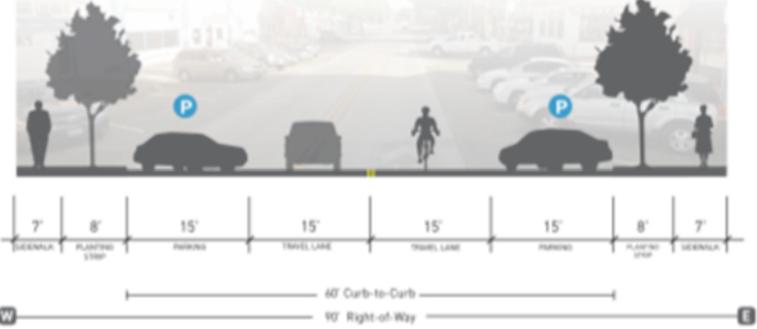
Figure 13 Existing Right-of-Way Conditions



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Figure 14 Street Channelization and ROW Dimensions

ROW Dimensions	Channelization
<p>Location: North of SW Andover St ROW (ft): 80 Curb-to-curb (ft): 56</p> 	
<p>Location: North of SW Oregon St ROW (ft): 76 Curb-to-curb (ft): 53</p> 	
<p>Location: Between SW Findlay St and SW Brandon St ROW (ft): 76 Curb-to-curb (ft): 54</p> 	
<p>Location: At SW Webster St ROW (ft): 76 Curb-to-curb (ft): 54</p> 	

ROW Dimensions	Channelization
<p>Location: Between SW Kenyon St and SW Holden St ROW (ft): 60 Curb-to-curb (ft): 40</p> 	
<p>Location: South of SW Kenyon St ROW (ft): 60 Curb-to-curb (ft): 40</p> 	
<p>Location: Between SW Thistle St and SW Cambridge St ROW (ft): 56 Curb-to-curb (ft): 36</p> 	
<p>Location: At SW Roxbury St ROW (ft): 90 Curb-to-curb (ft): 60</p> 	

Non-Motorized Facilities

Delridge Way SW provides the most direct north-south connection for people walking and biking in West Seattle; however, this route does not feel comfortable for people of all ages and abilities. The following sections illustrate conditions for non-motorized users and points out key challenges faced when navigating the corridor.

Pedestrian Conditions

Conditions for people walking along and across Delridge Way SW vary greatly along the corridor. **Figure 15** summarizes the conditions for people walking, showing location of pedestrian facilities (marked crossings and pedestrian overpasses), pedestrian counts, and crossing distances across Delridge Way SW (a major factor in pedestrian safety at intersections).

Pedestrian Facilities

Sidewalks line both sides of Delridge Way SW throughout the corridor. The condition of the sidewalk varies based on construction date, but generally, sidewalks measure at least five feet wide (which does not meet SDOT's standard of six feet), are constructed with concrete, and include a landscaped and/or parking buffer in many locations. Sidewalks are typically free of obstructions, although some segments in the center of the corridor contain large utility poles located in the middle of the sidewalk.

People walking need to cross the street. Delridge Way SW contains a variety of crossing treatments, including signalized intersections, pedestrian-actuated midblock signals, and refuge islands. Immediately north of the SW Oregon Street intersection, a pedestrian overpass connects the Delridge Community Center to the Youngstown Cultural Arts Center. While the pedestrian bridge offers a safe option for connecting major community assets, this forces inconvenience onto the pedestrian, and many people still choose to cross at-grade with no marked crosswalk. Stairway connections are also provided throughout the corridor to aid walkers as they navigate steep grades located immediately east and west of Delridge Way SW.

Delridge Way SW has some protected pedestrian crossings, but they are spaced far apart in several areas. The long distance between crossings forces people to cross at uncontrolled locations. This behavior is often observed by corridor users, but is not reflected in the count data. This phenomenon signals a mismatch between the location of crossings and peoples' desired connections. The choice to take the shortest distance route, or desire line, to destinations is a basic human behavior and must be considered as the Delridge Way SW Multimodal Corridor project proceeds toward concept design.

Where are People Walking Most?

As shown in **Figure 15**, the highest levels of pedestrian activity along Delridge Way SW coincide with the highest ridership transit stops (see **Figure 18**) and key retail nodes. Thus, access to transit is a key ingredient to where pedestrian activity is occurring along the corridor. PM peak period pedestrian activity *along* Delridge (i.e., crossing side streets) is highest at SW Brandon, SW

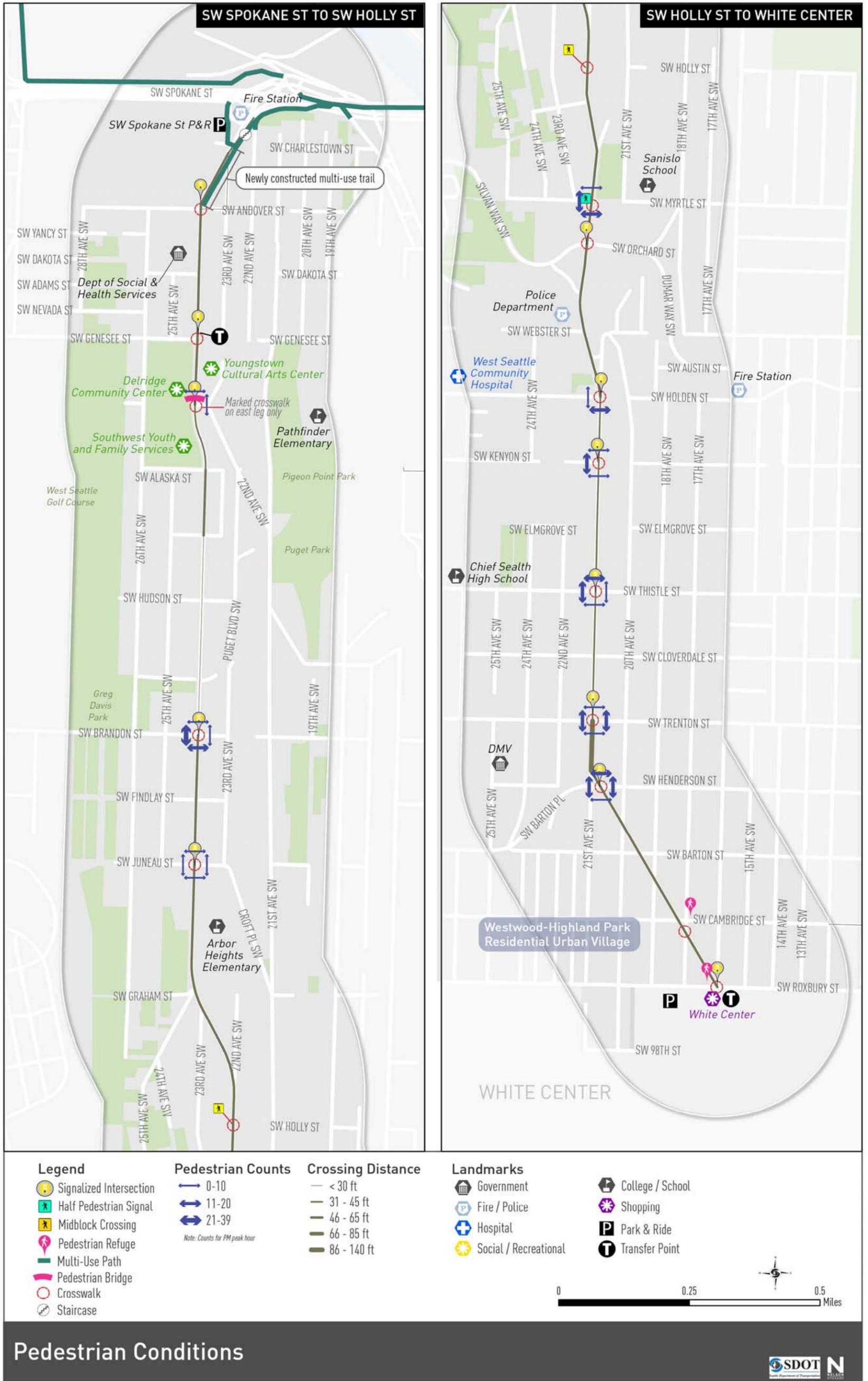
Henderson, and SW Holden Streets. PM peak period pedestrian activity *across* Delridge is highest at SW Brandon, SW Thistle, SW Myrtle, and SW Henderson Streets.



Some sidewalk corridors have distinct furniture zones/landscaped buffers and pedestrian through zones (upper left), while other areas of the street have no buffer (upper right). Long stretches of the corridor lack safe crossings. A pedestrian overpass at SW Oregon Street provides one protected connection, but requires out of direction travel paths (lower left). Utility poles block sidewalks in some instances (lower right).

Source: Nelson\Nygaard

Figure 15 Pedestrian Conditions



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Key Challenges

People navigating the Delridge Way SW corridor by foot experience the following challenges:

Accessible design. Several design and operational issues challenge people with visual or physical impairments. Throughout the corridor, most intersections have been upgraded with ADA-compliant curb ramps, but 104 curb ramps are still needed. Driveway design and utility pole obstructions create challenging pathways for people using mobility devices.

Intersection design. While portions of Delridge Way SW are not excessively wide (ranging between 60 feet to 90 feet), skewed intersections throughout the corridor create long crossing distances for people walking. These complex intersections also reduce drivers' visual connection to sidewalk activity and facilitate high speed turns onto and off of the corridor. Opportunities exist to realign intersections or reduce crossing distance by constructing curb extensions and pedestrian refuge islands. The recent realignment of 18th Avenue SW and 17th Avenue SW at Delridge Way SW exemplifies how a skewed intersection can be squared up.

Crossing Delridge Way SW. Only 18 marked crossings are striped along the 3.8-mile corridor. Marked crossings are located at all signalized intersections and several unsignalized intersections. Legally, every intersection has a crosswalk whether striped or unstriped; however, in terms of highlighting the presence of pedestrian activity and alerting drivers to be aware of walkers, marked crossings help create a multimodal environment. Long distances between marked crossings occur in parts of the corridor. The segments between SW Oregon Street & SW Brandon Street and SW Juneau Street & SW Holly Street provide no marked crossing for more than a half-mile, as summarized in **Figure 16**. On average, signals occur every 1,700 feet and marked crossings occur every 1,600 ft along Delridge Way SW. In contrast, in main street environments block sizes often range from 250-400 feet, with a crossing provided at every block.

Midblock crossing provide a safe and effective way to reduce the distance between crossings and improve access to land uses, if the crossing is designed with a pedestrian activated signal or a midblock pedestrian refuge. Today, only one midblock crossing is present, immediately north of Croft Place SW (a raised pedestrian refuge), and it does not include crosswalk markings. Given that many parts of Delridge Way SW are configured with one lane per direction with a center turn lane, adding more pedestrian refuge islands where a person can watch for a gap in one direction of traffic,



cross to the center, then watch for a gap in the opposite direction, may present one solution to adding more crossings.

Figure 16 Distance Between Marked Crossings

Segment	Distance	
	Feet	Miles
Andover to Genesee	1,322	0.25
Genesee to Oregon	666	0.13
Oregon to Brandon	3,354	0.64
Brandon to Findlay	661	0.13
Findlay to Juneau	656	0.12
Juneau to Holly	2,701	0.51
Holly to Myrtle*	1,413	0.27
Myrtle to Orchard	427	0.08
Orchard to Holden	1,576	0.30
Holden to Kenyon	661	0.13
Kenyon to Thistle	1,305	0.25
Thistle to Trenton	1,306	0.25
Trenton to Henderson	691	0.13
Henderson to 17th Ave	1,748	0.33
17th Ave 16th Ave slip lane	420	0.08
16th Ave slip lane to Roxbury	157	0.03

* A median refuge island exists at Croft Place with yellow truncated domes and yellow/black reflective signs, but no crosswalk markings

Planned Improvements

The city’s Pedestrian Master Plan uses an index of both pedestrian need (infrastructure deficiency) and potential (land uses or conditions that would be ripe for walking) to identify top locations for walkability improvements along the roadway and crossing the roadway. No high priority areas along the roadway were identified along Delridge Way SW, but a few locations have been included in the PMP that intersect Delridge Way SW, including:

- Juneau Street SW west of Delridge Way SW
- 24th Avenue SW south of the corridor

- 23rd Avenue SW south of the corridor
- 22nd Avenue SW north of the corridor
- The triangle formed by SW Orchard and SW Sylvan Streets west of Delridge Way SW

The Pedestrian Master Plan identifies several “Across the Roadway” high priority locations for improvements, including:

- Tier 1 crossing improvement at 21st Avenue south of the bus stop
- Tier 2 crossing improvements at 21st Avenue SW north of the bus stop, SW Cloverdale Street, 20th Avenue SW, 18th Avenue SW, and 17th Avenue SW

These improvements will need to be considered during design alternatives, in addition to the other pedestrian enhancements that will be recommended for implementation.

Bicycle Conditions

Bicyclists use Delridge Way SW as a key north-south bicycle connection due to its direct alignment to the West Seattle Bridge and relatively flat terrain (with exceptions), relative to other West Seattle streets. The quality of bicycle connections and access on Delridge Way SW varies throughout the corridor. People riding bikes must navigate a variety of bicycle facility accommodations including:

- Shared bus-bike lanes from SW Andover to SW Oregon Street
- Shared lanes without markings from SW Oregon to SW Myrtle Street
- Buffered bike lanes from SW Myrtle Street to SW 21st Avenue
- Conventional bike lanes from SW 21st Avenue to SW Kenyon Street
- Shared lane markings from SW Kenyon Street SW Roxbury Street

Where no dedicated bicycle facilities are provided, some people choose to ride on the sidewalk or use the neighborhood greenway connection on SW 26th Avenue. No parallel facility is available north of SW Graham Street, though construction of neighborhood greenways east of Delridge Way SW will begin in 2015.





The range of bicycle facilities provided on Delridge Way SW include shared lane markings (top left), buffered bike lanes (top right), shared bus-bike lanes (bottom left), and conventional bike lanes (bottom right).

Source: Nelson\Nygaard

Figure 17 on page 2-48 demonstrates the existing and planned bicycle connections in the study area. While bicycle connectivity is currently limited and major gaps are present, the recent Bicycle Master Plan Update calls for a dense network of arterial and neighborhood bikeways, including a protected bike lane spanning from SW Andover Street to SW Orchard Street. A neighborhood greenway connection will accommodate people riding bikes south to White Center.

Key Challenges

People navigating the Delridge Way SW corridor by bike experience a number of challenges. They include:

Lack of separation from motor vehicles. People traveling along Delridge Way SW must negotiate high speed, high volume shared lanes or bike lanes with limited separation from motor vehicle traffic. Many people ride on the side walk because conditions are not comfortable. This is a high stress environment for most people riding bikes and acts as a key barrier to those that are interested, but hesitant due to perceived unsafe bicycle conditions.

Hilly terrain, in places. Steep grades present a barrier to sweat-free bicycling along Delridge Way SW. Traveling southbound, people riding bikes are faced with 3-5% grades between SW Myrtle Street and SW Holden Street. Even with dedicated bike lanes and marked buffers, this stretch of the corridor can be challenging for many.

Limited bicycle connections to and across Delridge Way SW. Connecting to intersecting east-west streets or streets that parallel Delridge Way SW is particularly challenging due the area’s discontinuous street network, lack of wayfinding, and steep grades. Likewise, crossing Delridge Way SW can be difficult due to the corridor’s width, traffic speeds, and heavy vehicle platooning (or concentrated vehicle streams) and space between signalized intersections. As illustrated in Figure 17, some of these

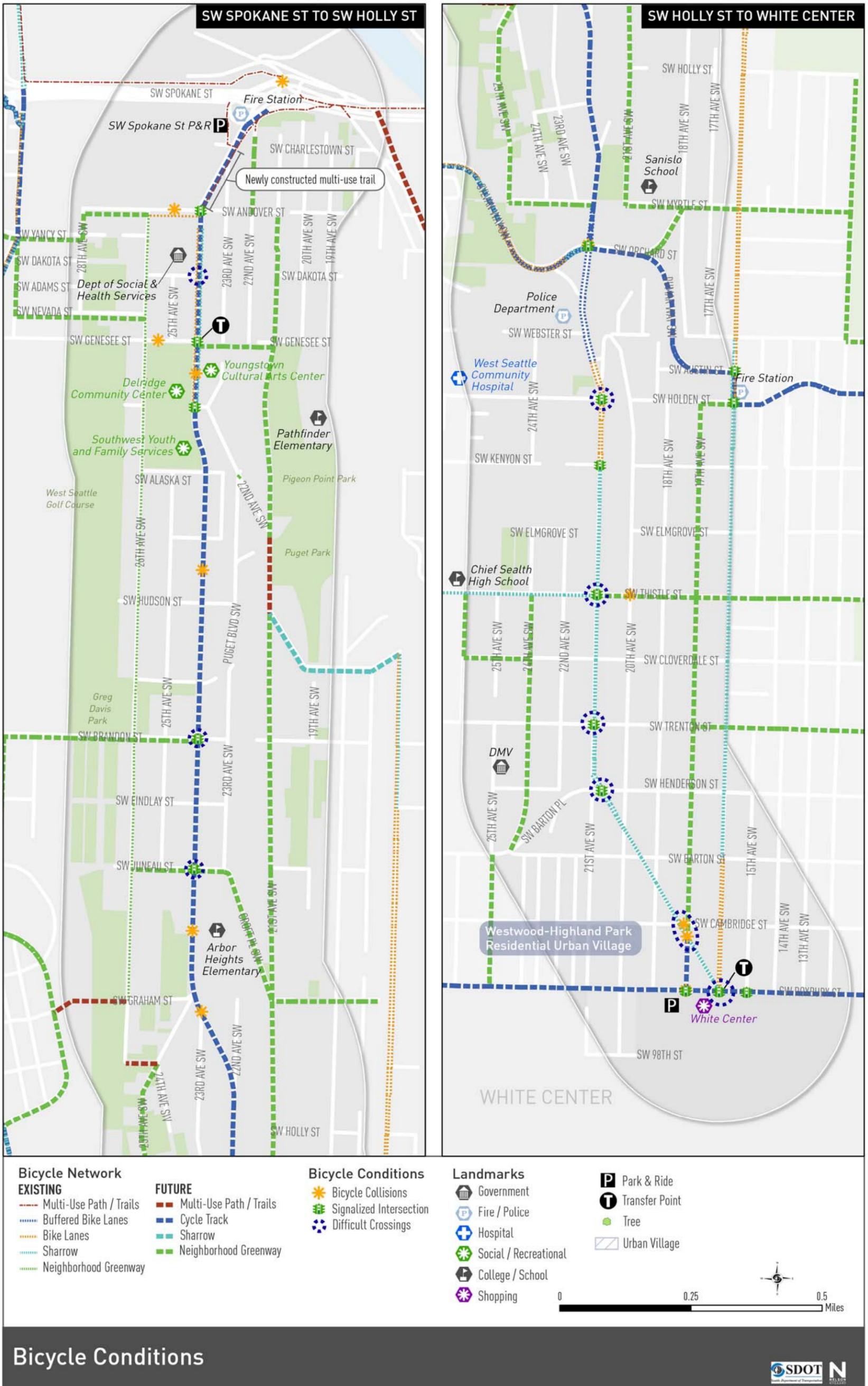


People riding bikes along Delridge Way SW today face major gaps in bicycle facilities, moving from a mixture of bike lanes, buffered bike lanes, and share lane environments.

Source: Nelson\Nygaard

difficult crossings are largely located at unsignalized intersections that provide key east-west connections to nearby land uses. Other challenging crossings include those where a person riding a bike must navigate more than one travel lane to make a left turn off of Delridge Way SW. Marked crosswalks are primarily located at signalized intersections, while unsignalized marked crossings at intersections are located at only 12 locations.

Figure 17 Bicycle Conditions



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Transit Service and Facilities

Several King County Metro routes serve the Delridge Way SW corridor as shown in **Figure 18**. Route 120, a frequent all-day route operating along Delridge Way SW, provides the majority of ridership along the corridor. Route 120 operates from 5 a.m.-1:30 a.m. and arrives every four to eight minutes during peak hours (6 a.m.-8 a.m.). The route provides a one-seat ride through the corridor to downtown Seattle, connecting via the Alaskan Way Viaduct and the 3rd Avenue Transit Mall. Route 120 also provides local connections to Westwood Village Shopping Center, commercial establishments near SW Brandon Street and SW Andover Street, and White Center (with a brief deviation off of Delridge Way SW), eventually connecting users south to Burien Transit Center.

Delridge area residents have less direct access to east-west services, which run along Genesee Street, SW Morgan Street, and SW Roxbury Streets. For many residents, traveling east-west requires transferring from Route 120 to another service. Since Delridge Way SW does not contain major retail such as grocery stores, many residents travel to California Street SW for services—a trip that requires at least one transfer.

Transit Connections

Several routes feed into the Delridge Way SW mainline transit service (Route 120) including Routes 60, 128, 22, 125, 128, and 50. Each of these routes operate all-day every 20 minutes or greater and intersect Delridge Way SW at key transfer locations. The corridor's two major transfer points are located at SW Genesee Street/SW 22nd Avenue (Routes 50, 120, and 125) and Delridge Way SW/SW Roxbury Street/SW 16th Avenue (Routes 60, 113, 120, and 128).

Many of these routes serve as key connections to urban villages in West Seattle and beyond. Route 60 provides connections into job centers such as Boeing, Georgetown, Beacon Hill, and north to Capitol Hill, while Route 125 facilitates trips up the SW 23rd Avenue incline to the South Seattle College campus. In addition, Route 50 is the primary transit connection between the Delridge Way SW and California Avenue SW corridors.

The corridor is also served by a Park-and-Ride lot located at SW Spokane Street (under the West Seattle Bridge viaduct adjacent to Delridge Way SW).

The corridor abuts or meets the RapidRide C-Line at two locations: at Delridge Way SW and SW Genesee Street, where Route 50 connects passengers to the C-Line's SW Avalon Way station, and at the southern end of the corridor where Routes 60, 125, and 560 connect to the C-Line's Westwood Village station.

Corridor Ridership

Figure 18 illustrates average weekday boarding and alighting activity on Delridge Way SW. Boarding and alighting activity is highest at SW Andover Street (724 boarding/alightings) and SW Trenton Street (505 boarding/alightings serving the Westwood Village Shopping Center). Other stop locations with relatively high boarding and alighting activity include SW Genesee Street (495

boardings/alightings), SW Webster Street (474 boardings/alightings), and SW Brandon Street (455 boardings/alightings).

BRINGING RAPIDRIDE TO DELDRIDGE WAY SW

In 2012, SDOT adopted its Transit Master Plan (TMP), establishing transit capital improvement priorities for high capacity transit and priority bus corridors. Delridge Way SW was evaluated as a priority bus corridor. The Plan proposed a variety of improvements including transit signal priority at nearly all signalized intersections, bus bulbs throughout the corridor, and a business access and transit (BAT) lane on the north portion of the corridor (which has since been implemented).

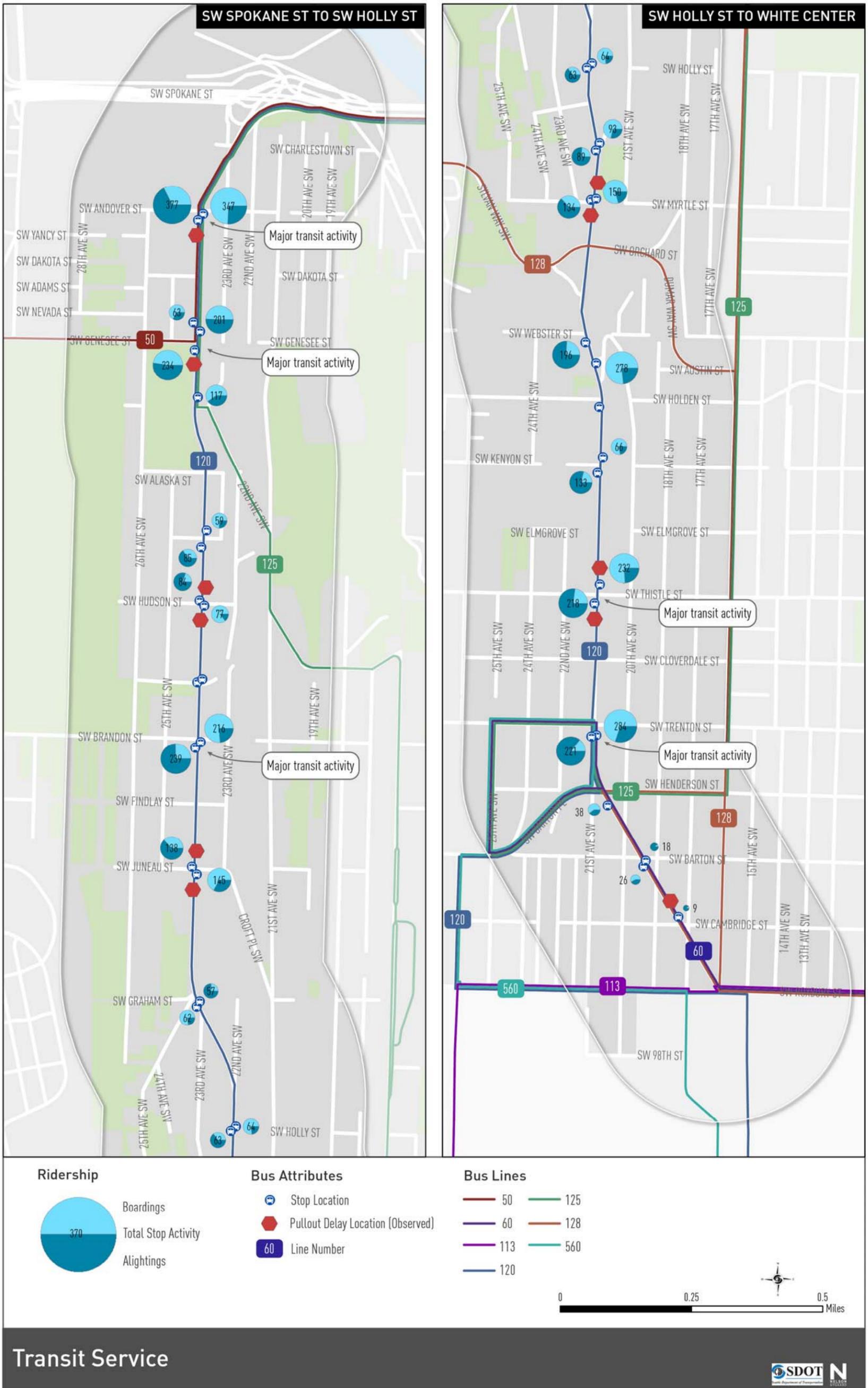
SDOT amended the TMP in 2015, elevating Delridge Way SW to a future RapidRide corridor with full RapidRide branding at 24 high-amenity stations. RapidRide will provide a frequent transit connection between the Burien Transit Center, the Westwood Shopping Center (with connections to the C-Line), and South Lake Union (via the 3rd Avenue Transit Spine). The Amended TMP proposed transit priority treatments at all signalized intersections and increases stop spacing to improve speed and reliability. Roughly 30% of the 10.1-mile alignment would be furnished with 24-hour dedicated transit lanes, as well as 24-hour bi-directional BAT lanes on Delridge Way SW between SW Andover and SW Alaska Streets.

RapidRide and its enhanced service, vehicles, and passenger amenities will prioritize transit movement and redefine the passenger experience for new and existing riders.



Image from 2015 Amended Seattle Transit Master Plan

Figure 18 Transit Service and Performance



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Transit Facilities, Access and Passenger Amenities

An AM peak hour business access and transit (BAT) lane is available on Delridge Way SW in the northbound direction only from SW Oregon to SW Andover Streets, providing transit priority for inbound buses. The corridor contains 39 transit stops with varying levels of passenger amenities. The quality of stop amenities ranges from sign posts with basic stop signage to stops with shelters, benches and trash receptacles. Buses pull out of travel lanes to stop; no bus bulbs have been constructed to speed the boarding process and reduce crossing distances. Pedestrian-scale lighting is not present at transit stops to enhance security and safety. Cobra head street lamps for vehicles are generally present along the corridor.

Because the corridor experiences long distances between marked crossings, some transit users make more direct midblock trips linking to stops.



Higher amenity transit stops on Delridge Way SW include sign posts, shelters, benches, and trash receptacles (top left and right). Some stops have direct pedestrian connections with marked crossings, while others require a long walk to the nearest signalized intersection to safely cross the street. This stop at SW Croft Place offers transit users a pedestrian refuge island, but does not include crosswalk markings (bottom).

Source: Nelson\Nygaard

Speed and Reliability Issues

King County Metro conducted a conceptual improvements study in 2011 for the Route 120 corridor responding to speed and reliability issues experienced between the West Seattle Bridge and Burien Transit Center. Capital improvements proposed for the Seattle segments of the Route 120 corridor are funded by a \$2,875,000 WSDOT Regional Mobility grant and include transit lanes, queue jumps, stop relocation/consolidation, channelization improvements, bus bulbs, traffic signal optimization and transit signal priority. Recommended improvements were selected based on impacts to transit reliability and travel time savings.



The SW Barton Street/26th Avenue SW King County Metro stop is one of many locations along Delridge Way SW where transit vehicles experience pull out delay. Bus bulbs Proposed as part of the 2011 Route 120 Conceptual Improvements Report will provide in-lane stops that reduce delay for transit passengers.

Image from Nelson\Nygaard

Motor Vehicle Conditions

Minor congestion and wide travel lanes (over 14 feet) make driving a car along Delridge Way SW an easy travel option. Based on the turn movement data collected in Spring 2015, Delridge Way SW carries a high proportion of through trips serving destination along the corridor or providing access to points north and south of the West Seattle Bridge and White Center, respectively. Figure 17 summarizes auto travel conditions including average daily traffic volumes, PM peak hour turn movements, intersection performance, number of general purpose travel lanes, and 85th percentile speeds.

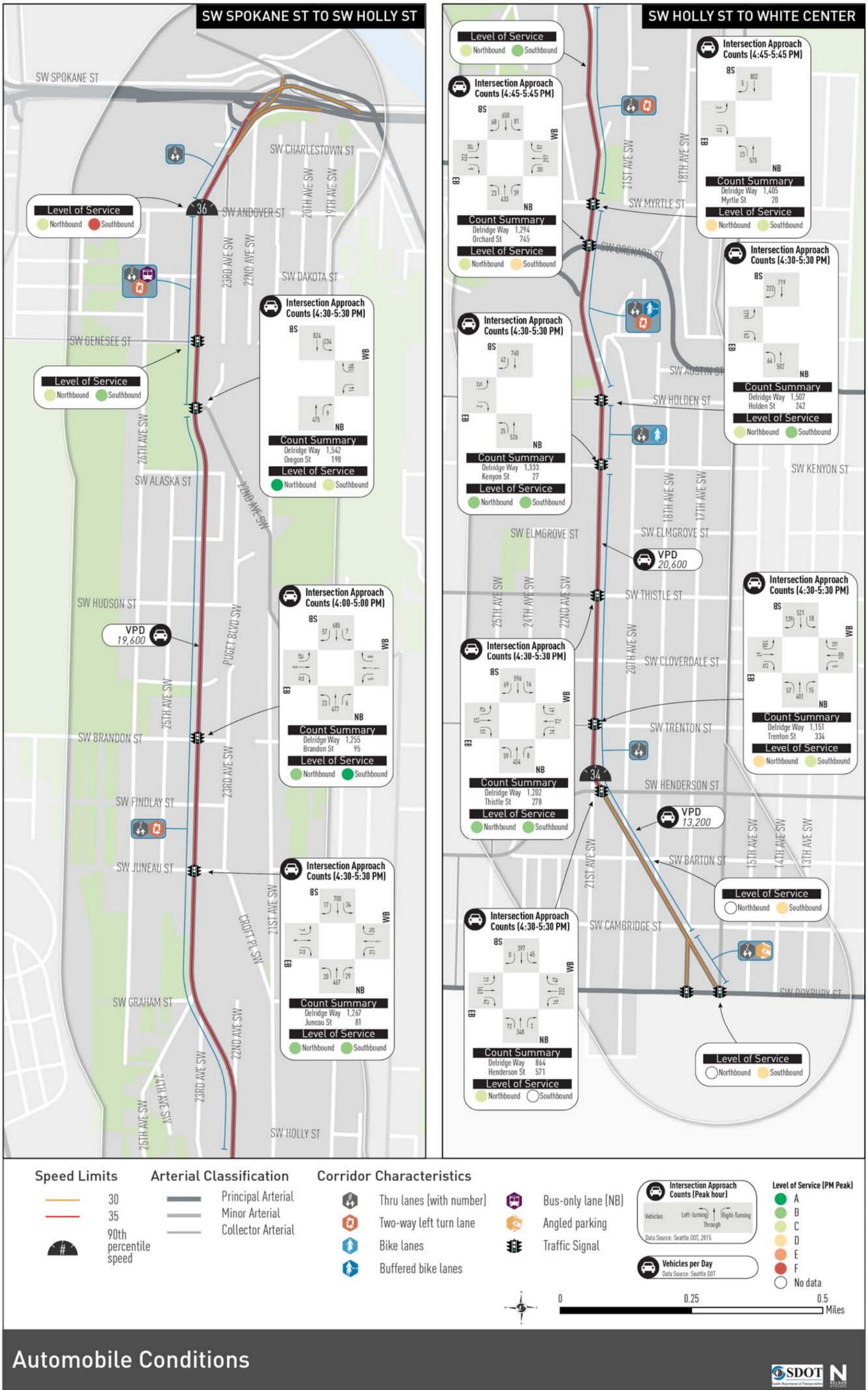


Wide travel lanes south of SW Oregon Street encourage high travel speeds.

Source: Nelson\Nygaard

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Figure 19 Motor Vehicle Travel Conditions



Automobile Conditions

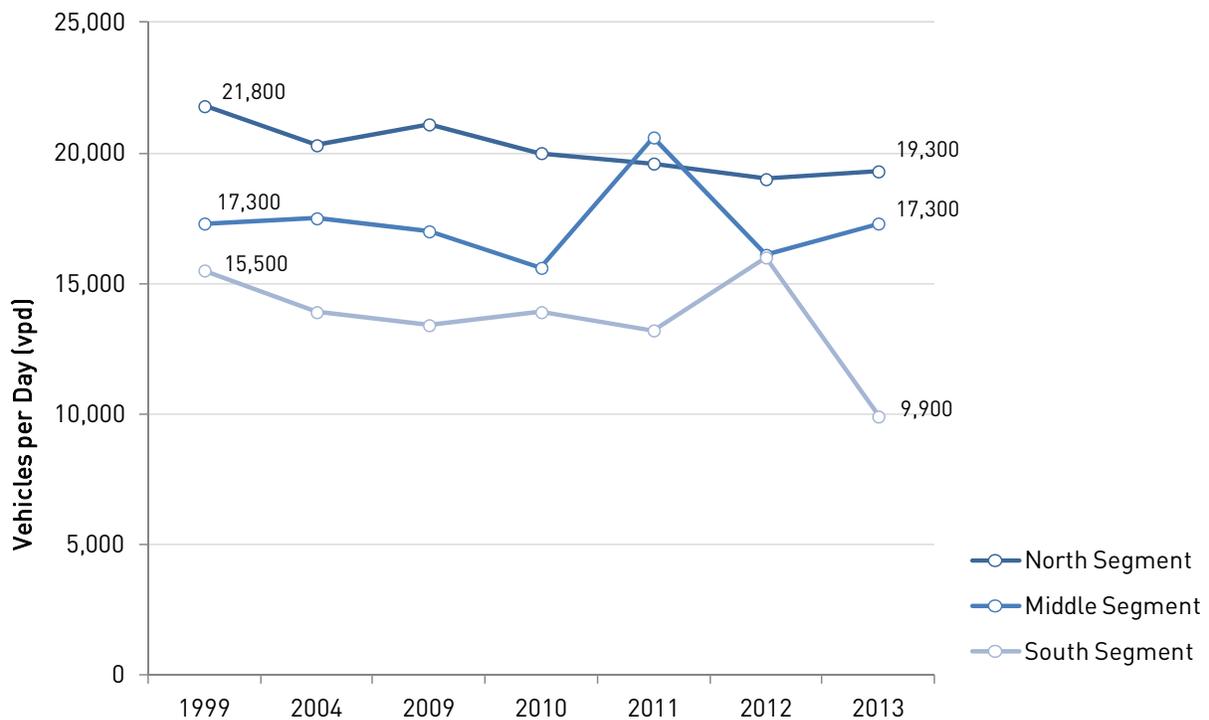


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Average Weekday Traffic Volumes

Since 1999, average weekday traffic volumes on Delridge Way SW have followed a downward trend, similar to many other corridors in Seattle. Figure 20 illustrates this trend at three points along the Delridge Way SW corridor - SW Spokane Street and the West Seattle Bridge experience 19,300 motor vehicles per day, SW Holden Street (south of the intersection) carries 17,300 motor vehicles per day, and at SW Barton/ SW Henderson intersection (south of the intersection) traffic drops to 9,900 vehicles per day.⁷

Figure 20 Average Daily Traffic on Delridge Way SW, by segment



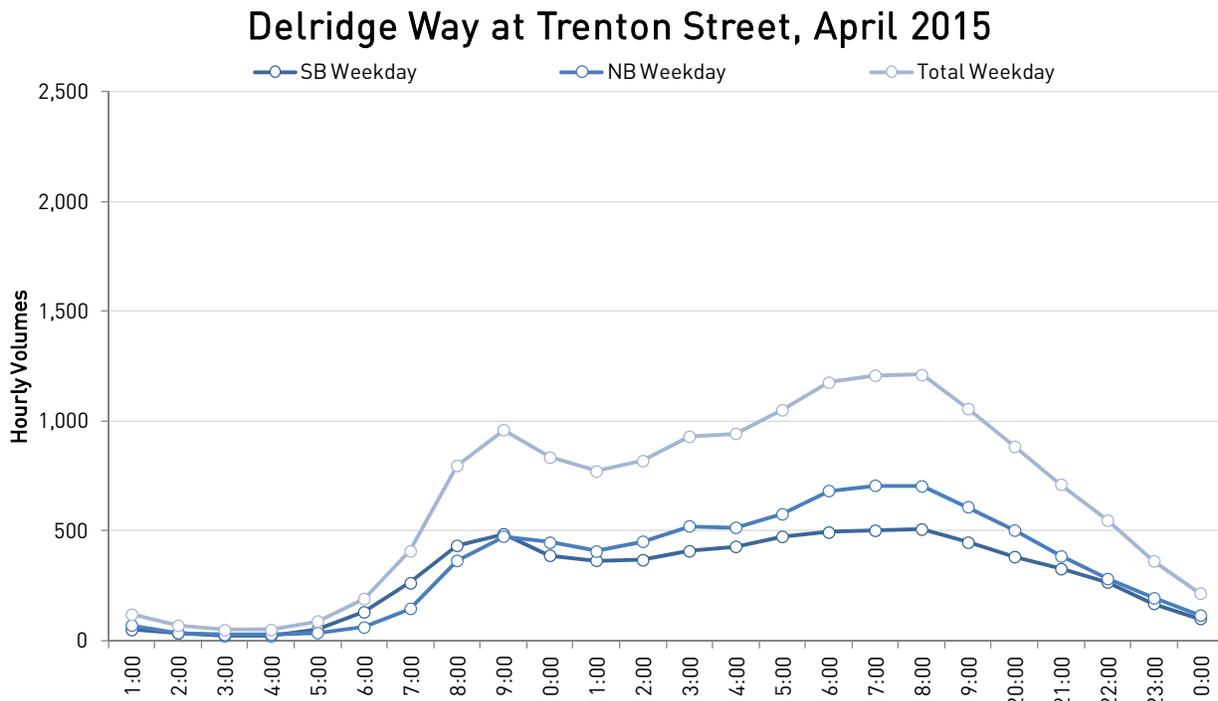
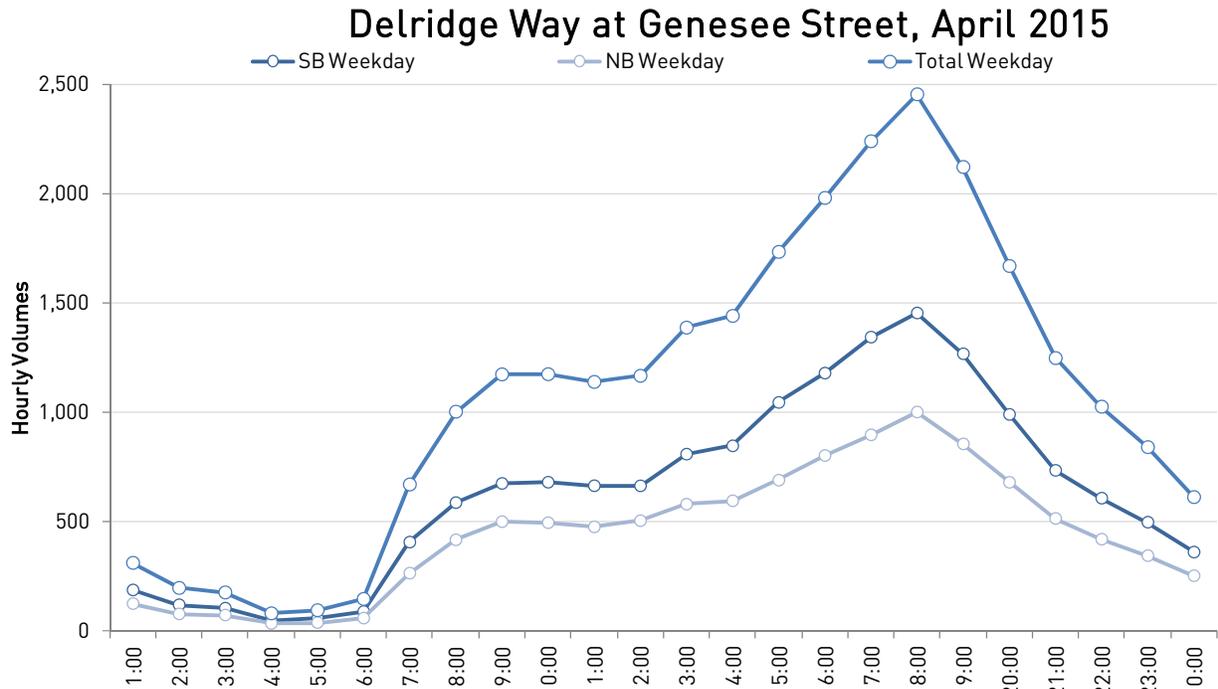
Source: Seattle DOT Traffic Flow Data and Maps – 1999-2013

Traffic flow is relatively well distributed throughout the day, particularly in the southern portions of the corridor. On the north end of the corridor, traffic is heaviest in both directions after the noon hour and the most concentrated (or “peaked”) traffic flow only occurs in the PM southbound direction. Average daily southbound volume at SW Genesee Street is roughly 30 percent more than northbound traffic in the PM peak (1,454 versus 1,001 vehicles). As a result inbound trips toward the West Seattle Bridge are more evenly distributed in the AM, but southbound traffic is marginally higher than northbound traffic. On the south end of the corridor, traffic volumes are less pronounced and more evenly distributed with limited “peaking”. As opposed to the southern

⁷ Seattle Department of Transportation. Traffic Flow Data and Maps – 2013. Accessed online: <http://www.seattle.gov/transportation/tfdmaps.htm>

portion of the corridor, the north end experiences slightly higher northbound volume. Traffic volumes never exceed 1,500 vehicles per hour in either direction along the corridor. This signals that traffic volumes are well distributed throughout the day.

Figure 21 Delridge Way SW Weekday Volume by Direction and Time of Day



Source: Seattle DOT Observed Traffic Counts, April 2015

Turn Movements

As illustrated in Figure 17 high turn volumes in the PM peak hour are concentrated at three intersections on Delridge Way SW. The most concentrated PM peak period turn movements *off* of Delridge Way SW occur at SW Oregon Street (234 SB left turns), SW Holden Street (222 SB right turns), and SW Trenton Street (139 SB right turns). High concentrations of PM peak period turn movements *onto* Delridge Way SW include SW Oregon Street (184 WB right turns), SW Holden Street (NB 179 left turns), and SW Trenton Street (NB 109 left turns).

Intersection Performance

While the Delridge Way SW Multimodal Corridor project will evaluate existing conditions and design alternatives using a multimodal evaluation framework, SDOT employs a standard methodology to rate motor vehicle traffic performance at intersections using intersection level of service (LOS) and a ratio of volume over capacity (V/C). LOS is categorized from levels A to F, with A being close to free flow conditions and F signifying gridlock and heavy congestion, based on delay.

As shown in Figure 19, Delridge Way SW experiences relatively free flowing traffic conditions during the PM peak period, with only a few intersections seeing major congestion. These include northbound SW Genesee Street (LOS F), northbound SW Spokane Street (LOS E), southbound SW Roxbury Street (LOS E), and southbound SW Andover Street. Intersection performance analysis is based on traffic counts collected in April 2015. A full summary of analysis results are provided in Appendix A.

Access management and driveways

The number, distribution, placement, and length of driveway accesses factor into the number of conflicts for people walking, biking, and driving along the Delridge Way SW corridor. Between the West Seattle Bridge and SW Roxbury Street, there are 235 driveways providing business and residential access—with more access on the east side of the street (128) than the west side of the street (103). Although many of these driveways are not in operation, these data suggest that people walking and biking face turn conflicts for a sizeable portion of the corridor. Driveways range from very narrow (10 feet) to exceedingly wide (90 feet) in length. However, most driveways measure between 15 feet and 30 feet in length—typical lengths for arterial corridor driveways. There are no design features like raised medians or right-in, right-out diverters that manage driveway access.

Freight Facilities

While Delridge Way SW is not designated as a Major Truck Street, the street still carries between 500 and 1,000 heavy trucks per day. Commercial nodes and industrial activity along Delridge Way SW, as well as to the north of the corridor, bring local freight traffic, including Nucor Steel goods. Freight trucks use the corridor to access the Home Depot, the shops at Westwood Village, and small retail establishments along Delridge Way SW. A total of 16 load and unload tow away zones are located along Delridge Way SW- most of these are 30-minute loading zones, with restricted use during business hours, usually from 7 a.m. or 9 a.m. to 6 p.m. As many businesses along the corridor include off-street parking, deliveries may use these off-street spaces for loading/un-loading if convenient and available.



Although Delridge Way SW is not designated as a Major Truck Street, between 500 and 1,000 heavy trucks use the corridor on a daily basis (from the Freight Master Plan).

Multimodal Overlap

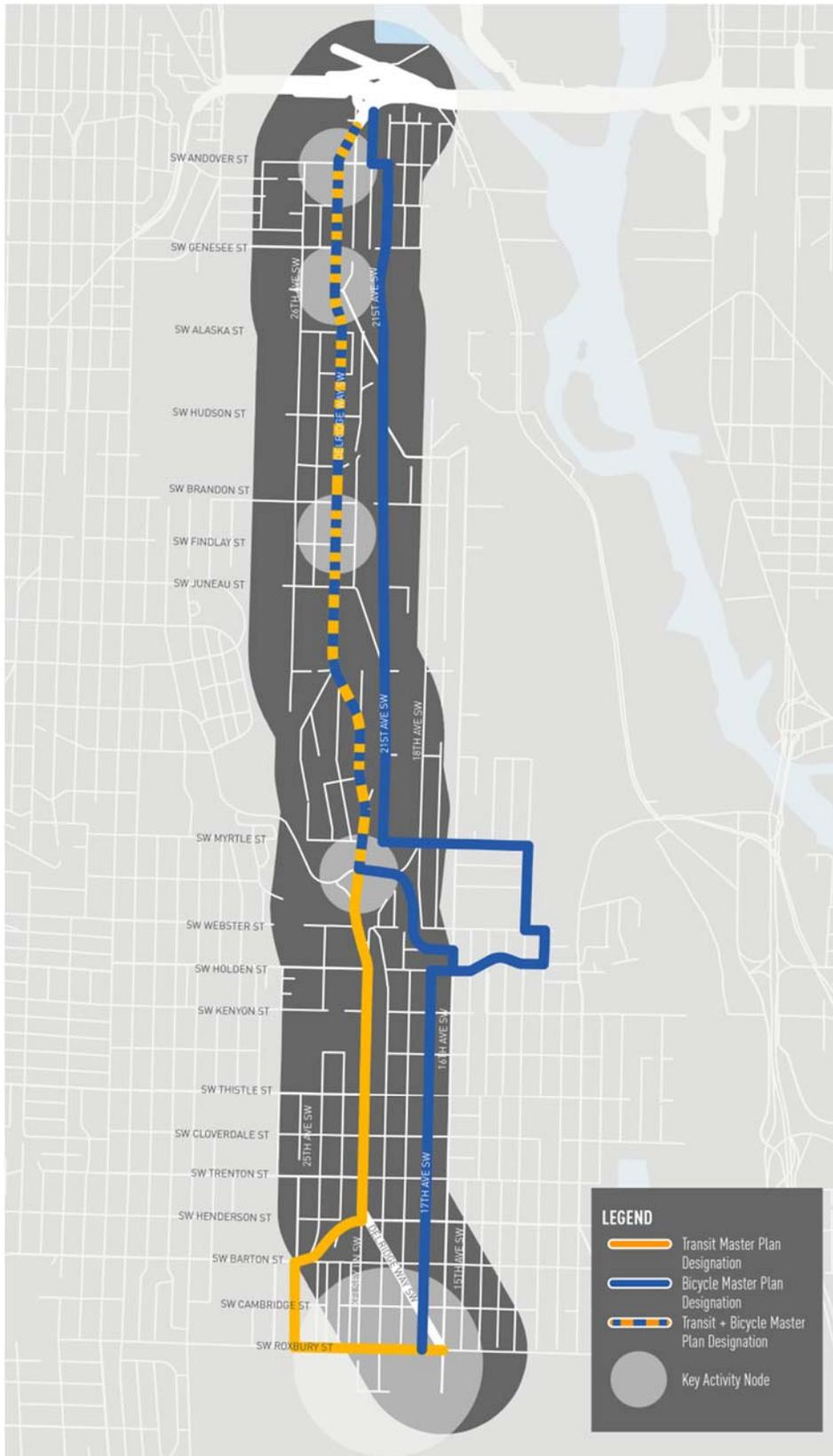
Delridge Way SW provides a portal to the City’s southwestern city limits. The corridor also provides direct connections to West Seattle destinations and the West Seattle Bridge for people walking, driving, taking transit, and riding bikes. For those reasons, this corridor is one of the city’s designated multimodal corridors. Demand for space on this corridor is high and it must be designed and operated as efficiently as possible to meet the needs of all users.

Several Seattle Department of Transportation modal plans identify transportation investments on Delridge Way SW, as shown in **Figure 22**. Most notably, the Bicycle Master Plan Update recommended a protected bicycle lane in the northern segment, while the 2015 Amended Transit Master Plan proposed RapidRide transit priority and other bus rapid transit improvements between the West Seattle Bridge and SW Barton Place. Pedestrian improvements are also needed along and across the corridor. These overlapping recommendations need to be evaluated and considered during the Delridge Way SW Multimodal Corridor project.



Image from Nelson\Nygaard

Figure 22 Overlapping Modal Plans



3 SAFETY

Safety concerns, both real and perceived, affect how people use the street. Depending on whether a person walks, rides a bike, takes transit, or drives a vehicle, safety conditions can influence routing, mode choice, and level of stress. Streets with narrow sidewalks, no bicycle facilities, or motor vehicle speeds in excess of 35 mph can feel unsafe and uncomfortable for people walking and riding bikes. These conditions exist along many portions of Delridge Way SW.

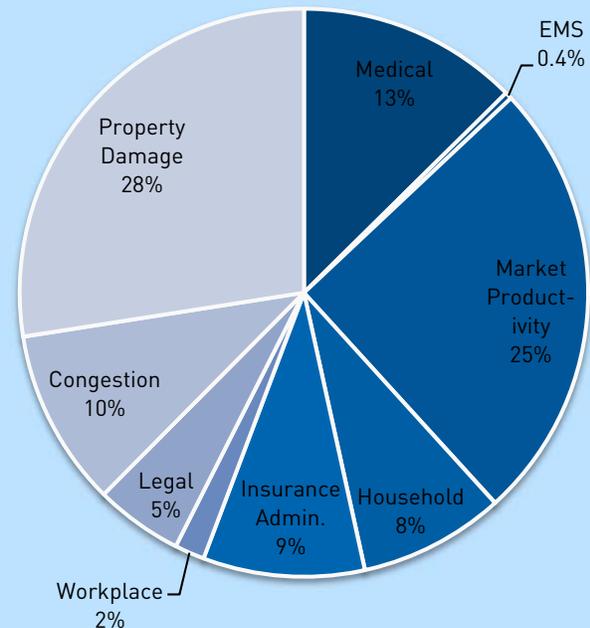
Collisions between drivers, people riding bikes, and people walking are often the outcome of designs that encourage high speeds and reduce visibility and safety for all users. Managing speeds along Seattle’s streets will reduce the number and severity of collisions.

Collisions resulting in injuries and deaths are the worst possible outcome. The City of Seattle has embraced Vision Zero, a policy statement and action plan that sets a goal of zero fatalities and serious injuries on city streets by 2030.⁹ This multimodal corridor project will result in a design for Delridge Way SW that will help achieve Vision Zero by managing speeds and/or providing dedicated space for different modes. The first step in achieving Vision Zero lies in analyzing where, when, how, and why collisions are currently occurring. Analysis of over three years of collision data

The Full Cost of a Collision

The effects of collisions on a community go far beyond the cost of emergency services and medical care. The National Highway Traffic Safety Administration has conducted extensive research and found that the full cost of collisions in the United States in 2010 totaled \$277 billion, which is the equivalent of \$897 for every person living in the country.⁸ Costs incurred from collisions include lost productivity, household income, and insurance, as summarized in Figure 23.

Figure 23 What is the Full Cost of a Collision?



Source: NHTSA

⁸ NHTSA. “The Economic and Societal Impact of Motor Vehicle Crashes, 2010.” <http://www-nrd.nhtsa.dot.gov/Pubs/812013.pdf>

⁹ City of Seattle. “Vision Zero Plan.”

<http://www.seattle.gov/Documents/Departments/beSuperSafe/VisionZeroPlan.pdf>

highlights hot spots and opportunities for change.

Delridge Way SW Collisions

During the past three years¹⁰, 361 total collisions occurred along the Delridge Way SW corridor, nearly all of which (88%) involved people driving vehicles (as shown in Figure 24). Although 57% of the collisions resulted in property-damage only, 40% resulted in some type of injury or death. Between January 2012 and December 2014, 141 collisions resulted in injuries that involved a total of 348 people and two people were killed, one of whom was a person walking.

The most common types of collisions along Delridge Way SW include front-end and rear-end collisions between people driving vehicles. This is a common type of collision on streets with many turn conflicts—particularly driveways—and speeds higher than 30 mph. Delridge Way SW has 235 driveway accesses from SW Spokane Street to SW Roxbury Street, equating to roughly one driveway (each with up to four conflicts) every 85 feet. Figure 25 shows the breakdown of total collisions by collision type and provides an example graphic of what the collision looks like as taken from diagrams provided by SDOT.



Source: West Seattle Blog

¹⁰ Crash data along Delridge Way provided by SDOT. Data points span 1/1/2012 – 12/31/2014.

Figure 24 Collisions by Mode and Severity



Source: Seattle DOT

Figure 25 Collision Types

Collision Type	Number	Percent	Example Diagram
Motor vehicle struck motor vehicle - front end angle	143	41%	
Motor vehicle rear-end collision	137	39%	
Motor vehicle ran off road	22	6%	
Motor vehicle hit object in road	12	3.4%	
Motor Vehicle hit pedestrian	12	3.4%	

Collision Type	Number	Percent	Example Diagram
Motor vehicle sideswipe	11	3.1%	
Motor vehicle struck motor vehicle - left side at angle	8	2.3%	
Bicyclist and motor vehicle collision	6	1.7%	
Bicyclist hit pedestrian	1	0.3%	

Source: Seattle DOT

Figure 26 shows the number of collisions annually between 2012 and 2014. In the city overall, the collision rate per 1 million trips was 54.8 in 2013, the latest year for which data was available.¹¹ Delridge Way SW volumes vary from 17,300-19,300. Using AADT, Delridge Way SW's collision rate of 17.8 per 1 million trips in 2014 was far lower than the city rate. This collision rate marks a positive characteristic to be built upon as the City seeks to eliminate traffic-related deaths and serious injuries along the corridor. In assessing collisions by month and year, the trend is similar across 2012, 2013, and 2014, with collision occurrence lower in the summer when fewer people are traveling and higher in the spring and fall.

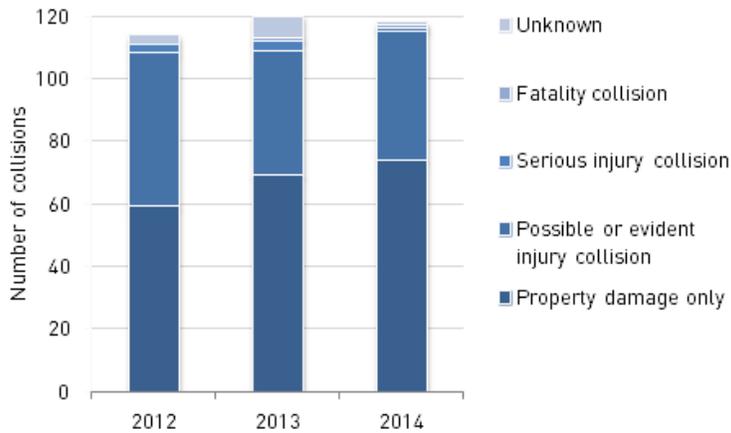
Figure 26 Total Collision Trends

Year	Collisions	Change	% Change
2012	117		
2013	126	9	7.7%
2014	119	-7	-5.6%

Serious and fatal injuries have been declining over time, as illustrated in Figure 27, with a rate that is well below the city rate.

¹¹ Seattle DOT. "2014 Traffic Report." <http://www.seattle.gov/transportation/docs/2013TrafficReportWEB.pdf>, page 21

Figure 27 Injury Collision Trends



Speeds along Delridge Way SW

Motorist speeding is a major cause of collisions and a determinant of collision severity. Three factors lead to these outcomes (cause and severity):

- Higher speeds increase the chances of a collision. The higher the speed, the longer the reaction and braking distances. Field of vision is also reduced; meaning drivers no longer see the context of the street and lower the ability to see activity outside of the curb line.
- The difference in mass between the two colliding bodies (Figure 28) means the lighter of the two will bear the most severe injury.
- The severity of the injury rises as speed increases (Figure 29).

Figure 28 Typical Vehicle Weights

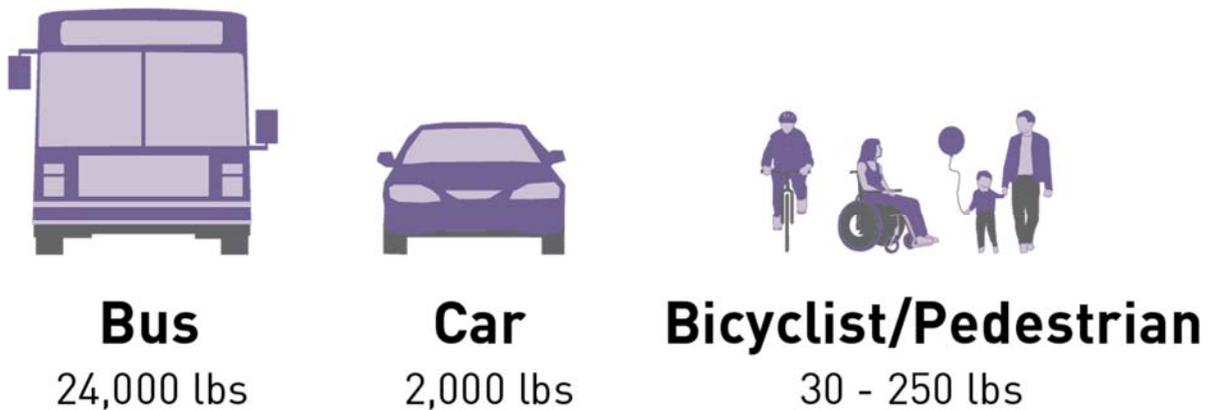
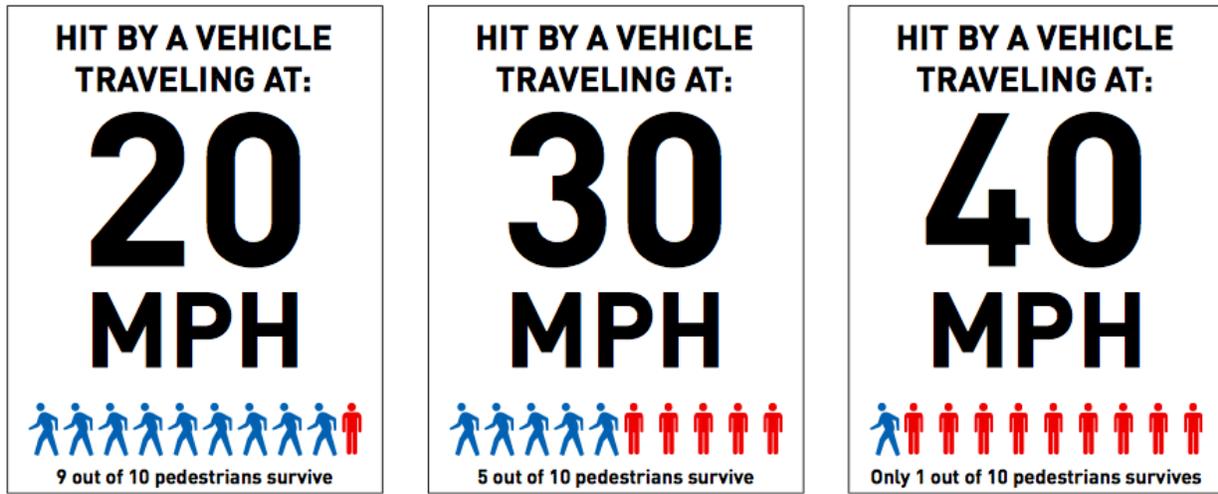


Figure 29 Link Between Speed and Safety



Source: Seattle Vision Zero Plan

A primary goal of Seattle’s Vision Zero plan lies in reducing speeds as a key way of controlling the occurrence and severity of collisions. The speed limit along Delridge Way SW is 35 mph north of SW Trenton Street and 30 mph from SW Trenton Street to SW Roxbury Street. Given the traditional practice of posting a speed that is lower than the speed at which the street is actually designed, many drivers travel faster than 35 mph or 30 mph. Actual speed data collected by SDOT shows that the 85th percentile speed is higher than the posted speed, as shown in Figure 30.

Design Speed

Design Speed > Posted Speed Limit

In 1938, design speed was defined by AASHTO as “the maximum approximately uniform speed which will probably be adopted by the faster group of drivers.” The current practice sets the posted speed at the 85th percentile but bases street design off the design speed, or 100th percentile. This practice accommodates speeding by purposely designing streets for drivers to move faster than the intended speed limit.

SDOT collected speed data over the course of several years along portions of Delridge Way SW. Figure 28 displays the 85th percentile speed and the percent of drivers clocked going over the speed limit by location along Delridge Way SW. In the section of the corridor that has a 30 mph speed limit, speeding occurs most frequently. In some cases more than half of drivers exceed the speed limit.

Figure 30 Motor vehicle speeds

Location (Direction)	Direction & Year	85 th -Percentile Speed	Speed Limit
SW Andover Street (NB)	↑ 2015	34.6	35
SW Andover Street (SB)	↓ 2015	36.3	35

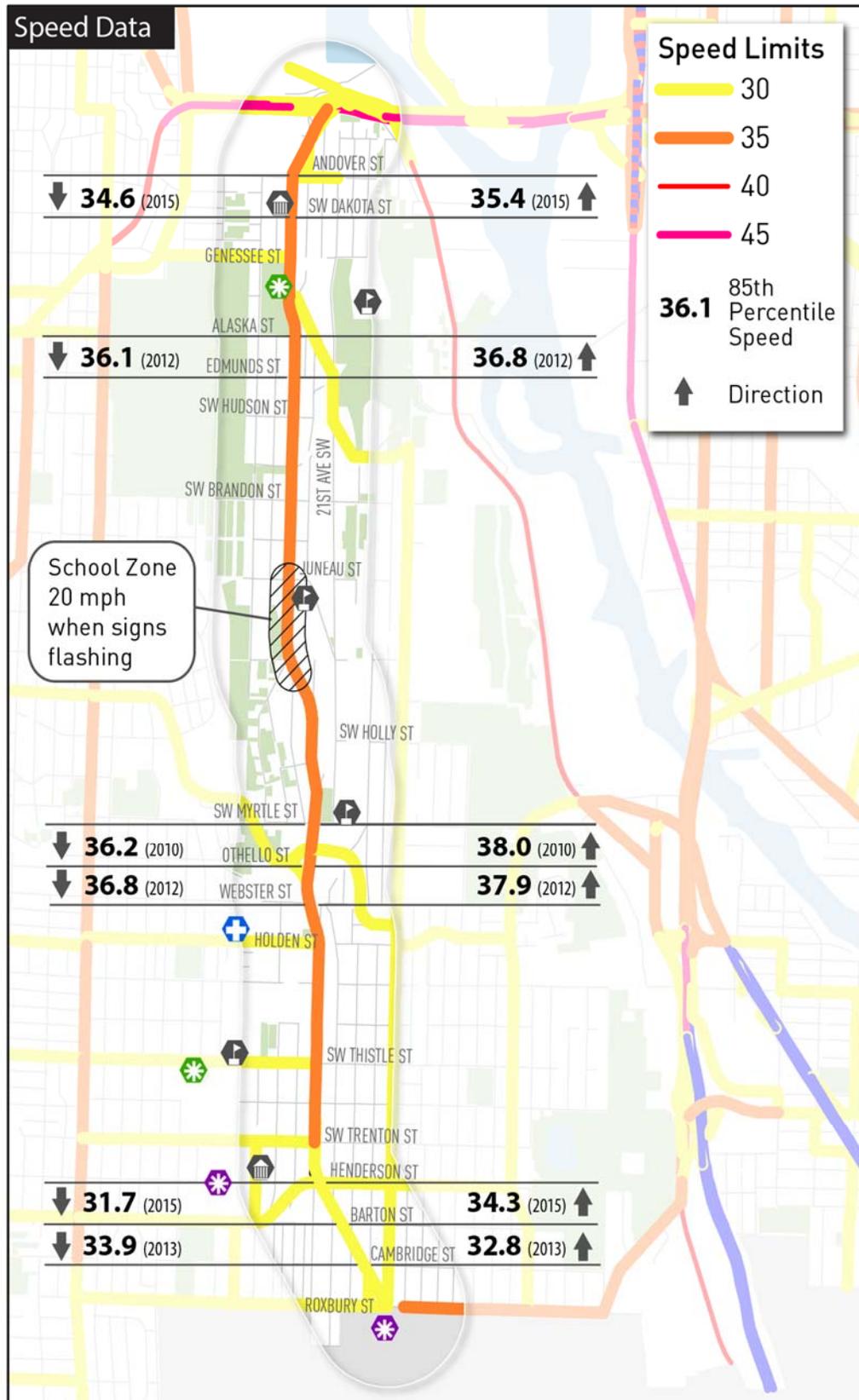
Location (Direction)	Direction & Year	85 th -Percentile Speed	Speed Limit
SW Alaska-Edmunds (NB)	↑ 2012	36.8	35
SW Alaska-Edmunds (SB)	↓ 2012	36.1	35
SW Myrtle-Orchard (NB)	↑ 2010	38	35
SW Myrtle-Orchard (SB)	↓ 2010	36.2	35
SW Orchard-Sylvan Way SW (NB)	↑ 2012	37.9	35
SW Orchard-Sylvan Way SW (SB)	↓ 2013	36.8	35
SW Henderston St (NB)	↑ 2015	34.3	30
SW Henderson St (SB)	↓ 2015	31.7	30
18 th -Cambridge (NB)	↑ 2013	32.8	30
18 th -Cambridge (SB)	↓ 2013	33.9	30



Speed reduction sign on Delridge Way SW southbound, between SW Cloverdale St and SW Trenton St

Source: Google Street View

Figure 31 Motorist Speed



Collisions by Mode

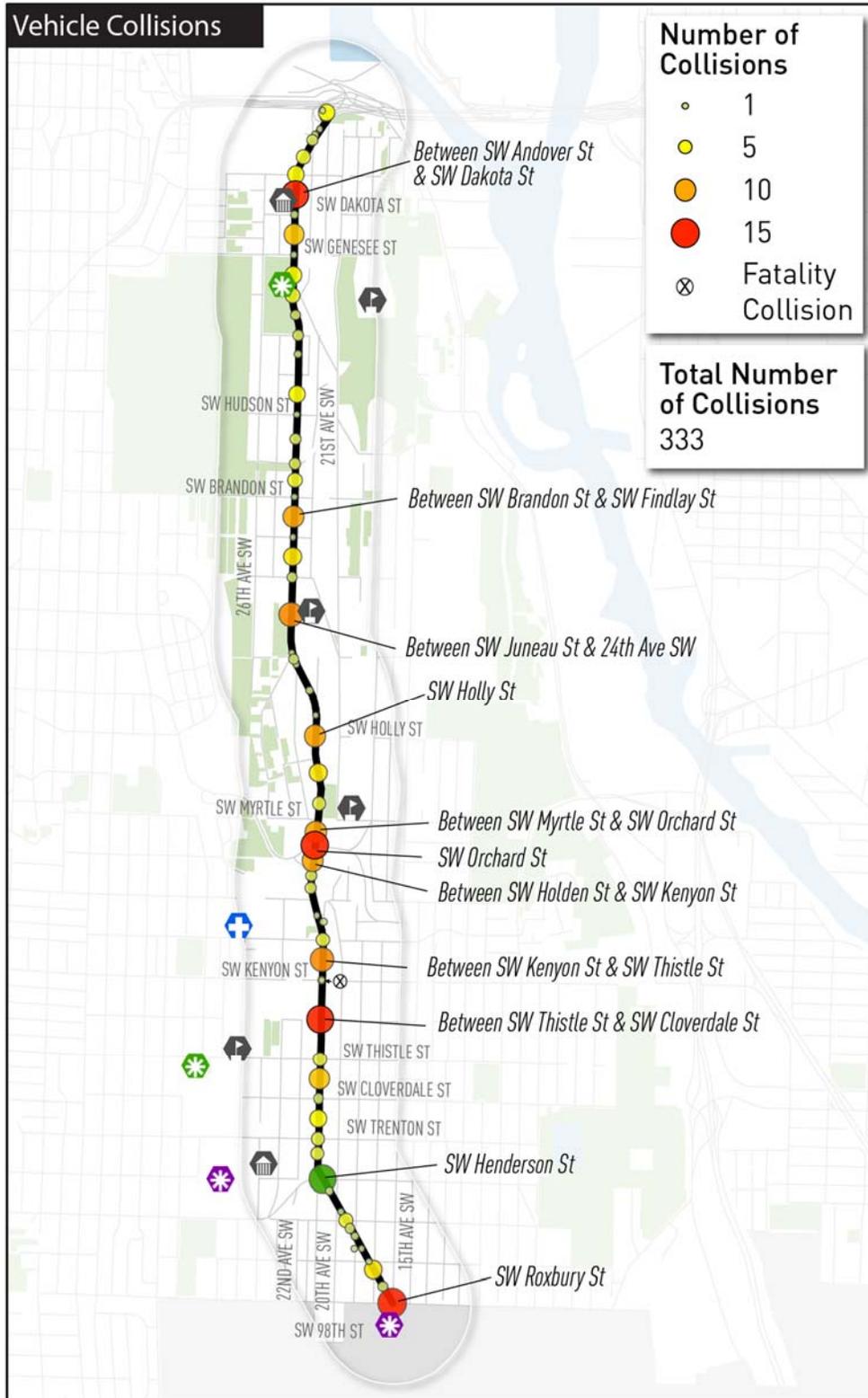
A closer look at police collision reports clarifies the conditions under which collisions occurred and reveals design changes are needed to achieve better safety outcomes.

Collisions Involving People in Cars

The motorists collision analysis revealed several hot spots, illustrated in Figure 32. Key takeaways related to the highest collision locations (four locations with 15 collisions) are listed below.

- **Between SW Andover and SW Dakota Streets.** Nine collisions in this location are the result of rear-end collisions. In this segment, Delridge Way SW has two general purpose travel lanes in each direction. Rear-end collisions may be occurring when drivers are stopped waiting to turn left into retail destinations. A curve in the road at this area also may reduce visibility of stopped traffic.
- **At SW Orchard Street.** Several of the 15 crashes occurred when motorists going in opposite directions struck each other when one was going straight and one turning left. Through this part of Delridge Way SW, the street cross section consists of one lane per direction plus a two-way left turn lane and buffered bike lanes. At SW Orchard Street, motorists on Delridge Way SW also have a protected left turn phase. The potential causes of collisions at this location include drivers becoming impatient waiting for a gap after the dedicated left turn phase is completed, and then miscalculating the proximity of oncoming vehicles.
- **Between SW Thistle and SW Cloverdale Streets.** Delridge Way SW at SW Thistle Street is a signalized intersection while Delridge Way SW at SW Cloverdale Street is stop-controlled (two-way). By SW Thistle Street, Delridge Way SW has narrowed to two lanes per direction plus parking lanes. Three collisions occurred from a moving car hitting a parked car. Four collisions were caused when one driver rear-ended another driver.
- **SW Roxbury Street.** At this complex five-leg intersection, collision descriptions show that the various concurrent turning and straight movements are the primary contributors to crashes here (e.g., a vehicle going left and straight collided, a vehicle turning right and straight collided, etc.).

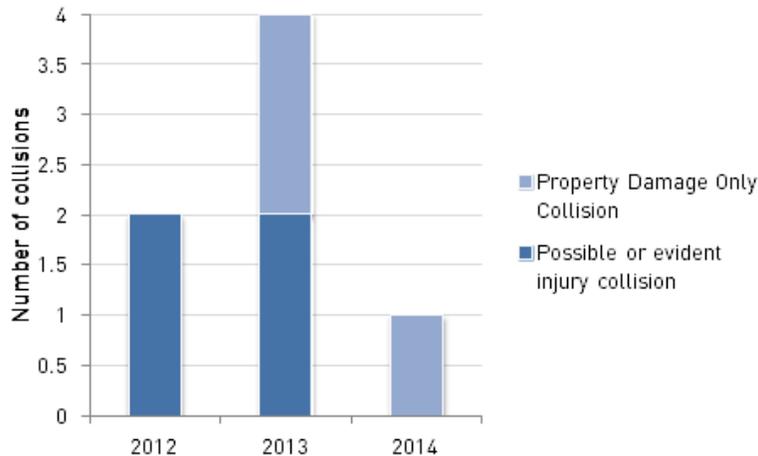
Figure 32 Motorists Collisions



Collisions Involving People Riding Bikes

Of the seven collisions involving people riding bikes on Delridge Way SW, six resulted in injury. Collisions were highest in 2013 (four) and lowest in 2014 (one). Four collisions occurred in the past three years: one at a midblock location, four at intersections, and one at a driveway. Figure 33 shows collisions by severity between January 2012 and December 2014.

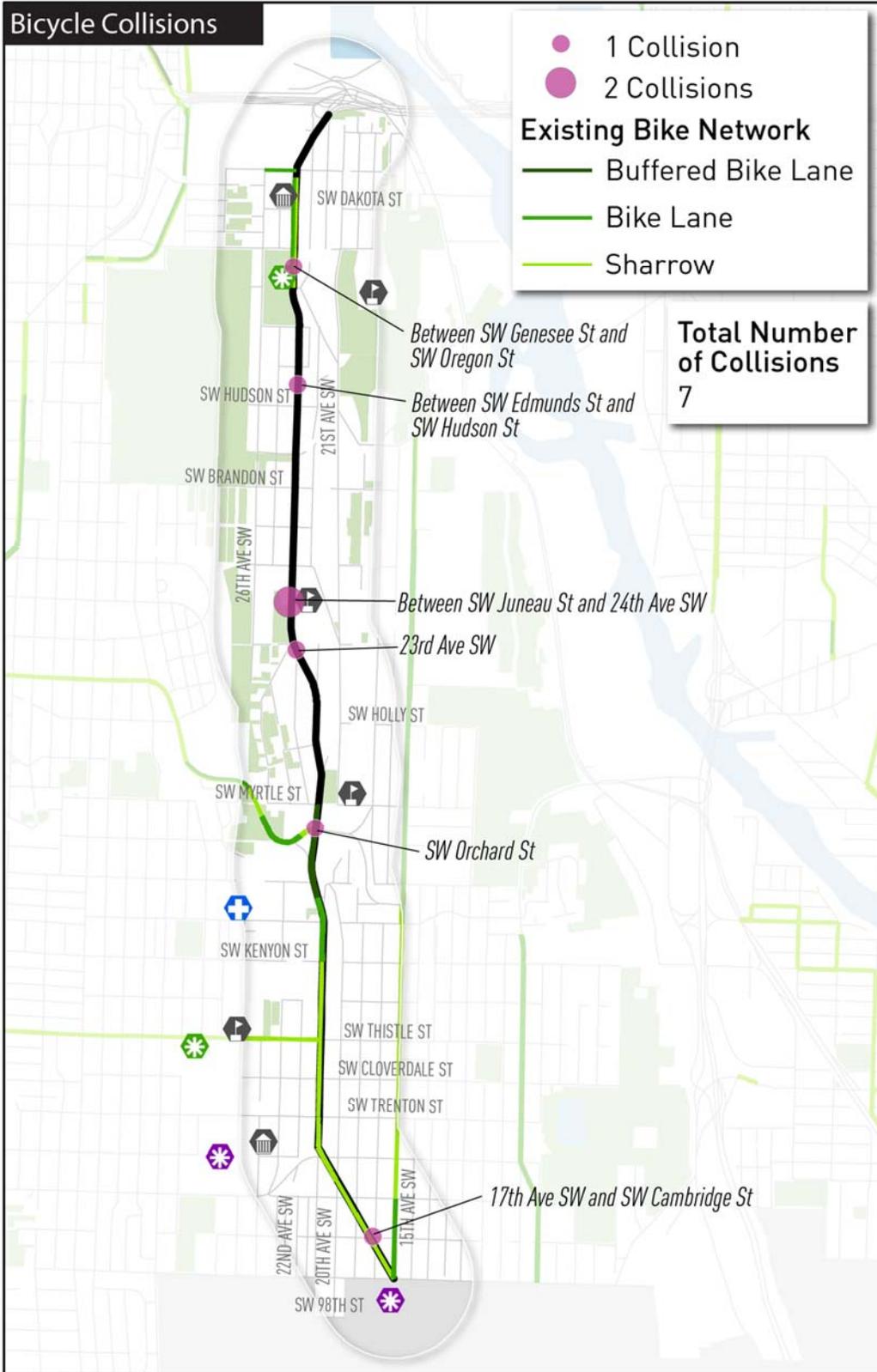
Figure 33 Bicycle Collisions by Severity



Source: Seattle DOT

The segment between SW Juneau Street and 24th Avenue SW clearly stands out as a hot spot, as shown in Figure 34. Unfortunately, this segment is adjacent to two schools—the Stern at Boren Elementary on the east side and the Projeco Saber School on the west side. In seven of the collisions, the motorist struck the person riding a bike with the front of the car; in one case, the opposite occurred and the bicyclist ran into the front of the motor vehicle. In one instance, the collision occurred when a person biking struck a person walking. The intersection at SW Juneau Street is signalized, but 24th Avenue SW is stop-controlled. In fact, there are no signals for a stretch of 2,600 feet south of SW Juneau Street. The next signal southbound is a pedestrian-actuated signal at SW Holly Street.

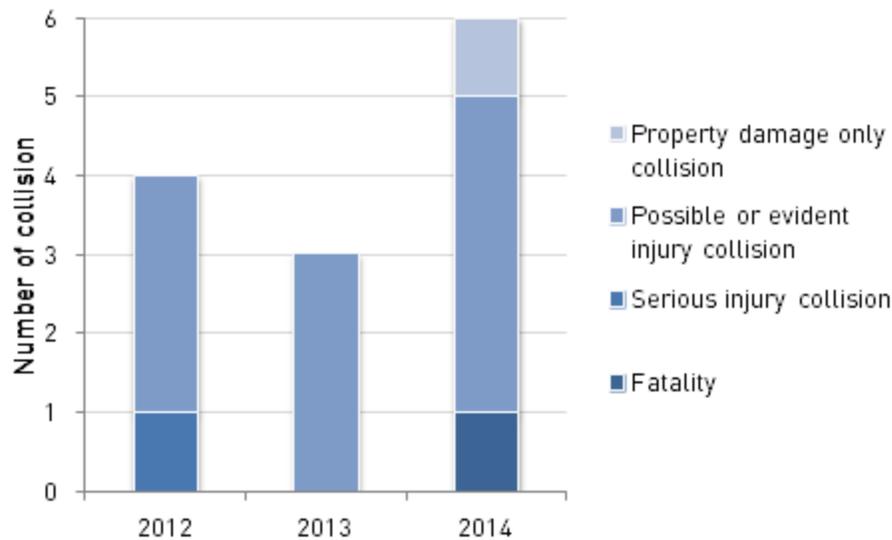
Figure 34 Bicycle Collisions by Location



Collisions Involving People Walking

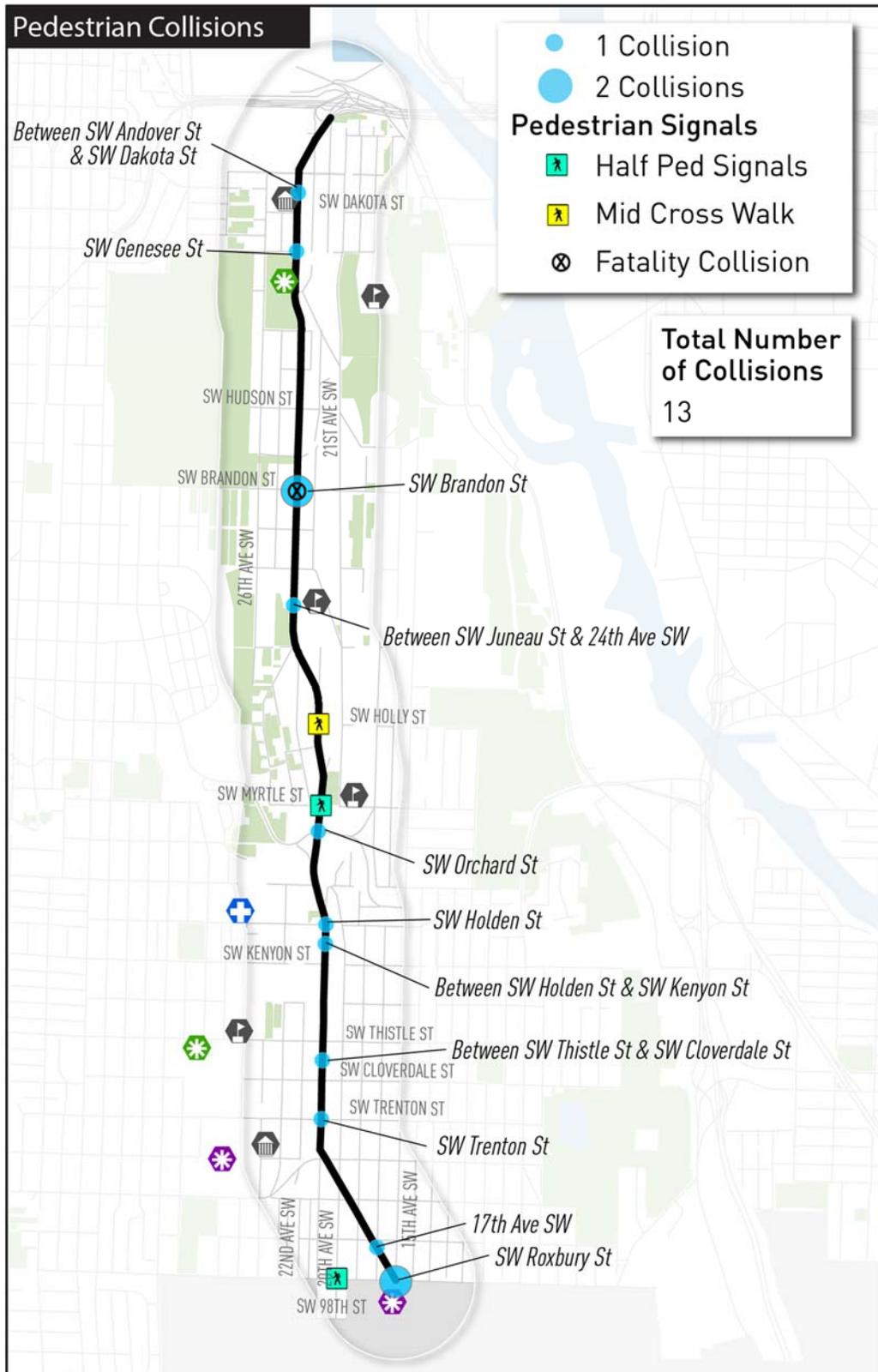
A total of 14 pedestrian collisions occurred between 2012 and 2014. Similar to bicycle collisions, the most occurred in 2014. Ten collisions are intersection related. Collision severity is shown in Figure 35. The vehicle details for the pedestrian collisions for which data is available shows that seven collisions occurred when motorists were being driven straight ahead; three while the driver was making a left turn, and two during a driver right turn.

Figure 35 Pedestrian collisions by severity



Unlike bicycle collisions, pedestrian collisions occurred throughout the corridor, as shown in Figure 36. The one fatality occurred at Brandon Street in 2015. This location is signalized, with faded crosswalk striping.

Figure 36 Pedestrian collisions by location



4 OPPORTUNITIES AND CONSTRAINTS

Delridge Way SW and the neighborhoods it threads are experiencing new development and increased private investment. The Delridge Action Plan and other City and community-based initiatives are building momentum to establish a resilient, vibrant, and healthy corridor. Reinvesting in a multimodal Delridge Way SW will help to move more people safely along and across the corridor, while supporting the growth and demand for vibrant community development.

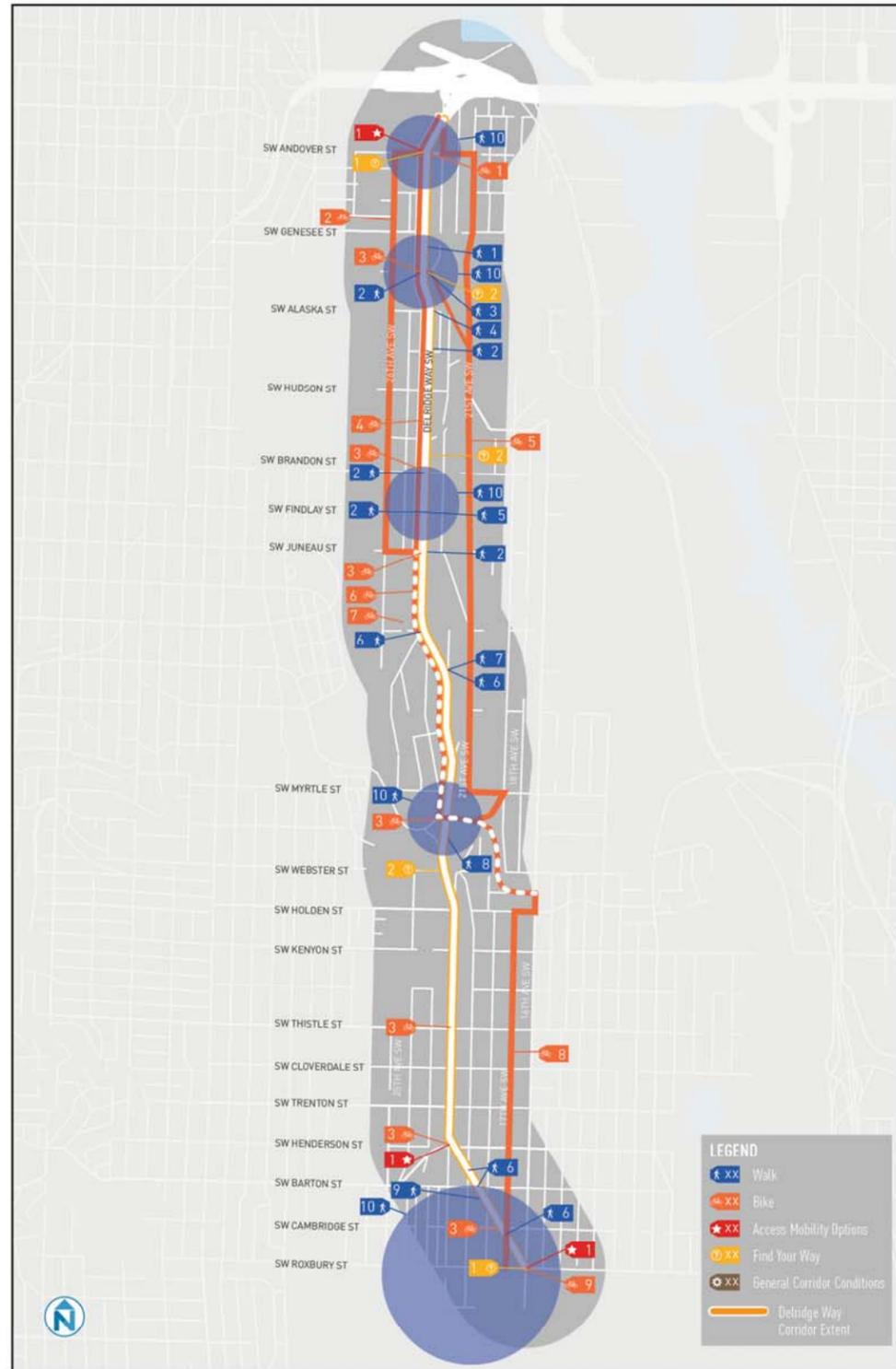
While numerous opportunities exist to progress the goals of the corridor, several constraints need to be addressed in the design and operation of Delridge Way SW. Figure 37 and Figure 38 summarize these key opportunities and constraints by active and motorized travel modes. The following bullets provide a high level summary of what can be built upon and what limitations exist that threaten SDOT from developing a multimodal corridor.

- **Narrow right-of-way.** Delridge Way SW narrows considerably at the south end of the corridor. This presents challenges as SDOT looks to integrate facilities for multiple modes, requiring difficult trade-offs to achieve the key objectives of the corridor and the surrounding community.
- **Disconnected street grid.** Limited street connections and steep topography limit the linkages to the neighborhoods immediately west of Delridge Way SW. This is particularly punitive for people that would like to walk or bike to land uses to the west of the corridor.
- **Urban design and placemaking.** Many businesses either have small parking lots or are street fronting. Even though this corridor grew during the advent of car-centric development patterns in Seattle, limited big box or other auto-oriented land uses with large setbacks are present today. The corridor's built form signals that public investments along Delridge Way SW can have an immediate impact on how people access the corridor, rather than relying on the private development community to re-orient buildings toward the street. The corridor's diverse communities have established a strong sense of place that should carry through the design of Delridge Way SW. The corridor's sense of place can also be reinforced and celebrated through adaptive street programming.
- **Walking environment.** Many areas have clearly defined sidewalks zones with verdant parkway buffers, providing protection from motor vehicle traffic. Commercial areas along the corridor are generally walkable. Modest investments in pedestrian enhancements could transform the corridor into a walkable destination.
- **Trail assets.** Direct access to the Longfellow Legacy Creek Trail from multiple points along Delridge Way SW provides a unique natural asset and recreational opportunity for the community. Connections to the trail network could be enhanced as a supplemental parallel route for people walking and biking along the corridor.
- **Transit connections and passenger amenities.** King County Metro's Route 120 on Delridge Way SW currently offers fast and direct connections to Downtown Seattle with

planned extension to South Lake Union. Enhanced passenger amenities and transit priority improvements will improve the corridor's level and quality of service, attracting more people to King County Metro's services and thereby freeing up capacity for other modes. While King County Metro provides frequent transit service to and from downtown Seattle, limited east-west transit connections isolate Delridge Way SW from neighborhoods to the east and west of the corridor.

- **Automobile travel and parking.** Motorists and freight trucks enjoy relatively free-flowing traffic conditions for over 22 hours of the day. The AM and PM peak travel periods present moderate congestion levels at only three intersections. Roadway geometry and skewed intersections enable higher speeds and create conflicts between motorized vehicles and the corridor's most vulnerable users—people walking and biking. The intersection of Delridge Way SW and SW Roxbury Street is a particularly complex and multi-legged junction with signal timing that is unfavorable to people walking and riding bikes. Signal enhancements, network solutions, and other geometric design solutions throughout the corridor would manage speeding and conflicts.

Figure 37 Opportunities and Constraints for Active Transportation



Delridge Way SW Opportunities and Constraints - Active Transportation

Walk

- 1 Substandard sidewalks on the east side of SW Genessee St for half block.
- 2 Opportunity to add curb extension(s).
- 3 Existing pedestrian overpass at SW Oregon St should be supported by an at-grade crossing as well (adjacent to community center/playing fields).
- 4 Need safe pedestrian crossing at SW Alaska St.
- 5 Existing crosswalks are not supported by a signal to help pedestrians cross. Need pedestrian-actuated signal at SW Findlay St.
- 6 Potential to realign intersection legs, shorten pedestrian crossings, and build curb extensions.
- 7 Need pedestrian crossing with pedestrian-actuated signal at SW Graham St.
- 8 Substandard sidewalk on the east side of street between 21st Ave SW and Sylvan Ave SW/SW Orchard St.
- 9 Substandard sidewalks from SW Cambridge St to 18th Ave SW (1 full block on west side, half block on east side).
- 10 Potential to pursue adaptive street opportunities that increase street activity and support land use development.

Bike

- 1 Needs facility to improve connection to West Seattle Bridge and RapidRide.
- 2 Strengthen and connect neighborhood greenways on 26th Ave SW from SW Andover St to SW Juneau St.
- 3 Crossbike or other enhanced bike crossing treatment (e.g. signal improvements, bike boxes, conflict markings, two-stage crossings, etc.).
- 4 Limited space for designated protected bike lane from West Seattle Bridge to SW Orchard St.
- 5 Strengthen and connect neighborhood greenways on 21st Ave SW from SW Andover St to SW Orchard St.
- 6 Potential protected bike lane from SW Juneau St to SW Orchard St serving as an all ages and abilities connector between neighborhood greenways.
- 7 Opportunity for trail connection.
- 8 Strengthen and connect neighborhood greenways on 16th Ave SW from SW Orchard St to Delridge Way SW.
- 9 Complex intersection for people riding bikes.

Access Mobility Options

- 1 Potential Mobility Hub with access to RapidRide, car share, high capacity and secure bike parking, integrated/dynamic digital information, and potentially Pronto bike share.

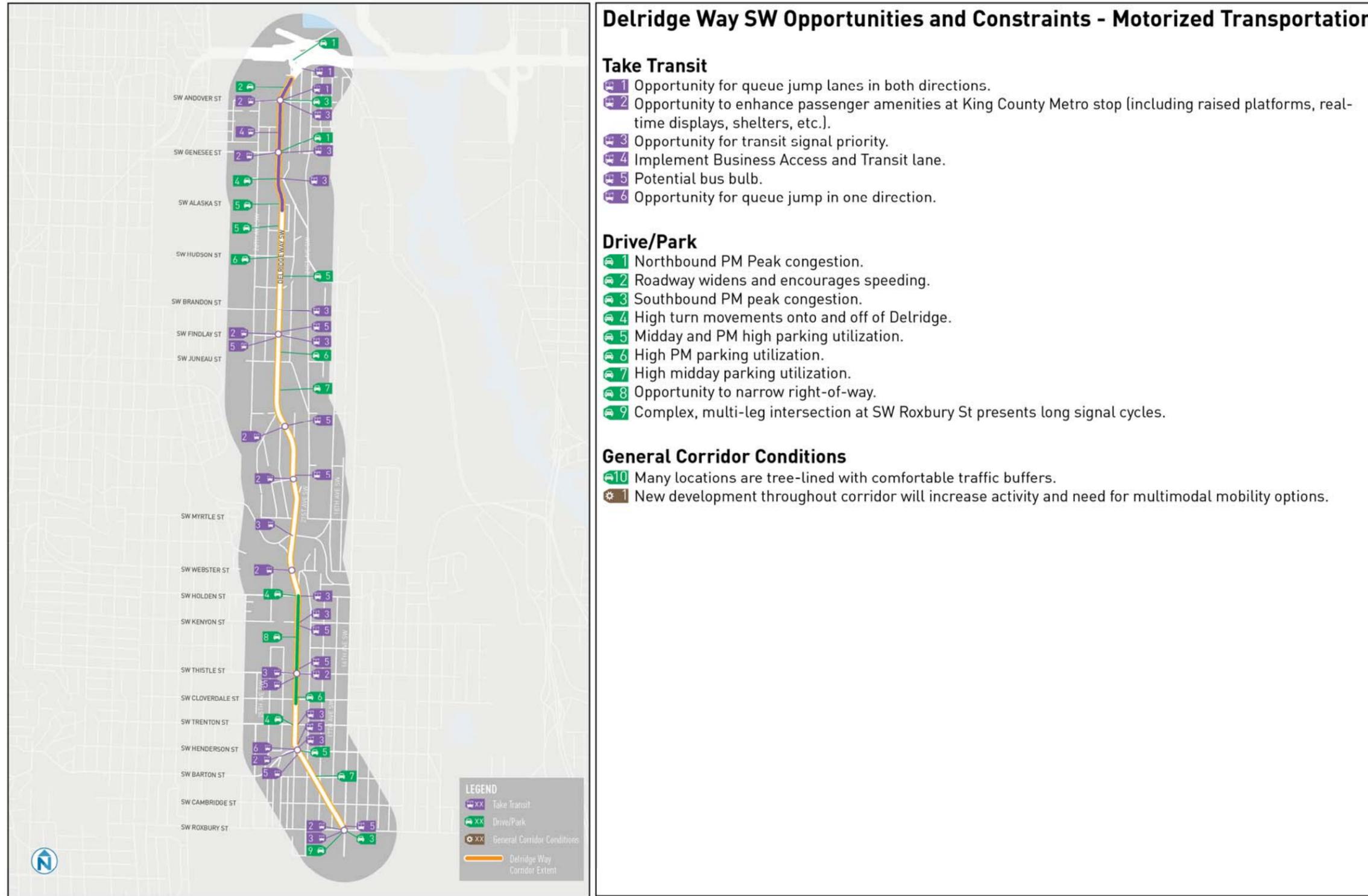
Find Your Way

- 1 Opportunity for gateway corridor identity and wayfinding.
- 2 Neighborhood branding opportunity.

General Corridor Conditions

- 1 New development throughout corridor will increase activity and need for multimodal mobility options.
- 11 Opportunity for pedestrian-scaled lighting along the entire corridor.
- 12 Many locations are tree-lined with comfortable traffic buffers.
- 3 Opportunity for corridor-wide pedestrian and bicycle wayfinding.

Figure 38 Opportunities and Constraints for Motorized Transportation



5 KEY FINDINGS FROM PUBLIC ENGAGEMENT

Streets are public spaces; therefore, any such plan of this nature must gather extensive input from the people who live, work, or travel along Delridge Way SW.

As part of the existing conditions phase of the project, SDOT conducted outreach in three ways:

- Briefings and presentations to neighborhood groups and citywide advisory boards
- A public workshop at the Southwest Teen Life Center on June 6, 2015
- An interactive online survey and mapping tool yielding 667 responses

This section highlights key findings from engagement efforts. The full engagement report can be viewed in Appendix B.



Participants studied boards (left) and participated in small group discussions (right) at the Delridge Way SW Public Workshop

Source: Nelson\Nygaard

Key Findings

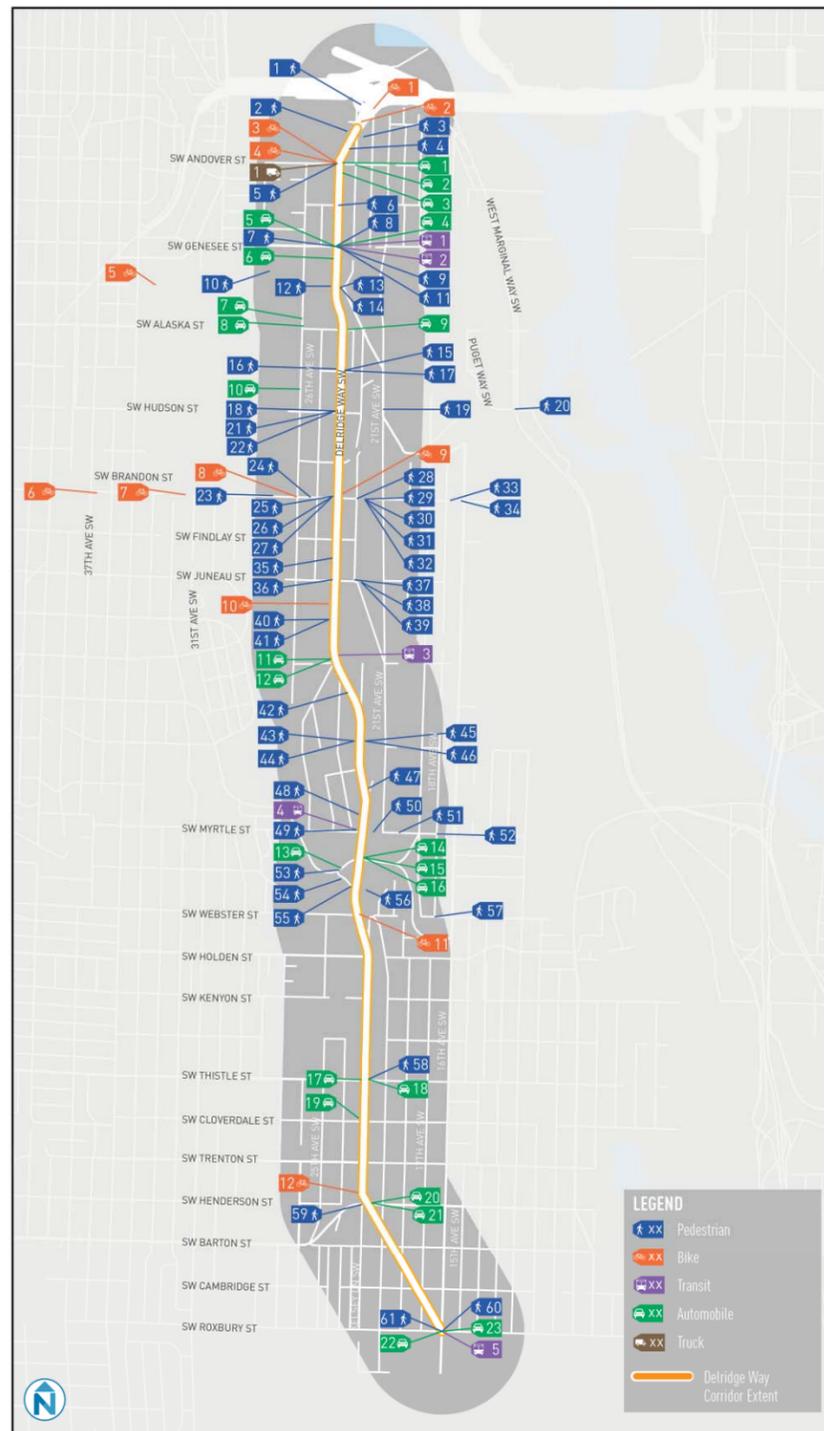
- **Safety:** People feel safest driving along the corridor, and least safe bicycling; however, a large percentage of participants wish they could take transit, walk, and bicycle, showing that lack of safety is a major deterrent to multimodal usage.
- **Transit:** Participants expressed support for the addition of a RapidRide Line along Delridge Way SW to supplement, but not replace, Route 120, which is often overcrowded. Better transit connections to places other than downtown Seattle would assist in neighborhood circulation. Participants strongly desire measures that ensure bus reliability and fast travel times.
- **Speed limits:** Mixed reactions appeared regarding the idea of reducing the speed limit from 35 to 30 mph. Maintaining travel times along the corridor emerged as a high priority;

however, an equal number of participants called for reducing vehicle speeds to make walking and bicycling more enjoyable.

- **Bicycle network:** The majority of those who commented expressed support for developing bike lanes or Greenways on parallel streets, not on Delridge Way SW. People said that Delridge Way SW is already too crowded with other uses and the combined parking/bike lane along the street is unsafe. “Create neighborhood greenways (parallel residential streets prioritized for walking and biking)” was ranked third highest for improving accessibility and connectivity in the corridor in the online survey. Still, a number of workshop participants still call for bicycle facilities on Delridge Way SW itself, especially for more experienced cyclists, given that it is the most direct route.
- **Pedestrian environment:** Participants repeatedly mentioned the need to add new crossings and improve existing ones, particularly around schools, at bus stops and at Youngstown Cultural Arts Center. The staircases require better lighting and maintenance to increase safety.
- **Street design & maintenance:** Additional landscaping and more maintenance and cleanup are needed along the corridor – many stated that the condition of Delridge Way SW’s roadbed is poor. Opportunity exists to create better functioning intersections through changes to traffic signal timing and turning lanes at points where Delridge Way SW intersects with SW Andover, SW Thistle and SW Orchard Streets.
- **Business environment:** This project should support commercial vibrancy in the area by encouraging more businesses, including restaurants and grocery stores, to create a sense of community and reduce crime.

Comments related to a specific place on the corridor have been folded into the online wikimapping tool. The results of the wikimapping exercise are summarized in Figure 39.

Figure 39 Summary of Public Wikimap Comments



Delridge Way SW Public Engagement

Pedestrian

- 1 Need to add lighting and trim landscaping to improve the walkway along the West Seattle Bridge on-ramp. I'd rather look at the steel mill and have workers see the path than have the existing claustrophobic feel.
- 2 Need better access to shared parking opportunities.
- 3 We need an overpass from the Spokane Street bike/pedestrian trail to get across Delridge and past Andover to the 26th Ave SW Greenway.
- 4 Bigger place making effort with pedestrian lighting, art and landscaping to slow people down and identify Delridge.
- 5 Difficult crossing.
- 6 New crossing needed.
- 7 Genesee right or way staircase needs more lighting.
- 8 Genesee stairs need maintenance.
- 9 Genesee Hill climb stairs need more clearing around them, lighting, a better landing pad at Delridge and sidewalks at the top to 21st.
- 10 More permeability by foot between Delridge and 35th/Avalon through Camp Long and West Seattle Golf Course.
- 11 New crossing needed.
- 12 Controlled crossing at Oregon [needed]; overpass bad.
- 13 Uncomfortable for pedestrians.
- 14 Raised crossing or special paving is needed to create a better at-grade crossing of Delridge and 23rd at it intersects with Delridge. Curb bulbs could work.
- 15 Need safe crossing at Edmunds to bus stop.
- 16 Need crosswalk.
- 17 Bad to cross; restrict parking near intersection.
- 18 Need crosswalk.
- 19 The narrow sidewalks along a narrow road make biking and walking treacherous.
- 20 The Duwamish River Opportunity Fund may finance the construction of a walking trail from the South Seattle College/Chinese Gardens to its outlet on West Marginal Way SW from what some call "Burien Way" [currently a trail], quite close to Puget Way SW. A gravel path or sidewalk would be useful to broach this 200 ft stretch along West Marginal from the trail outlet to Puget Way so that there is safe access to the Duwamish Longhouse.
- 21 Need crossings at Hudson and Edmunds.
- 22 Need crossings at Hudson and Edmunds.
- 23 A few years ago, a sidewalk was added to one side of 30th Ave SW between Juneau St and Brandon St, but at Brandon Street there is no sidewalk from 30th to 26th Ave. As a result, pedestrians are forced to walk in the street [or the unpaved, unlit trail in the woods]. With the volume of car and people this is flat out dangerous. While the recently added speed bumps help a little, it is still unsafe.
- 24 Complete sidewalks to link people to transit, library, Longfellow Legacy Trail, parks.
- 25 New crossing needed.
- 26 Difficult to cross/ doesn't feel safe.
- 27 No sidewalk getting to bus stop [along SW Brandon, east of Delridge].
- 28 Consider stairwell at Brandon.
- 29 Stairway needed between 23rd SW and 21st SW.
- 30 Stair connection on SW Brandon between 23rd and 21st.
- 31 Puget Ridge neighborhood needs a stairway-walking connection to the Delridge business district/ grocery, and sidewalk improvement from the stairway to the Library on Delridge.
- 32 Stair connection on SW Brandon between 16th and 17th.
- 33 Stairway needed.
- 34 West Seattle Bridgeneeds east/west stairway improvements to connect neighborhoods to bus access, South Seattle College, Chinese Garden, and a proposed trail to the parks and Longhouse on the Duwamish River. Nature walks for a livable city.
- 35 Delridge Way businesses need visible on-street parking because there will never be enough people within walking distance to support them.
- 36 Sidewalk Improvements needed from Juneau to Puget.
- 37 Need crosswalk at 23rd and SW Juneau St.
- 38 Unsafe to walk here.
- 39 Improve Juneau St staircase between 23rd and 19th, e.g. add bike runners, fix the lights, and remove overgrowth.
- 40 No crosswalk in front of STEM school - kids run across.
- 41 Stair is overgrown.
- 42 Improve look of Delridge add street trees and medians.
- 43 Pedestrian signal at Holly takes too long to get a WALK sign.
- 44 Need RRFB or similar for crossing.
- 45 Holly Staircase - needs lighting and landscaping [cut back weeds].
- 46 Stair at Holly needs light.
- 47 Crossing on Delridge needs to be clearly marked. Drivers don't stop for pedestrians, not safe. The sidewalks on the east side of Delridge is over grown or nonexistent.
- 48 The sidewalks on the east side of Delridge is over grown or nonexistent.
- 49 New crossing needed.
- 50 Myrtle stairs and crossing at myrtle need improvements.
- 51 Lighting needed.
- 52 Safety lighting [needed].
- 53 A sidewalk is needed so pedestrian don't have to walk on the street.
- 54 Sylvan Way connection isn't needed, should be vacated.
- 55 Need better crossing by Home Depot and better access to transit stops.

Bike

- 1 Keep grade separated (Pigeon Point path) and bypass Andover intersection altogether - link Alki trail.
- 2 Better bike connection to the bridge.
- 3 No safe way for bikes/pedestrians to get onto new path - heavy trucks.
- 4 New path at SW Andover good. Getting on at H&R Block hard, must use ADA ramp [connect] with pedestrians.
- 5 NW corner of Camp Long is overgrown weeds and marshy land with simple [illegal?] footpath: create a new path running approximately NE/SW thru NW corner of Camp Long for biking and walking because it is a gentler uphill grade and no cars: a bike commute and pedestrian pathway along the least steep slope in an unused area.
- 6 The connection to High Point at 35th is very steep. Bikes will wobble uphill and need space to be safe. Downhill it is important that the road is clean so that the front tire doesn't wash out on gravel as you hit the front break.
- 7 Greenway [noted along Camp Long/ West Seattle Golf Course].
- 8 Build recreational trail [bikers, pedestrians] between the West Seattle Golf Course and Camp Long. Brandon to 35th, connecting North Delridge to the Junction.
- 9 Current bike lane ends at Brandon. What are cyclists supposed to do?
- 10 I'd like to see roadside rain gardens and other infiltration of storm water runoff to reduce the rates of pre-spawn mortality in the nearby creeks and the pollution loading to the Duwamish.
- 11 There are long linear cracks in the pavement (maybe underlying cement panel joints or cracks) that swallow tires and require bikes to swerve around them to avoid.
- 12 Bike lane also feels unsafe with all the commuter traffic.

Transit

- 1 Major bus stop; unsafe.
- 2 Many people need to transfer from route 50 to 120/125, but the light is so long that there really needs to be a stop on Genesee so people don't miss their bus.
- 3 Sight line issues, bus stop relocation recommended.
- 4 Bus stop [needed].
- 5 Need new bus stop facelift.

Automobile

- 1 Need better sign to West Seattle Bridge.
- 2 Reducing Delridge to one lane northbound at Andover has caused mile long backups in the morning. Put this back to 2 lanes.
- 3 Traffic gets clogged at that intersection, and it's dangerous for vehicles, pedestrians, bicyclists turning left on Delridge to Andover in both directions.
- 4 Long light at Genesee; to avoid it, drivers cut through on 26th or 25th and come out at Dakota, then drive in median to the bridge.
- 5 At Genesee, people get into the left turn lane too early; conflicts with Youngstown
- 6 Center turn lane not needed Genesee to Orchard.
- 7 Recommend putting speed bumps on SW 26th Ave.
- 8 Recommend putting a traffic circle at SW 26th Ave and SW Alaska St.
- 9 Truck parking reduces visibility.
- 10 Traffic circle at SW 25th and SW Hudson St because there's lots of car accidents.
- 11 24th & Graham bus stop is now far side, impedes driver visibility.
- 12 School flashing signs mean speed limit drops to 20 mph; if you are turning onto Delridge from 24th, driver cannot tell if it's a school zone time; not sure how fast to go.
- 13 Improve traffic light timing at Orchard & Delridge.
- 14 Add right turn at Delridge and Orchard.
- 15 Reducing southbound to one lane on Delridge at Orchard has caused long backups during the evening commute. Please return to 2 lanes at this intersection.
- 16 Add controlled left on Orchard as you cross Delridge.
- 17 Need left turn pocket on northbound Delridge at Thistle.
- 18 Left turn pocket at Thistle.
- 19 Please preserve on-street parking between Thistle and Trenton [along Delridge Way].
- 20 Need left turn arrows.
- 21 Difficult to turn in a car.
- 22 Confusing stop signs [noted along SW 16th Ave, between SW Roxbury and SW Cambridge St].
- 23 Widen the street; narrow.

Truck

- 1 The semis coming up Andover from the steel mill, to turn north to the West Seattle Bridge, slow down traffic to the bridge, as there may be only that truck that gets through that traffic light.

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6 CONCLUSION

Delridge Way SW is a multi-functional street, providing circulation and access for all modes while serving as a community gathering place. As a multimodal corridor of regional significance for the city and King County, Delridge Way SW acts as one of two critical north-south routes connecting people between West Seattle Bridge, White Center, and beyond to Burien. While people walk, access transit, drive, and bike along this corridor, Delridge Way SW's current design does not reflect the diverse needs of its users. With exception of a few segments (e.g., near Roxbury and between SW Holden and Myrtle Streets), Delridge Way SW is heavily oriented toward motor vehicle travel, creating challenging conditions for walking, biking, and transit operations.

The neighborhoods that line Delridge Way SW are highly engaged and hungry for change. Community members that participated in the public workshop, online survey, and mapping tool—as well as the North Delridge planning process—believe that Delridge Way SW's future design and operation should consider the needs of all users, while achieving the social, economic, recreational, and environmental objectives of the community it bisects. Based on the review of existing corridor conditions and consultation with the public, the Delridge community desires a safer Delridge Way SW. Better and more crossings, faster and more reliable transit service, and safer bicycle facilities are priorities for community members.

The recently amended Transit Master Plan prioritizes the Delridge Way SW corridor for future RapidRide investments, including enhancements to speed, reliability and passenger amenities. One of the challenges to developing new higher capacity transit connecting the neighborhoods lining Delridge Way SW to downtown Seattle is moderate levels of traffic congestion at key intersections. Spot transit priority improvements are needed to increase the person carrying capacity of the corridor and to encourage more people to take transit.

The analysis and findings from this existing conditions report will inform the development and evaluation of design alternatives for the Delridge Way SW corridor in 2016.

APPENDICES

Appendix A SDOT Multimodal Corridors – Delridge Level of Service Analysis

Appendix B Public Engagement Report

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