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## INTRODUCTION

The City of Seattle, through the Seattle Department of Transportation (SDOT), is intending to develop an all ages and abilities connection for people walking and riding bicycles between the Georgetown and South Park neighborhood centers. The city has produced reports on mobility, open space, and opportunities for improvements across city departments including the Georgetown Mobility Study, 2017 and the Open Space Vision and Framework, 2017 which were referenced in the Duwamish Valley Action Plan in June of 2018. The Georgetown Mobility Study, by SDOT, documented the need for a connection between the Georgetown and South Park neighborhood centers as a high priority and identified two future projects:

- 1. A feasibility assessment to study potential alignments.
- 2. Final design and construction of the preferred route.

This project report documents the findings of the feasibility assessment and study of potential alignments.

#### STUDY AREA

The study area for the project extends from the Georgetown neighborhood center south to the South Park Bridge, which is located just north of the South Park neighborhood center. The South Park Bridge opened in 2014 with new sidewalks and on-street bike lanes on both sides of the street, connecting people walking and cycling to the South Park neighborhood center.

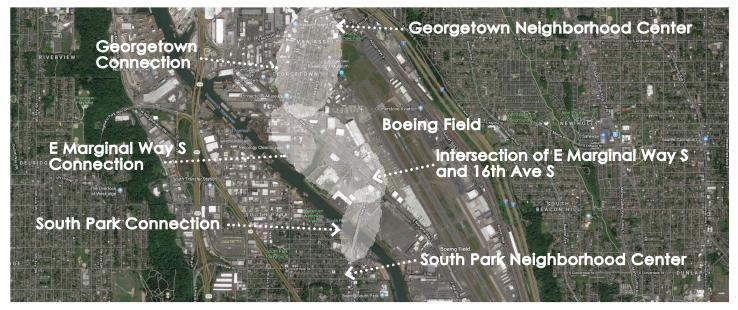
Potential alignments addressed in this report are discussed and evaluated as three segments:

South Park Connection – from the intersection of 14th Ave S and Dallas Ave S to the intersection of 16th Ave S and E Marginal Way S.

<u>E Marginal Way S Connection</u> – from the intersection of 16th Ave S and E Marginal Way S to the intersection of Ellis Ave S and S Myrtle St.

Georgetown Connection – from the intersection of Ellis Ave S and S Myrtle St to the intersection of S Bailey St and 12th Ave S.

Figure 1 - Study area: South Park Bridge to Georgetown Neighborhood Center



## THE SOUTH PARK NEIGHBORHOOD

The City of Seattle's Outside Citywide initiative published a South Park Neighborhood Profile in February 2019. This summary notes how residents have dedicated significant time and energy in recent years to identifying and addressing community priorities for a variety of issues. The community's priorities as it relates to mobility and transportation are: providing safe pedestrian and bicycle routes, traffic calming and safety along trucking routes and speedways, and creating a comfortable street edge environment.

The South Park bridge constructed in 2014 provides improved access for all modes to and from South Park and the Duwamish Trail also provides recreational access to and from the neighborhood.

The map of South Park's neighborhood center shown in Figure 2 below identifies trail and transportation connections and the location of neighborhood parks.

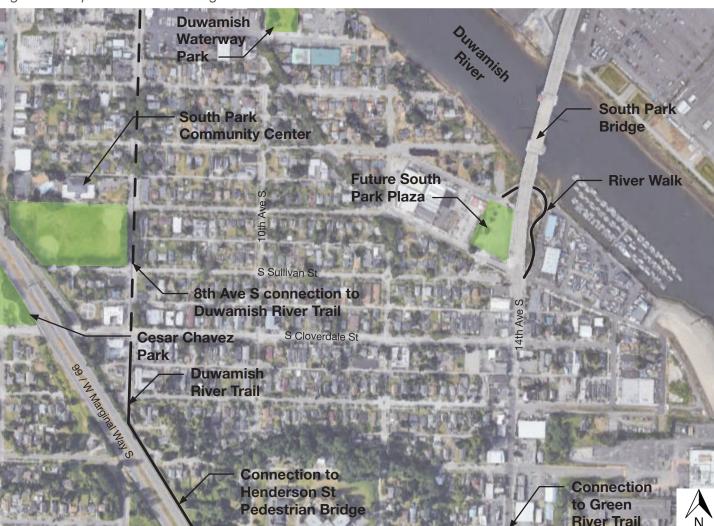


Figure 2-Map of South Park Neighborhood

## THE GEORGETOWN NEIGHBORHOOD

The Georgetown neighborhood has gone through several recent planning initiatives, including the Georgetown Mobility Study and Open Space Vision and Framework Plan, to document opportunities to improve neighborhood connections, safety, and access to and from services and stores in the neighborhood center.

The map of Georgetown's neighborhood center shown in Figure 3 below identifies neighborhood parks, including the Georgetown Festival Street. The neighborhood center does not have any all ages and abilities facilities for people riding bicycles.

To Georgetown Playfields Georgetown **Festival Street** Access to from I-5 Georgetown Old City Hall **Ruby Chow** Oxbow Park Park South Seattle College

Figure 3-Map of Georgetown Neighborhood Center

## **EXISTING TRANSPORTATION NETWORK**

As a part of this feasibility assessment we have reviewed Seattle's Streets Illustrated and Right-of-Way Improvement Manual to document transportation characteristics along potential routes within the study area. The following paragraphs summarize characteristics of key arterial streets from Streets Illustrated maps. Key streets within the study area include: 16th Ave S, E Marginal Way S, Ellis Ave S, S Myrtle St, and S Albro PI.

The feasibility assessment also included reviewing the SDOT Bicycle and Pedestrian Safety Analysis (BPSA), completed in 2016, which identified locations to prioritize safety improvements for people walking and riding bicycles. The BPSA identified high-ranking pedestrian and bicycle locations to focus non-motorized improvements; however, none of the identified locations are located along potential alignments described in this report.

#### **Street Classification**

The functional classification of a street focuses on use and operation (i.e. arterial, non-arterial, etc). The most direct route between the neighborhoods is on principal arterials, which carry heavy volumes of vehicle traffic. These arterials are not a comfortable route for users of all ages and abilities without a dedicated bicycle and pedestrian facilities separated from the roadway. The following arterials are located in the project area:

- <u>Principal Arterial:</u> 14th Ave S, 16th Ave S, E Marginal Way S, Ellis Ave S (south of S Albro PI), and S Albro PI
- Minor Arterial: Corson Ave S and S Myrtle St (between E Marginal Way S and Ellis Ave S)

#### **Street Type**

The City of Seattle's designation of street type is based on the adjacent land uses and envisioned character of the street and is used as a guide for both future development and capital infrastructure projects. The project area includes the following street types:

- <u>Urban Center Connector:</u> Ellis Ave S (north of S Warsaw St), S Albro Pl
- <u>Industrial Access:</u> 14th Ave S, 16th Ave S, E Marginal Way S and Ellis Ave S (south of S Warsaw St)
- Minor Industrial Access: S Myrtle St (east of Ellis Ave S).



#### **Freight Routes**

Freight routes are arterial streets that serve truck mobility and connectivity; the freight network designation considers land uses that serve trucks. Key freight routes through the project area include 14th Ave S, 16th Ave S, and E Marginal Way S (major freight route); S Bailey St (limited access route); and S Myrtle St between E Marginal Way S and Ellis Ave S (industrial freight route).

#### **Transit Routes**

Streets that serve bus routes in the study area include: 14th Ave S, 16th Ave S, E Marginal Way S, Ellis Ave S (south of S Albro Pl), S Albro Pl, and 13th Ave S.

#### Sidewalk Conditions

Many streets in the project area lack sidewalks and/or have obstructions that limit user's access and mobility; a map in the Georgetown Mobility Study documents sidewalk obstructions and streets with missing sidewalks.

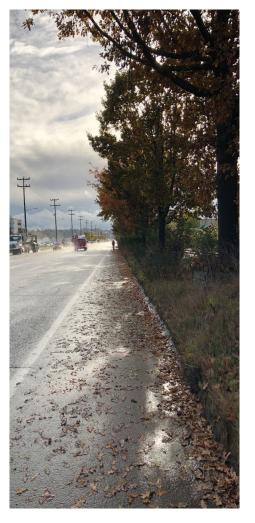
#### **Existing Bike Network**

There are conventional bike lanes on S Albro PI, Ellis Ave S, E Marginal Way, 16th Ave S and 14th Ave S in the study area; however, with the level of freight use, vehicle volumes, and traffic speeds, these bike lanes do not provide adequate protection for people of all ages and abilities as defined in the Seattle Bicycle Master Plan.

#### **Proposed Bike Network**

Proposed bicycle facilities shown in the 2014 City Bicycle Master Plan include protected bike lanes on S Albro Pl/Ellis Ave S and E Marginal Way S.

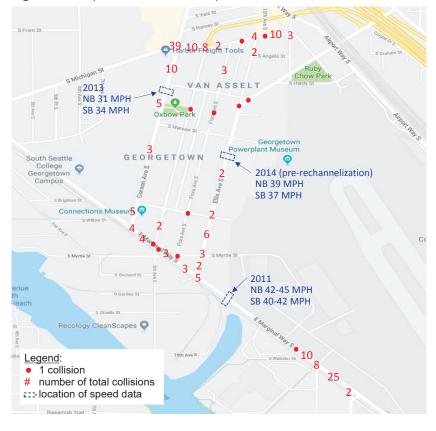




## **EXISTING COLLISION & SPEED DATA**

SDOT provided sorted collision data from January 2013 to December 2017 and speed studies from the project area. Figure 4 provides a map of collisions by block segment and intersection and 85th percentile speeds. Figure 5 summarizes the number of collisions and associated injuries along each corridor and separates collisions involving pedestrians and bicyclists.

Figure 4-Map of collision and speed data



# Speed Limits Throughout Project Area

<u>35 MPH</u>

E Marginal Way S

**30 MPH** 

Ellis Ave S

S Albro Pl

Corson Ave S

S Myrtle St

16th Ave S

14th Ave S

20 MPH

All residential, non-arterial streets

Figure 5-Summary of collisions and injuries by street corridor table

	All Collisions			Bike/Ped Related Collisions			
		No. of Collisions	Percent of		Percentage of	No. of Collisions	Percent of
Street Corridor	No. of	with	Collisions	No. of	Collisions that	with	Collisions
	Collisions	Injuries	with Injuries	Collisions	include Bike/Ped	Injuries	with Injuries
E Marginal							
Way	74	35	47%	3	4%	3	100%
Corson Ave S	66	23	35%	5	8%	4	80%
Carleton Ave S	12	0	0%	1	8%	0	0%
Flora Ave S	6	1	17%	0	n/a	n/a	n/a
Ellis Ave S	28	9	32%	1	4%	1	100%
S Bailey St	39	8	21%	5	13%	3	60%

### **EXISTING STREET CROSS SECTIONS**

In addition to reviewing existing city planning documents and available GIS information we conducted site visits to confirm the context and condition along existing streets. The following street sections depict typical existing sections, based on available GIS information and limited field measurements, along the potential routes from the South Park neighborhood center, at the intersection of 14th Ave S and Dallas Ave S, to the Georgetown neighborhood center, at the intersection of S Bailey St and 12th Ave S.

Figure 6-(SP1) 14th Ave S: South Park Bridge

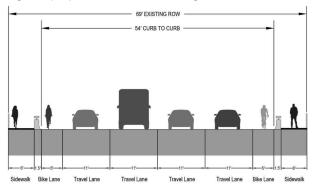
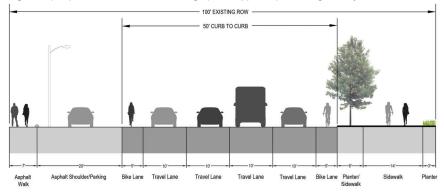


Figure 7-(SP2) 16th Ave S: South Park Bridge (North Approach) to E Marginal Way S



Georgetown to South Park Connection August 2019



#### Existing street key map

#### EXISTING CROSS SECTIONS

Figure 8 - (EMW1) E Marginal Way S: 16th Ave S to S Webster St

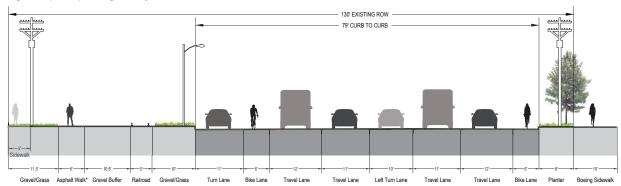
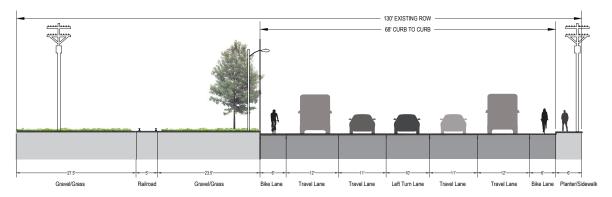


Figure 9 - (EMW2) E Marginal Way S - S Webster St To Railroad Switches



Georgetown to South Park Connection August 2019



#### Existing street key map

#### **EXISTING CROSS SECTIONS**

Figure 10-(EMW3) E Marginal Way S: Railroad Switches to Ellis Ave S

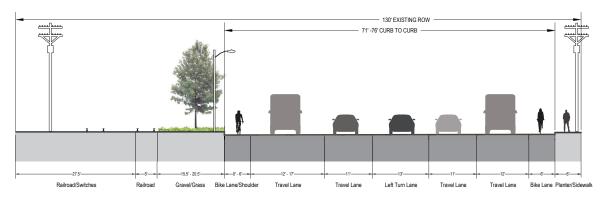


Figure 11 - (EMW4) Ellis Ave S: E Marginal Way S to S Myrtle St

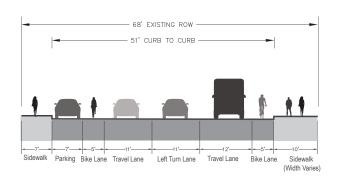
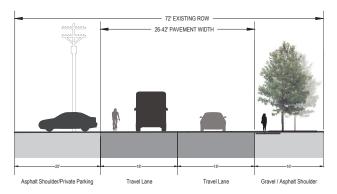
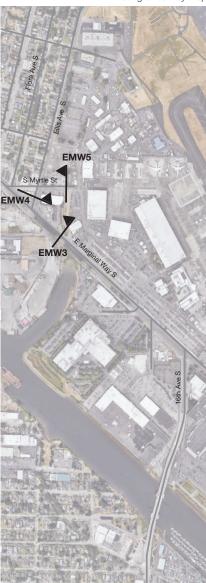


Figure 12-(EMW5) S Myrtle St: E of Ellis Ave S





Georgetown to South Park Connection August 2019

#### **EXISTING CROSS SECTIONS**

Figure 13-(GT1) Ellis Ave S: S Myrtle St to S Eddy St

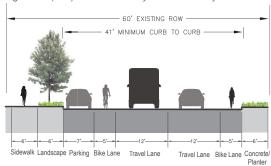


Figure 14- (GT2) Ellis Ave S: S Eddy St to S Bailey St & Flora Ave S: S Myrtle St to S Eddy St

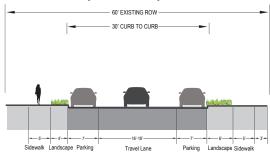


Figure 15-(GT3) S Albro Pl: S Eddy St to 13th Ave S

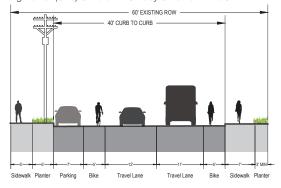


Figure 16-(GT4) 13th Ave S: S Albro PI to S Bailey St

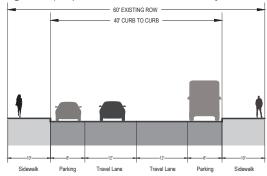
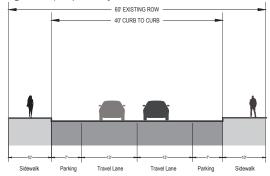


Figure 17-(GT5) S Bailey St: 13th Ave S to Ellis Ave S



Existing street key map



### THE FLUME

The Duwamish Valley Action Plan provides a brief history of the 'Flume' property, which is part of an abandoned 2,500-foot-long ditch system that discharged cooling water from a steam plant to the Duwamish River at Slip 4. The Flume went into disuse when the plant closed in the 1960s. In 2008 Seattle City Light (SCL), who owns the property, cleaned up contaminants as part of early actions to clean up the Duwamish River's Superfund site Slip 4.

The Duwamish Valley Action Plan also acknowledges that opportunities for new open space in Georgetown are limited. During the Georgetown Open Space Vision Framework process, community members identified the Flume property as both an important pedestrian link between S Myrtle St and E Marginal Way S and a potential location for an Off-Leash Area. Within the Georgetown Mobility Study the Flume property is envisioned as a pedestrian link providing access to E Marginal Way S and existing bus stops.

As it relates to this feasibility study the Flume property provides a direct connection from E Marginal Way S to Ellis Ave S (via S Myrtle St) allowing people walking and biking to bypass the intersection of E Marginal Way S and Ellis Ave S. The potential alignments along the north side of E Marginal Way S (presented later in this report) are dependent on the use of the Flume property as they allow a pedestrian and bicycle connection to bypass driveways that serve the gas station and heavy vehicular traffic turning from westbound E Marginal Way S to northbound Ellis Ave S.







## **EXISTING RAILROAD & OPERATIONS**

An active railroad runs alongside E Marginal Way S. Based on available information from SDOT and the Federal Rail Administration (FRA), trains moving through the project area operate at slow speeds, typically 5 to 10 miles per hour with a maximum of 10 miles per hour. During site visits we observed trains accompanied by on-site flaggers walking with moving trains, however, we understand not all trains are walked by a flagger. Train horns are used where the railroad crosses driveways and streets to alert users of the oncoming train. Railroad crossing gates and warning lights are not present in the study area.

The FRA provides crossing inventory reports that describe the railroad operations at street and driveway crossings. According to the crossing inventory reports, revised in November 2018, the trains traveling along the E Marginal Way S corridor are typically switching trains that utilize railroad switches to access individual properties. Railroad switches are located in the following three locations within the project area: between Ellis Ave S and the Cedar Grove driveway, north of Carleton Ave S and south of 16th Ave S. The following information from FRA crossing inventory reports documents the type and approximate frequency of trains at the following street and driveway crossings along E Marginal Way S:

- 16th Ave S: 4 switching trains\*
- 14th Ave S: 4 switching trains\*
- <u>Cedar Grove:</u> 5 trains per week, 1 through train per day, 1 through train per night, 2 switching trains
- S Webster St: 4 switching trains\*
- S Myrtle St: 4 switching trains\*

Switches provide train access to industrial sites

\*FRA reports did not clarify if these numbers were per day or per week.





## **COMMUNITY OUTREACH**

Outreach and community involvement have been central in the planning of the future Georgetown to South Park connection. The City of Seattle has produced several reports on mobility, open space and opportunities for improvements including the following:

Duwamish Valley Action Plan (2018, City of Seattle): created by the City of Seattle's Duwamish Valley Program (DVP), a multi-departmental effort led by the Office of Sustainability & Environment (OSE) and the Office of Planning & Community Development (OPCD), this plan documents the community's and City's shared vision to promote collaboration and guide investment in the Duwamish Valley. Focused on the Duwamish Valley neighborhoods of South Park and Georgetown, the program is driven by environmental justice guiding principles, racial equity outcomes, community input, and community-led plans.

Georgetown Mobility Study (2017, SDOT): focuses on evaluating and identifying opportunities for street improvements to increase safety and health and improve access for all users.

Open Space Vision and Framework (2017, Seattle Parks Foundation): focuses on improvements to open spaces to provide public green space in order to improve the quality of life for community members.

Outside Citywide: South Park Neighborhood Profile (2019, Seattle Office of Planning & Community Development): captures the characteristics and conditions of the South Park neighborhood and the community's vision for improving public space in South Park including: neighborhood greening, creating opportunities to walk or bike to parks and to play, gather, and socialize, and for improving access to nature and water. The profile is based on several community events that took place in the summer of 2018.

A stakeholder workshop was held for this Georgetown to South Park connection study in August 2018 to verify project goals and objectives, and to discuss potential route alignments and opportunities.

Key feedback from this workshop included:

- The community desire for an all ages and abilities connection that is convenient and accessible between the Georgetown and South Park neighborhood centers.
- The preference for a facility or trail that is both safe and aesthetically pleasing and provides environmental benefits (e.g. a trail that adds street trees and planting area as buffers between people walking and riding bicycles and motor vehicles).
- Concerns were voiced about being uncomfortable walking/biking alongside trains, particularly due to the noise from train horns.
- General preference for locating proposed improvements along the north/east side of E Marginal Way S along Boeing with the development of the "Flume" property.

Following the development of potential alignments, we worked with Duwamish Valley Safe Streets and their community advisory group to collect input to help inform the selection of the community's preferred route and it's features. Engagement included a written and paper survey translated into Spanish, Vietnamese, and Khmer with approximately 300 responses. We also presented to community groups, spoke with people at community events, and held a celebration event to collect additional input. Approximately 400 people participated in sharing feedback and six community groups wrote formal letters of support.

## TRAFFIC DATA COLLECTION & ANALYSIS

Traffic counts were collected in September 2018 at key intersections to facilitate the evaluation of proposed improvements and the impacts of new non-motorized facilities on existing traffic. Traffic data was collected at the following locations and is illustrated in Figure 18:

- 16th Ave S and E Marginal Way S
- 14th Ave S and E Marginal Way S
- Boeing driveways on E Marginal Way S north of 14th Ave S
- Ellis Ave S and E Marginal Way S
- Ellis Ave S and S Myrtle St

Figure 19 summarizes recorded turning movement counts.

The existing level of service and delay at each intersection was determined using signal timing cards provided by SDOT and field traffic count data. The future level of service and delay was estimated using traffic modeling with added crosswalks or signal phases to support potential non-motorized connections.

The following pages summarize findings for each of the intersections evaluated; it is anticipated that additional traffic analysis will be required after a preferred alignment has been identified.

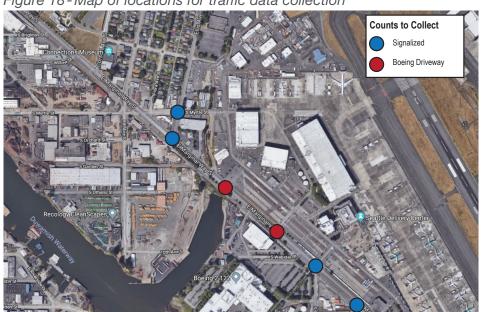
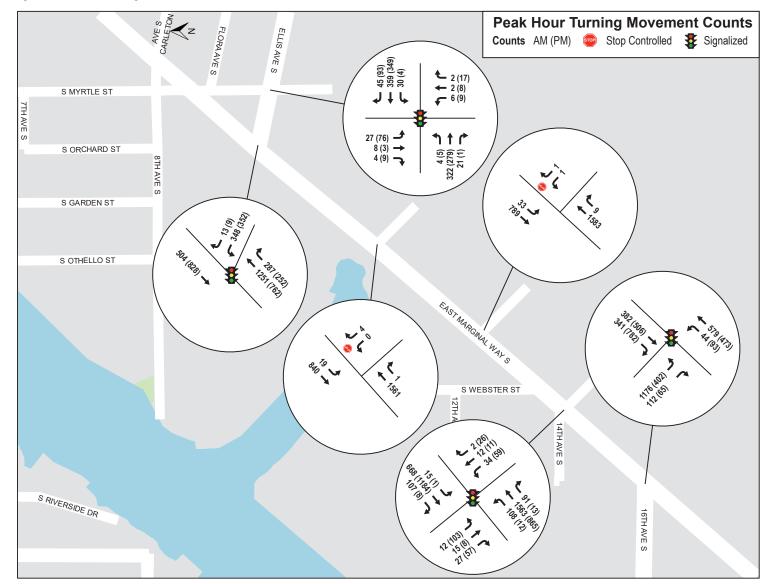


Figure 18-Map of locations for traffic data collection

Figure 19-Peak Hour Turning Movement Counts



Yellow area is shown in Figure 19



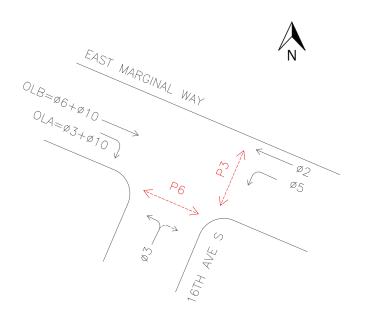
Georgetown to South Park Connection August 2019

#### 16th Ave S and E Marginal Way S

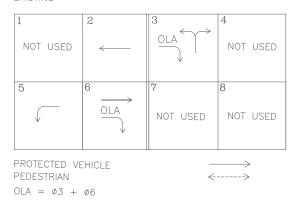
There are no crosswalks at this intersection. Analysis at this intersection included the addition of crosswalks at the south and east legs of the intersection to provide at-grade crosswalks for people walking and riding bicycles. The south crosswalk was presumed to have a protected pedestrian phase (no right on red), restricting eastbound to southbound right turn movements. The east crosswalk was adjusted to provide a leading pedestrian interval (3 seconds). Figure 21 summarizes the AM and PM intersection Level of Service (LOS) and Delay (in seconds) in the existing condition to add crosswalks.

Note: Two existing Boeing Company tunnels cross E Marginal Way S (approximately 500-feet east of the intersection) and 16th Avenue S (approximately 350-feet south of the intersection). The tunnels can be used by the public however, the tunnels have running slopes and cross slopes exceeding ADA requirements.

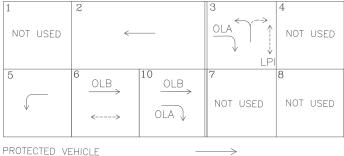
Figure 20 - Model phasing diagram



**EXISTING** 



PROPOSED



PERMISSIVE VEHICLE
PEDESTRIAN
OLA = Ø3 + Ø10

OLB =  $\phi$ 6 +  $\phi$ 10  $\phi$ 10 = DUMMY PHASE

Figure 21 - Traffic analysis results table

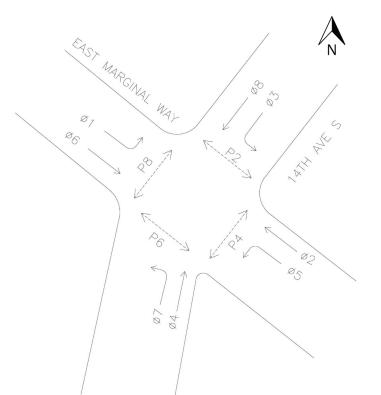
E Marginal Way S & 16th Ave S	AM		PM	
L Marginar Way 3 & 10th Ave 3	Delay	LOS	Delay	LOS
Existing Condition	27	С	17	В
Add South and East Side Crosswalk with a Protected Pedestrian Phase for South Side Crossing (No Right Turn on Red for East Bound Right) and a 3 second Leading Pedestrian Interval for East Side Crossing		D	25	С

#### 14th Ave S and E Marginal Way S and Boeing Driveways

This intersection, which provides the only signal controlled access to Boeing, was evaluated to determine impacts to traffic operations resulting from restricting driveway access along E Marginal Way S to right in/right out only. To provide a safe bicycle facility on the northbound side of E Marginal Way S, two Boeing driveways located north of the intersection were restricted to right in/right out only. Video cameras were installed to document the number of vehicles that would be diverted from turning left at the driveways to turning left at 14th Ave S during the AM peak hour (7:30-8:30).

Analysis at this intersection evaluated the impacts to traffic operations where 52 southbound left turning vehicles (based on counts) are diverted from the Boeing driveways to 14th Ave S during the AM peak hour. Figure 23 summarizes the AM intersection LOS and Delay (in seconds) in the existing condition and to accommodate additional left turning vehicles.

Figure 22 - Model phasing diagram



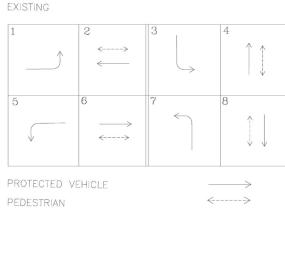


Figure 23 - Traffic analysis results table

E Marginal Way S & 14th Ave S	AM		
L Marginar Way 3 & 14th Ave 3	Delay	LOS	
Existing Condition	22	С	
Divert Boeings South Bound Left Turn volume (52vehs/hr) to 14th Ave S (AM only)	28	С	

#### Ellis Ave S and E Marginal Way S

This intersection has existing crosswalks on the north and west legs of the intersection. This intersection was evaluated to add a new crosswalk on the east leg of the intersection, which could potentially reduce the number of street crossings for people walking and riding bicycles depending on the final alignment selected. To provide a protected crossing, right turns on red would be restricted for westbound traffic turning right from E Marginal Way S to Ellis Ave S when the Walk and/or Bicycle Signal is activated. Figure 25 summarizes the AM and PM intersection LOS and Delay (in seconds) in the existing condition and the addition of a new dedicated bicycle crossing.

Figure 24 - Model phasing diagram

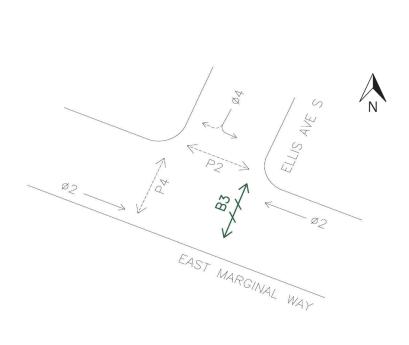
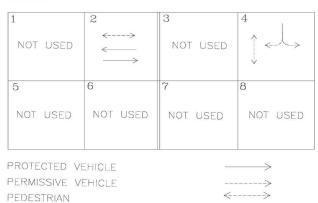


Figure 25 - Traffic analysis results table

E Marginal Way S & Ellis Ave S	AM		PM	
L Iviaigiliai way 3 & Liiis Ave 3	Delay	LOS	Delay	LOS
Existing Condition	16	В	13	В
Add Dedicated Bike Crossing on East Side with No Right Turn on Red for the West Bound Right movement	26	С	22	С

#### **EXISTING**



#### ALTERNATIVE

NOT USED	2 <> <	3	4
5	6	7	8
NOT USED	NOT USED	NOT USED	NOT USED

PROTECTED VEHICLE	>
PERMISSIVE VEHICLE	>
PEDESTRIAN	<>
BICYCLE	$\leftarrow\!$

#### Ellis Ave S and S Myrtle St

The existing condition at this intersection has crosswalks on all four legs. A diagonal crossing was evaluated for people walking and riding bicycles from the southwest corner to the northeast corner.

To provide a diagonal crossing for people walking a dedicated signal phase with 7 seconds Walk time and 27 seconds of flash Don't Walk time was evaluated. A longer vehicular cycle was provided to accommodate the new diagonal bike and pedestrian phase and offset vehicle delay for traffic on Ellis Ave S, increasing cycle times from 55 seconds to 110 seconds in the AM and 100 seconds in the PM. Figure 27 summarizes the AM and PM intersection LOS and Delay (in seconds) in the existing condition and to accommodate a diagonal crossing.

Figure 26 - Model phasing diagram

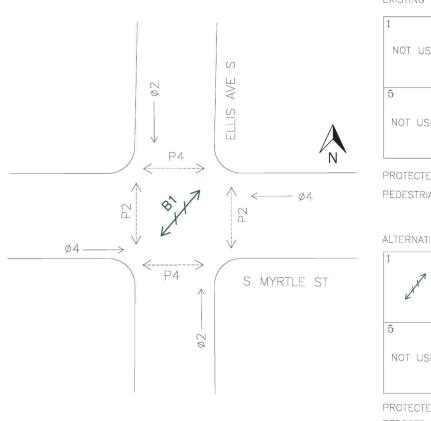
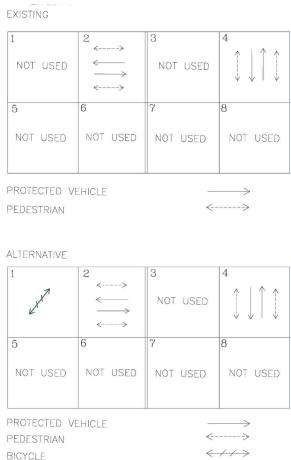


Figure 27 - Traffic analysis results table

S Myrtle St & Ellis Ave S	AM		PM	
3 Myrtie 3t & Lilis Ave 3	Delay	LOS	Delay	LOS
Existing Condition	7	Α	7	Α
Add Diagonal Bike and Pedestrian Crossing	18	В	22	С



EBR & WBR NTOR

### **FACILITY TYPES**

The goal of the Georgetown to South Park connection is to provide an all ages and abilities facility for people walking and riding bicycles. The walking and bicycling facility types being considered to provide this connection are a shared use path, a protected bike lane (which would be paired with a sidewalk to provide space for walking), and a neighborhood greenway.

A **shared use path** typically provides a minimum 5-foot horizontal separation from the roadway and is a shared by people walking and riding bicycles. In addition to providing separation from traffic, the setback from the roadway also provides opportunity for planting and street trees, which is consistent with the type of safe and comfortable experience the community has envisioned.

A **neighborhood greenway** provides a safe and comfortable connection on low speed and low volume streets with traffic calming improvements such as pavement markings, speed humps, diverters, and wayfinding signage.

A protected bike lane (PBL) combines the user experience of a multi-use trail with a conventional bike lane. They have different forms, but all share common elements providing space that is used for bicycles and is physically separated from vehicle travel lanes, parking lanes and sidewalks. Pedestrians are accommodated on separate sidewalks. PBLs can be designed for one-way or two-way use.

Figure 28 - Shared use path



Figure 29 - Neighborhood greenway



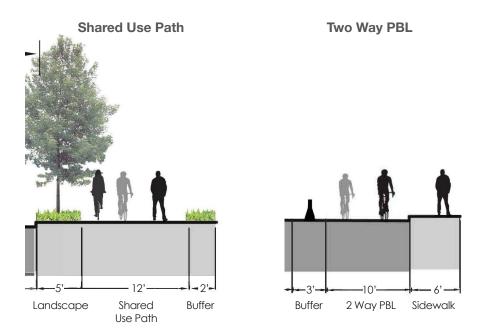
Figure 30 - Protected bike lane



#### SHARED USE PATH VS. PROTECTED BIKE LANE (PBL)

The space to provide a shared use path versus a two-way protected bike lane and sidewalk is similar. For the purposes of this report, and to align with community goals discussed at the community stakeholder workshop, a shared use path has been shown in potential alignments where feasible. However, depending on site context and project specific constraints, including funding, it may be more appropriate to provide a two-way protected bike lane and sidewalk. Typically, a shared use path will require the relocation of an existing curb and impact existing drainage infrastructure, whereas as a two-way protected bike lane can be provided on existing pavement by installing a vehicular barrier and maintaining most of the existing storm drainage.

Figure 31 - Comparison of Space for Shared Use Path and Two-Way Protected Bike Lane



## **POTENTIAL ALIGNMENTS**

A variety of routes, cross sections, and facility types were explored to connect the Georgetown and South Park neighborhood centers, based on the context, street type, and classification of each corridor in the project area. This section summarizes potential alignments and cross sections that were developed. For the purposes of summarizing and comparing route alignments and alternatives, the neighborhood to neighborhood connection has been divided into three segments:

#### **Georgetown Connection:**

from the intersection of Ellis Ave S and S Myrtle St to the intersection of S Bailey St and 12th Ave S.

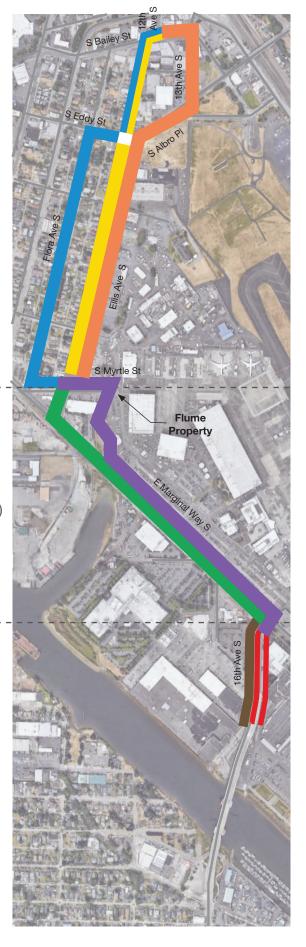
- 1 Flora Ave S
- 2 Ellis Ave S
- 3 Ellis, Albro, 13th

E Marginal Way S Connection: from the intersection of 16th Ave S and E Marginal Way S to the intersection of Ellis Ave S and S Myrtle St.

- North Side:
  Trail (4A) &
  Protected Bike Lane (4B)
- 5 Trail By Rail

South Park Connection: from the South Park Bridge to the intersection of 16th Ave S and E Marginal Way S.

- 6 West Side Trail
- 7 Protected Bike Lanes



#### THE SOUTH PARK CONNECTION

The South Park connection extends from the intersection of 16th Ave S and E Marginal Way S to the south approach of the South Park Bridge at 14th Ave S and S Dallas Ave. 16th Ave S varies between E Marginal Way S and the South Park Bridge to accommodate intersection channelization, on street parking, bus stops, right turn lane, and access to the Boeing tunnels. The typical cross section is shown between the Boeing tunnels and the north approach of the South Park Bridge; during design the project team will work with SDOT to develop a layout that works with each of the different conditions that occurs along 16th Ave S.

Changes to the South Park Bridge will need to be coordinated with King County, owner of the South Park Bridge, to create a seamless connection from 16th Ave S to 14th Ave S.

- West Side Trail: Provides a shared use path facility
- 7 Protected Bike Lanes: Provides protected bike lanes at sidewalk grade on the east and west side of 16th Ave S



Georgetown to South Park Connection August 2019

Figure 32 - (SP1) West Side Trail

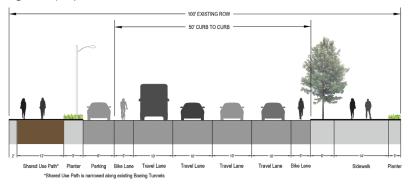
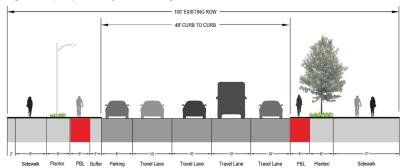


Figure 33 - (SP1) One-Way PBL to Bridge



Looking south along 16th Ave S with access to the Boeing tunnels on the right side of the street.



#### EAST MARGINAL WAY S CONNECTION

The E Marginal Way S connection extends from the intersection of E Marginal Way S and 16th Ave S to the intersection of Ellis Ave S and S Myrtle St. The North Side Trail and North Side PBL alternatives include the Flume property to provide a safe, off-street connection away from busy streets. Options for each side of E Marginal Way S were analyzed.

A connection through the Flume is recommended on the eastern portion of the parcel to maximize space for Seattle Parks' future off-leash area, allow for good sightlines, and reduce grading that may be needed to construct the connection.

- North Side: Trail (4A) & Protected Bike Lane (4B)
- 5 Trail By Rail



#### **Alignments and Typical Sections**

The following pages document typical proposed cross sections for each of the three alignments listed below.

Trail By Rail: provides a shared use path facility

- E Marginal Way S: 16th Ave S to S Webster St
- E Marginal Way S: S Webster St to Railroad Crossing
- E Marginal Way S: Railroad Crossing to Ellis Ave S
- Ellis Ave S: E Marginal Way S to S Myrtle St

North Side Trail (4A): Provides a shared use path facility

- E Marginal Way S: 16th Ave S to S Webster St
- E Marginal Way S: S Webster St to Ellis Ave S
- Flume Connection
- S Myrtle St: East of Ellis Ave S

North Side PBL (4B): Provides a two-way protected bike lane and sidewalk

- E Marginal Way S: 16th Ave S to S Webster St
- E Marginal Way S: S Webster St to Ellis Ave S
- Flume Connection
- S Myrtle St: East of Ellis Ave S

#### **E MARGINAL WAY S CONNECTION -NORTH SIDE TRAIL**

The North Side Trail is a shared use path on the north side of E Marginal Way S. A shared use path provides landscape separation from traffic on E Marginal Way S and opportunities for new street trees. This alignment includes the "Flume" property to reduce the time a user is along E Marginal Way S. New crosswalks are required at the south and east legs of the 16 Ave S and E Marginal Way S intersection for users on either side of 16th Ave S. This alignment maintains all travel lanes on E Marginal Way S but reduces through lanes to 11' and the twoway left turn lane to 10'. This option eliminates the existing bike lanes on E Marginal Way S that currently serve trips to the north and south and reallocates the space to provide the shared use





Georgetown to South Park Connection August 2019

Figure 34 - (EMW1) E Marginal Way S: 16th Ave S to S Webster St

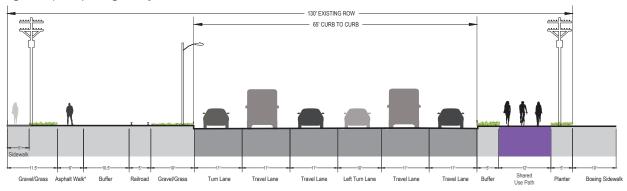
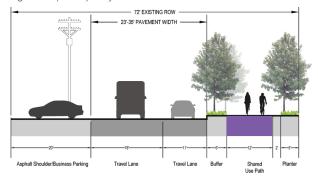


Figure 35 - (EMW2) E Marginal Way S: S Webster St to Ellis Ave S

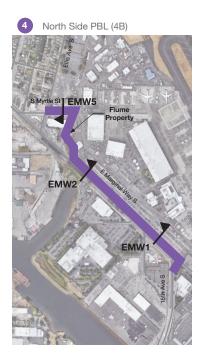


Figure 36-(EMW5) S Myrtle St: East of Ellis Ave S



### E MARGINAL WAY S CONNECTION - NORTH SIDE PROTECTED BIKE LANE (PBL)

This alternative provides a protected bike lane and an improved sidewalk for people walking. Similar to the North Side Trail, this alternative makes use of the "Flume". New crosswalks are required at the south and east legs of the 16 Ave S and E Marginal Way S intersection to provide access to the north side of E Marginal Way S for users on either side of 16th Ave S. This alignment maintains all travel lanes on E Marginal Way S but reduces through lanes to 11' and the two-way left turn lane to 10'. This option eliminates the existing bike lanes on E Marginal Way S that currently serve trips to the north and south and reallocates the space to provide the protected bike lane.



Georgetown to South Park Connection August 2019

Figure 37-(EMW1) E Marginal Way S: 16th Ave S to S Webster St

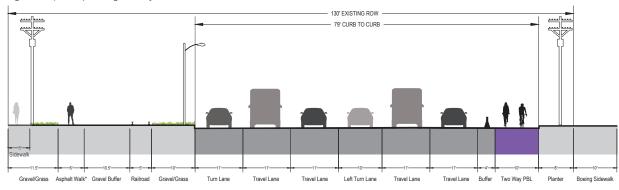


Figure 38 - (EMW2) E Marginal Way S - S Webster St To Ellis Ave S

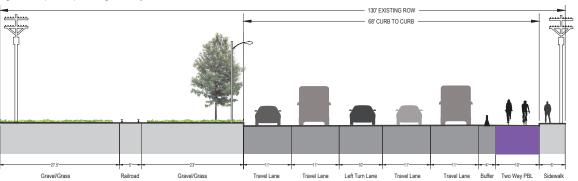
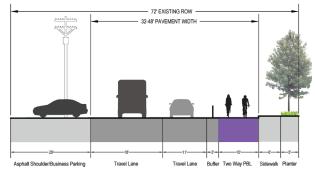


Figure 39 - (EMW5) S Myrtle St: East of Ellis Ave S



### E MARGINAL WAY S CONNECTION - TRAIL BY RAIL

The Trail by the Rail takes advantage of underutilized public right-of-way west of the railroad tracks. Existing channelization on E Marginal Way S would remain the same. This alternative provides greater separation from vehicular traffic that is traveling at a higher speed and volume than the occasional attended train traveling at low speed. The alignment for this alternative is south/west of the railroad from 16th Ave S until the railroad switches near Ellis Ave S. At the railroad switches the alignment crosses the railroad and continues on the north/east side of the railroad to Ellis Ave S. The alignment uses the existing crosswalk at Ellis Ave S to cross E Marginal Way S and continues north to S Myrtle St.



Georgetown to South Park Connection August 2019

Figure 40-(EMW1) E Marginal Way S: 16th Ave S to S Webster St

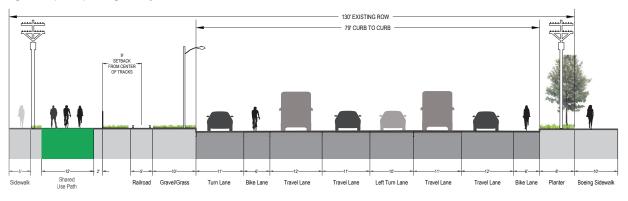
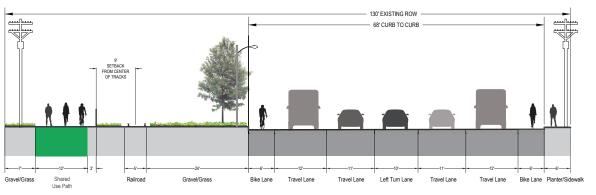


Figure 41 - (EMW2) E Marginal Way S - S Webster St To Railroad Crossing



### E MARGINAL WAY S CONNECTION - TRAIL BY RAIL

The trail could also cross the railroad tracks at the existing Cedar Grove Composting driveway, south of the switches, to consolidate areas where pavement crosses the railroad tracks. However, this route would require replacing additional trees along E Marginal Way S.

Trail By Rail

S.Myrtle St.

Railroad
Switches

EMW1

Georgetown to South Park Connection August 2019

Figure 42 - (EMW3) E Marginal Way S: Railroad Crossing to Ellis Ave S

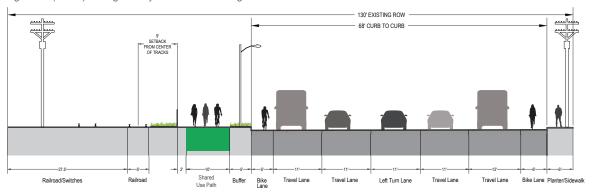
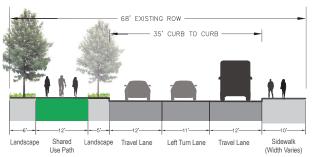


Figure 43 - (EMW4) Ellis Ave S: E Marginal Way S to S Myrtle St



Railroad switches near Ellis Avenue S



#### **GEORGETOWN CONNECTION**

The Georgetown Connection begins at the intersection of Ellis Ave S and S Myrtle St providing a connection to the Georgetown neighborhood center at the intersection of S Bailey St and S 12th St.

The alternatives along arterial streets are shown as shared use paths, however, the facility could also be a protected bike lane with an adjacent sidewalk. Where the proposed facility is constrained (e.g. along grade changes and existing utilities along Ellis Ave S and S Albro Pl) the design may require walls, railings, and fences to be rebuilt; a protected bike lane and sidewalk may have greater impact to existing grades, trees and utilities because the full width of the facilities needs to be paved and level. The evaluation of potential alignments discussed later in this report assumes the use of a shared use path along arterial streets.

#### **Alignments and Typical Sections**

The following pages document typical proposed cross sections for each of the three alignments listed below.

Flora Ave S: Provides neighborhood greenway

- Flora Ave S: S Myrtle St to S Eddy St
- S Bailey St: 13th Ave S to Ellis Ave S

Ellis Ave S: Combines a shared use path and greenway connections

- Ellis Ave S: S Myrtle St to S Eddy St Shared Use Path
- Ellis Ave S: S Eddy St to S Bailey St Greenway
- S Bailey St: 13th Ave S to Ellis Ave S Shared Use Path

Ellis, Albro, 13th: Provides a shared use path facility

- Ellis Ave S: S Myrtle St to S Eddy St
- S Albro PI: S Eddy St to 13th Ave S
- 13th Ave S: S Albro PI to S Bailey St
- S Bailey St: 13th Ave S to Ellis Ave S







# GEORGETOWN CONNECTION - FLORA AVE S

Provides a Neighborhood Greenway connection along neighborhood streets using shared lane pavement markings (sharrows), signage, speed cushions, and other traffic calming measures. This alternative maintains parking along the neighborhood greenway streets, but is less direct, using Flora Ave S, S Eddy St, and Ellis Ave S. At S Bailey St, the existing crosswalk would allow people to cross the street and a short shared use path would connect people to 12th Ave S.

Figure 44-(GT2) Flora Ave S: S Myrtle St to S Eddy St

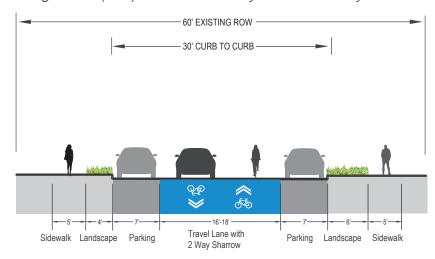
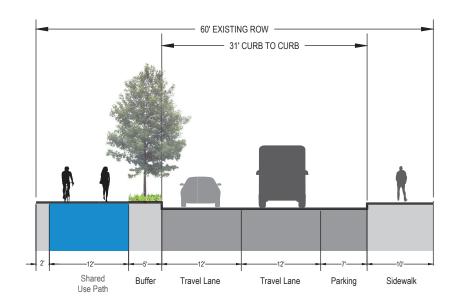
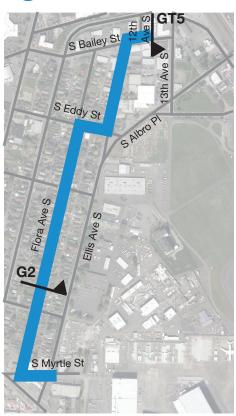


Figure 45 - (GT5) S Bailey St: 13th Ave S to Ellis Ave S



1 Flora Ave S



# GEORGETOWN CONNECTION - ELLIS AVE S

This route continues on Ellis Ave S for the entire north segment requiring a street crossing at the existing unsignalized intersection of Ellis Ave S and S Albro Pl. Trail users would cross from the east to the west side of Ellis Ave S and continue on Ellis Ave S. North of S Eddy St, the facility type would transition to a Neighborhood Greenway to maintain parking along the neighborhood street. The existing crosswalk would allow people to cross S Bailey St and a shared use path would connect people to 12th Ave S.

Figure 46 - (GT1) Ellis Ave S: S Myrtle St to S Eddy St

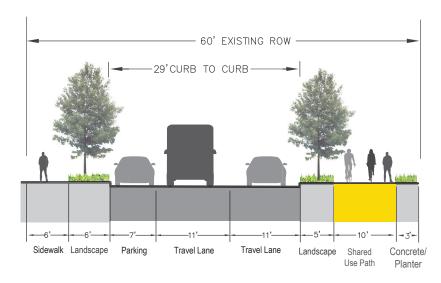


Figure 47 - (GT2) Ellis Ave S: S Eddy St to S Bailey St

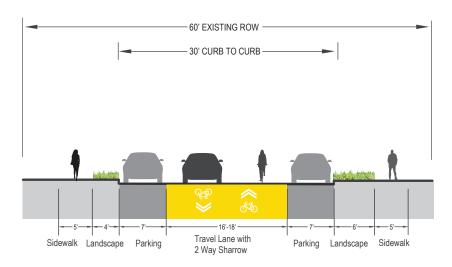
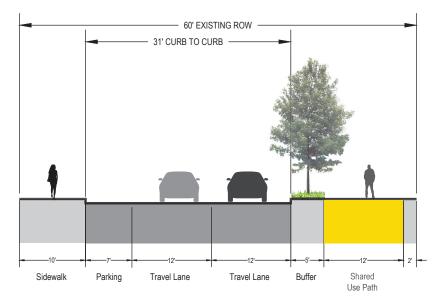
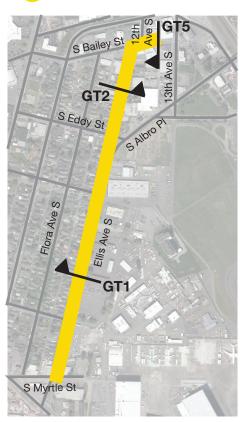


Figure 48 - (G5) S Bailey St: 13th Ave S to Ellis Ave S



2 Ellis Ave S



# GEORGETOWN CONNECTION - ELLIS, ALBRO, 13TH

This alternative utilizes Ellis Ave S, S Albro PI, and 13th Ave S to get users to the Georgetown business district and passes along Ruby Chow Park and the potential future Georgetown Transportation Center (see the Georgetown Mobility Study Report for additional information) on the east side of 13th Ave S. Along Ellis Ave S and S Albro PI, the existing bike lanes are removed and travel lanes narrowed to 11' to make space for the shared use path. On-street parking is maintained along Ellis Ave S and S Albro PI.

Figure 49-(GT1) Ellis Ave S: S Myrtle St to S Eddy St

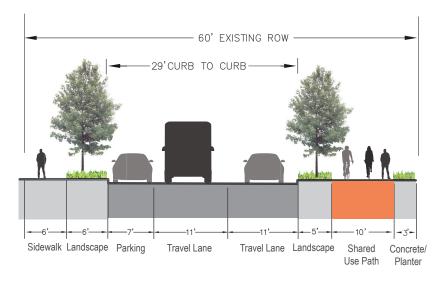
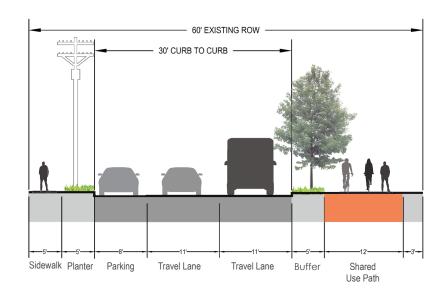
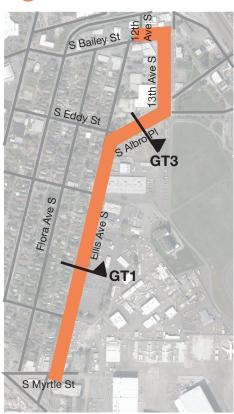


Figure 50-(GT3) S Albro PI: S Eddy St to 13th Ave S



3 Ellis, Albro, 13th



# GEORGETOWN CONNECTION - ELLIS, ALBRO, 13TH

Existing parking on the west side of 13th Ave S and the north side of S Bailey St would be removed to accommodate the proposed shared use path. On-street parking is maintained on the east side of 13th Ave S and the south side S Bailey St.



Figure 51 - (GT4) 13th Ave S (One-way SB): S Albro PI to S Bailey St

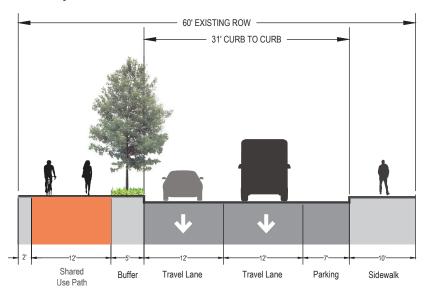
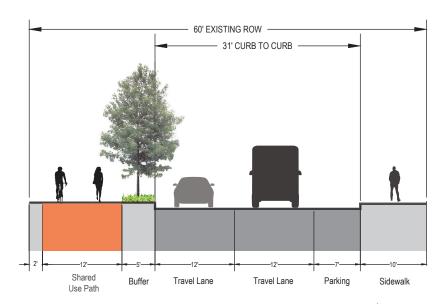


Figure 52 - (GT5) S Bailey St: 13th Ave S to 12th Ave S



### **EVALUATION**

Potential alignments presented in this report have been evaluated using a comprehensive and holistic approach that considers a variety of items, from quantitative analysis of traffic modeling and potential construction costs to qualitative elements such as user comfort. The categories evaluated include: operations of signals, freight, railroad, transit and parking; coordination with property owners; access/ impacts to existing facilities; comfort of non-motorized users; impacts to urban forestry and existing utilities; and the potential cost to implement. Each of these categories included items that were evaluated and rated in comparison to the other potential alignments (see Figure 53 for a full list of the items evaluated); the evaluation determined whether potential alignments positively or adversely addressed existing conditions.

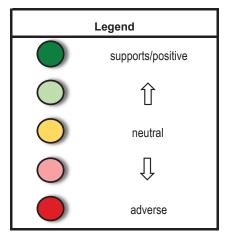
Figure 54 summarize the evaluation of potential alignments. Green circles indicate categories that are supported by or positively addressed by the proposed concept, yellow circles are neutral, and red circles indicate categories that are adversely addressed by the proposed concept. It should be noted that no weighting, or priority, was applied to individual evaluation criteria. The final evaluation has been developed to summarize findings with the community regarding pros and cons for identifying a preferred alignment and facility type.

Figure 53 - List of categories and items included in the evaluation

9	<b>o</b>
Operations	Traffic signal operations
	Freight movements
	Railroad operations
	Transit stops and operations
	On-street parking
Coordination and	Boeing street frontage
Property Impacts	<ul> <li>Boeing facilities (parking and distribution center)</li> </ul>
	Property owners (general)
	King County Airport
	Fire Department
	Railroad
Comfort	All ages and abilities facility provided
	<ul> <li>Transitions including existing to proposed facility and between</li> </ul>
	varying cross sections
	<ul> <li>Community perception and directness of the alignment</li> </ul>
	<ul> <li>Separation from Vehicles, Freight and Railroad</li> </ul>
	<ul> <li>Non-motorized Arterial Crossing along the alignment</li> </ul>
	Non-motorized Driveway Crossings along the alignment
Urban Forestry	<ul> <li>Existing trees and opportunities for planting new trees</li> </ul>
	<ul> <li>Existing planting areas and opportunities for planting new planting</li> </ul>
	areas
Impacts to Utilities	Relocation of Seattle City Light power infrastructure
	Relocation of franchise utilities
	<ul> <li>Relocation of street lights, consideration of additional streets</li> </ul>
	lighting
	Existing fire hydrants
	Stormwater impacts that will trigger permitting requirements
	Relocation of existing storm drain
Cost	Cost of constructing the potential alignment

Figure 54-Evaluation Summary of Georgetown to South Park Connection

	Georgetown Connection			E Marginal Way S Connection			South Park	Connection
Evaluation Categories	Flora Ave S	Ellis Ave S	Ellis, Albro, 13th	North Side Trail	North Side PBL	Trail by the Rail	West Side Trail	Protected Bike Lanes
Operations								
Coordination and Property Impacts								
Comfort	0							
Urban Forestry	N/A							
Impacts to Utilities	N/A							
Construction Cost								



# COMMUNITY PREFERRED ALIGNMENT

Public feedback identified community preferences for the facility type and implementation of a new connection between Georgetown and South Park as well as feedback on potential alignments described in this report. A summary of findings from an online survey, paper survey, and feedback received at the GTSP Community Celebration is summarized in Appendix A.

In general, community preferences include a desire for a connection that:

- is safe for people during the day and at night,
- connects people to businesses and attracts visitors to and between the neighborhoods,
- includes features and amenities that are important to the community even if it takes more time and money compared to a quick implementation of functional spot improvements,
- provides connections to the City's existing and planned bicycle and transit networks,
- reduces pollution by planting of additional trees and natural elements, and
- provides cultural value through artwork, interpretive signs and cultural or historical markers.

Survey results indicated there was not a strong preference between a walking and biking facility that either separated or shared space for people walking and biking.

Pie charts shown document participant's preferred alignment for each segment of the connection.

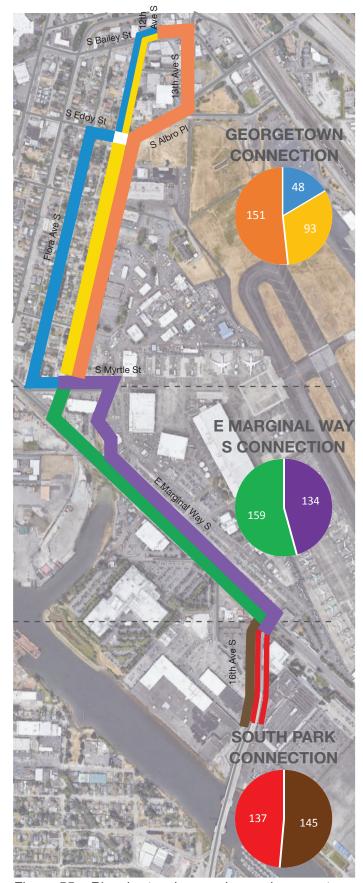


Figure 55 - Pie charts shown above document participant's favorite alignment for each segment of the connection.

For the Georgetown Connection, the community prefers the Ellis, Albro, 13th alignment, however, there is not a strong preference for a specific alignment along the E Marginal Way S or South Park connections per voting.

SDOT received six letters of support from local community groups. Four of the letters, from the Georgetown South Park Trail Community Advisory Group, Duwamish River Cleanup Coalition Technical Advisory Group, South Park Neighborhood Association, and the Georgetown Community Council, note their preference for the following routes, which are also shown in Figure 56:

- One-way protected bike lanes on both sides of 16th Ave S leading to the South Park Bridge,
- A walking/biking path or two-way protected bike lane on the north side of E Marginal Way S
- A walking/biking path on Ellis Ave S, S Albro Pl, and 13th Ave S

The Georgetown Merchant Association provided a letter of support for a walking/biking path on Ellis Ave S, S Albro PI, and 13th Ave S, but strongly oppose any loss of parking on S Bailey St between 12th Ave S and 13th Ave S.

The Georgetown Tiny House Village also provided a letter of support for a walking/biking path or two-way protected bike lane on the north side of E Marginal Way S, which would improve access for their residents. The letters, which are included in Appendix A, note how the preferred alignments best support the goals and priorities of the individual community groups.



Figure 56 - Preferred route of local community groups, see letters of support in Appendix A.

# **DESIGN CONSIDERATIONS AND PROJECT RISKS**

This section outlines design considerations and project risks that should be considered in selecting the final alignment. The items discussed focus on the preferred alignment documented in the letters of support from the Georgetown and South Park community groups. Items are documented by segment (i.e. South Park Connection, E Marginal Way S Connection, and Georgetown Connection) and a map for each segment shows where location specific items occur. For clarity purposes, not all items are shown on the map.

### SOUTH PARK CONNECTION - ONE-WAY PROTECTED BIKE LANES

- South Park Bridge Coordination Coordinate with King County to develop a safe and comfortable transition from the conventional bike lanes on the South Park Bridge to protected bike lanes (PBL) on 16th Ave S.
- 2. <u>New curbs and drainage impacts</u> Install new curbs and drainage structures to collect stormwater runoff along both sides of 16th Ave S for new PBLs and adjust existing drainage structures that will be in the PBL.
- 3. <u>Bus stop and on-street parking</u> Coordinate PBL alignment on west side of 16th Ave S with existing on-street parking and bus stop and provide new sidewalk where existing pedestrian path is on the roadway shoulder protected by wheelstops.
- 4. <u>Intersection channelization</u> Continue northbound PBL along curb through intersection channelization (existing conventional bike lane is located between left- and right-turn lanes) and coordinate with BNSF for railroad crossing.

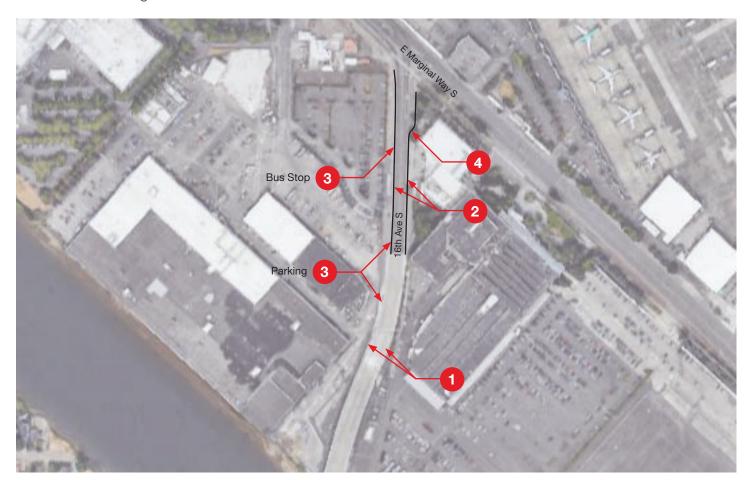


Figure 57 - Map showing location specific design considerations for the South Park Connection.

# E MARGINAL WAY S CONNECTION - NORTH SIDE TRAIL OR TWO-WAY PROTECTED BIKE LANE

See Figure 58 for a map showing locations of specific design considerations discussed below.

- 1. <u>Channelization transitions</u> Work with SDOT and the Freight Advisory Board to identify acceptable channelization transitions north and south of the shared use path or PBL
- 2. <u>Maintain southbound bike lane</u> Explore options to relocate the existing southbound bike lane on E Marginal Way S between the curb and existing trees to maintain a continuous bike facility for southbound bicyclists as shown in the Bicycle Master Plan.
- 3. <u>Survey corridor to verify constraints</u> Survey the corridor to verify the right of way width and location between 16th Ave S and the Flume Property, the location of covered walkway structures and sidewalks along the Boeing property, the fencing just south of the Flume Property. Information from survey will be used to determine pinch points along the corridor where the typical section may be constrained and to identify the extents of utility relocation and tree replacement.
- 4. <u>Impacts to overhead electrical distribution</u> Review surveyed locations of existing overhead power distribution and street light poles to determine the extents of utility poles that will require relocation.
- 5. <u>Covered walkway structures along Boeing property</u> Review surveyed locations of covered walkway structures and vehicular guardrail to determine the extents of that will require relocation and coordinate with Boeing and SDOT.
- 6. <u>Boeing driveway access</u> Coordinate with Boeing to restrict driveway access to right in/right for the two driveways between 14th Ave S and the Flume property.
- 7. <u>Intersection Design at 16th Ave S</u> Develop an intersection design at 16th Ave S/E Marginal Way S that provides safe, comfortable access for all users and maintains vehicle, truck and railroad operations.
- 8. Flume Property Confirm a portion of the parcel can be used as a connection for people walking and riding bicycles from E Marginal Way S to S Myrtle St; the north side alignments are not feasible without this connection due to driveways along E Marginal Way S north of the Flume Property. A connection is recommended on the eastern portion of the parcel to maximize space for Seattle Parks' future off-leash area, allow for good sightlines, and reduce grading that may be needed to construct the connection. The alignment will need to work around the existing building encroachment and because the parcel drains to a capacity constrained storm drain, flow control may be required. See Appendix B for additional information.
- 9. <u>Drainage considerations</u> North side trail will require a new curb alignment and drainage structures along the north/east side of E Marginal Way S to collect stormwater runoff and adjustments to existing drainage structures that may be in the PBL.
- 10. Design of bus stop at 14th Ave S Coordinate design with existing bus stop.
- 11. <u>Design on S Myrtle St</u> Coordinate with the Seattle Fire Department to develop an acceptable alignment across the front to Fire Station 27 along S Myrtle St. Coordinate with Boeing for operations of the existing driveway at the S Myrtle St street end.



Figure 58 - Map showing location specific design considerations for the E Marginal Way S Connection.

### **GEORGETOWN CONNECTION - SHARED USE PATH ALONG ELLIS, ALBRO, 13TH**

See Figure 59 for a map showing locations of specific design considerations discussed below.

- Survey corridor to verify constraints Survey the corridor to verify the location of the right of way, fire
  hydrant, trees, and existing fences. Information from survey will be used to determine pinch points along the
  corridor where the typical section may be constrained, potential encroachments, and to identify the extents
  of utility relocation and tree replacement.
- 2. <u>Coordination with adjacent property and business owners</u> Coordinate with adjacent property and business owners along Ellis Ave S, 13th Ave S, and S Bailey St for proposed improvements and operations for existing use and access, particularly within the Georgetown Neighborhood Center along 13th Ave S and S Bailey St where existing on-street parking would be removed. Along Ellis Ave S and S Albro PI coordinate with Boeing and the King County Airport and their future plans.
- 3. <u>Coordinate with planned redevelopment</u> Review current planning and development projects for potential collaboration with the preferred alignment (e.g. pedestrian crossing at Warsaw St, airport master plan) and coordinate design with adopted plans.
- 4. <u>Drainage considerations</u> Requires a new curb alignment and drainage structures for the length of the corridor to collect stormwater runoff and adjustments to existing drainage structures that may be located in the shared use path.
- 5. <u>Grading Considerations</u> Review adjacent grades along Ellis Ave S to verify extents of potential retaining walls and railings to accommodate the proposed shared use path.
- 6. <u>Connections to Neighborhood Streets</u> Develop intersection designs that provide safe, comfortable access from neighborhood streets and South Seattle College along Ellis Ave S.
- 7. <u>Adjustments to Fire Hydrants</u> Review fire hydrant locations to determine where adjustments are needed along the east side of Ellis Ave S.
- 8. <u>Alignment near Ruby Chow Park</u> Review opportunities to improve connections and access to the Ruby Chow Park and opportunities to improve the activation of the triangular parcel north of S Hardy St and west of 13th Ave S.



Figure 59 - Map showing location specific design considerations for the Georgetown Connection.

# SHORT-TERM OPPORTUNITIES

The next steps for this project include complete design and construction of the preferred alignment along with short-term opportunities for improving connections and access within the project area. This section summarizes a range of short-term opportunities for improving accessibility and safety between the Georgetown and South Park neighborhood centers until a full build of the preferred concept can be achieved.

# Wayfinding signage and Neighborhood Greenway route

Until the preferred route and street improvements are provided, the installation of wayfinding signage would improve connections north of E Marginal Way S by providing low-cost opportunities to improve connections and direct people walking and riding bicycles to low speed, low volume streets.

### Removing ADA barriers

In the short term, removing existing barriers along the most direct, or preferred route, would assist in providing access to all users. These improvements would include providing curb ramps that meet ADA standards, replacing sections of uplifted concrete in sidewalks, and updating driveway crossings that don't meet ADA requirements.

# Investigate feasibility of using 'Flume' property

The 'Flume' property is undergoing a transfer in ownership from Seattle City Light to Seattle Parks and Recreation (SPR), see page 10 for additional information about the 'Flume' property. Because this property is not public right-of-way, the feasibility of using part of the property as a transportation facility should be discussed and coordinated with SPR.



S Bailey St crossing at Ellis Ave S looking west

# Improve visibility and signage at S Bailey St crossing at Ellis Ave S

Improve signage and visibility at the existing street crossing by reviewing sightlines, and providing consistent signage for vehicles traveling on S Bailey St from both directions; the east and west approaches currently have different signage. This includes trimming trees that obstruct sightlines and reviewing, and removing or relocating existing traffic signs that impact visibility. Additional crosswalk signs or new rectangular rapid flashing beacons (RRFB) could be considered to replace the existing traffic signs and overhead flashing beacons to increase safety.

# Intersection of Flora Ave S and S Myrtle St at E Marginal Way S

This intersection was identified by the community as being a safety concern. The configuration of the intersection, including how Flora Ave S meets S Myrtle St and the proximity to E Marginal Way S, is unique and is perceived as being unsafe by the community. A future study should review opportunities to modify or limit traffic at or through the intersection (e.g. how might the use of a diverter that limits traffic at Flora Ave S to northbound vehicles only improve traffic flow and safety in and around the area).

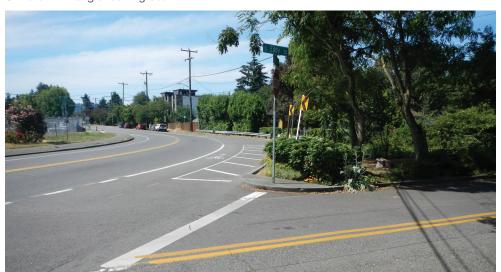
### **Opportunities at Albro Triangle**

The intersection of S Ellis Ave, S Eddy St, and S Albro PI could be reviewed to improve connections from Ellis Ave S and S Albro PI to the Georgetown neighborhood center and residential areas.

### S Albro PI Triangle looking south

# Crosswalks at E Marginal Way S and 16th Ave S

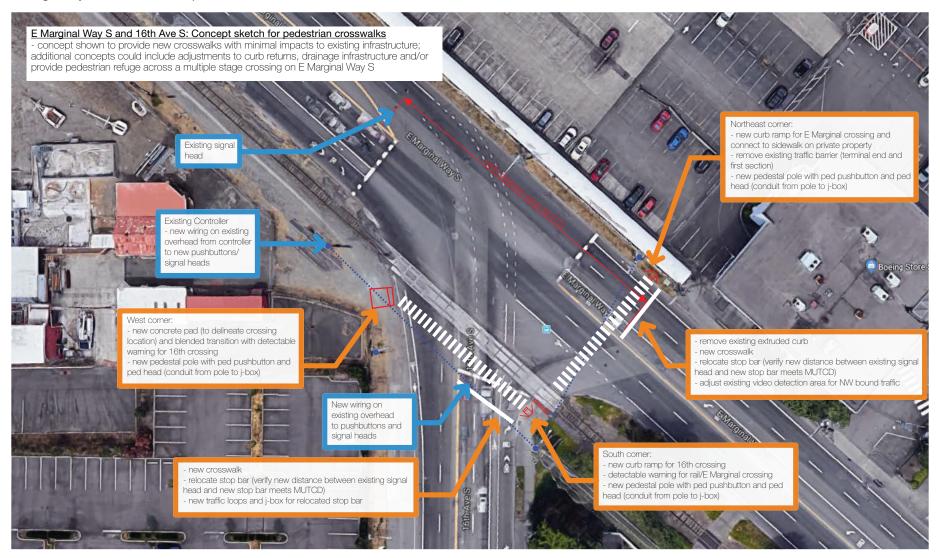
There are no crosswalks at this intersection. Figure 60, on the following page, shows a concept sketch for adding crosswalks at the south and east legs of the intersection to provide at-grade crosswalks for people walking and riding bicycles. This improvement would allow access from the east and west side of 16th Ave S to the north side of E Marginal Way S.



S Albro PI Triangle looking north



Figure 60 - E Marginal Way S and 16th Ave S: Concept Sketch



Georgetown to South Park Connection August 2019

### APPENDIX A - COMMUNITY OUTREACH SUMMARY AND LETTERS OF SUPPORT

### **GTSP Summary of Outreach Preformed by Others**

Outreach findings summarized from files provided by SDOT Initial Summary of findings was based on the following files provided on 7/5/19:

Updated August 5, 2019

Draft for Internal Discussion

MIGISvR #15083

- · Youth Survey Conclusion Summaries
- · Ryan and Diego's Survey Summary Report
- · Georgetown to South Park Trail Community Survey (Responses)

Additional Counts were added to the summary in 4 updates

- 1. File provided on 7/11/19
  - Survey Data Entry
- 2. File provided on 7/15/19
  - Survey Data Entry (additional ballots added)
- 3. Files provided between 7/19/19 and 7/22/19
  - Survey Data Entry (additional ballots added)
  - Georgetown South Park Trail Community Survey (Responses); (additional online responses)
  - Recorrido de Georgetown South Park Encuesta (Responses)
- 4. Files provided on 8/2/19
  - Survey Data Entry (additional ballots added)
  - · Georgetown South Park Trail Community Survey (Responses);(additional online responses)
  - Sticker Counts (from the GTSP Connection Celebration Event)

#### **Community Preference**

I want the trail constructed as soon as possible by using a cost saving approach. Focus on spot improvements. It doesn't have to be nice, just functional and safe.

103 Agree

out of 266 responses

I want the trail to include materials, features, and amenities important to the community, even if it takes more time and money. Make it safe and also really nice to use

221 Agree

85 higher priority

out of 266 responses

out of 129 reponses \*

It's important that the trail connects more people with local businesses and attracts visitors to the neighborhoods.

130 Agree out of 137 responses

\*response was given after wording of responses was changed from Agree/Disagree to

High priority/Low priority

All people need to feel safe using the trail during the day and night time. It should have good lighting, physical separation from motor vehicles, good visibility and no hiding places.

136 Agree out of 137 responses 121 higher priority out of 129 reponses \*

The trail should connect to the City's planned bicycle and transit networks.

122 Agree out of 137 responses 102 higher priority out of 129 reponses \*

The trail should help reduce pollution by adding trees, natural drainage, and other natural elements like green walls or rain gardens

128 Agree out of 137 responses 104 higher priority out of 129 reponses \*

It's important for the trail to have artwork, interpretive signs and/or cultural/historic markers so it feels like an extension of our neighborhood

107 Agree out of 137 responses 53 higher priority out of 129 reponses \*

Facility Type

Which do you prefer? out of 265 responses

80 People walking, rolling and biking share a path together.

77 The places for people biking and rolling are separate from people walking.

108 I don't have a strong preference either way.

**Route Selection** 

Georgetown Connection - choose your favorite option. (Existing street conditions pictured)

out of 292 responses

48 #1 A NEIGHBORHOOD GREENWAY on Flora Ave S that turns on S Eddy St and continues up Ellis Ave S

93 #2 A WALKING/BIKING PATH on Ellis Ave S that becomes a NEIGHBORHOOD GREENWAY within the residential section

151 #3 A WALKING/BIKING PATH on Ellis Ave S, S Albro PI, and 13th Ave S

E Marginal Way S Connection - choose your favorite option. (Existing street conditions pictured)

out of 293 responses

134 #4 NORTH SIDE: A WALKING/BIKING PATH or PROTECTED BIKE LANE on the north side of E Marginal Way

159 #5 TRAIL BY RAIL: A WALKING/BIKING PATH next to the railroad on the south side of E Marginal Way

South Park Connection - choose your favorite option. (Existing street conditions pictured)

out of 282 responses

145 #6 WEST SIDE trail option: WALKING/BIKING PATH on the west side of 16th Ave S leading to the South Park bridge
137 #7 PROTECTED BIKE LANE option: One-way protected bike lanes on both sides of 16th Ave S leading to the South Park bridge

### **Georgetown South Park Trail Community Advisory Group**

gsptcag@gmail.com

TO: Seattle Department of Transportation

RE: Design of the Georgetown to South Park Trail (CIP project No: TC368070)

Aug 7th 2019,

Members of the Georgetown South Park Trail Community Advisory Group (GSPT CAG), are writing in support of three specific route options for the Georgetown South Park Connection.

<u>Extensive input</u> gathered from neighbors makes it clear that the selected route should prioritize...

- People feeling safe using the route during the day and at night means good lighting, good visibility and no hiding places.
- Connecting people with **local businesses**.
- A **connected network** connect to the City's planned bicycle and transit networks.
- **Separation** the space for people biking and rolling are separate from people walking.

After studying the options at length, we agree that developing the following options will ultimately best serve the interests and mitigate concerns of our neighbors.

**Georgetown Connection Option 3:** A walking/biking path on Ellis Ave S, S Albro Pl, and 13th Ave S

- Increases connection to more Georgetown retail businesses and services: Sisters and Brothers, Charles Smith, Hanger Cafe, Neighborcare Health Center.
- Connects people to and promotes increased activity of underutilized Ruby Chow Park and adjacent 'Airport Triangle Park' (<u>Georgetown Open Space Vision Framework priority sites</u>).
- Connects to greater number of bus stops and potential transportation hub on 13th Ave
- Follows the Bicycle Master Plan recommended citywide network route and would bring people within 3 blocks of protected bicycle lanes connecting to southeast Seattle neighborhoods.
- More open sight lines and unobscured street lighting than the alternatives
- We support the <u>Georgetown Merchant Associaiton</u>'s request to retain street parking on S
  Bailey Street. Instead, enhance safety for people sharing Bailey street using
  neighborhood greenways design elements like traffic calming, lane marking and
  signage.

**E Marginal Way S Connection Option 4:** A walking/biking path or protected bike lane on the north side of E Marginal Way

- Consistent street lighting and clear sight lines.
- Eliminates risk of crossing major intersection at Ellis Ave S and E Marginal Way.
- Addresses community preference for separation.
- Connects directly to and promotes increased activity to potential public park and off-leash area at "The Flume" site. (a <u>Georgetown Open Space Vision Framework</u> priority site).
- Trail by rail alternative has inconsistent lighting and potential for blind spots that leave trail users unseen by street users when trains operate. South Park is already burdened with by one "Scary Trail". We cannot afford to build another one.

**South Park Connection Option 7:** One-way protected bike lanes on both sides of 16th Ave S leading to the South Park Bridge.

- Addresses community preference for separation.
- Separate one-way bike lanes better address the limited sidewalk space available on the South Park bridge a choke point in this 'all abilities' walk/bike route. As one survey respondent explains, "...if there's one path on the west side, the sidewalk on the bridge could get too crowded with bikes going both ways...". Distributing bike traffic on both sides of the bridge makes better use of limited space. It also accommodates more users from anticipated increased use 96% of survey respondents said they would walk or ride a bike more often If there was a safe and comfortable walking/biking trail.

We urge the City to prioritize design resources to develop these options.

Sincerely,

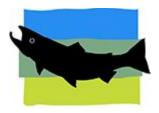
Georgetown South Park Trail Community Advisory Group <a href="mailto:gsptcag@gmail.com">gsptcag@gmail.com</a>

Sam Farrazaino Peaches Thomas

Maria-Jose Soerens Rosario Maria Madina

Richard Brown Bunthay Cheam

Hugo Avalos



South Park Neighborhood Association

August 8, 2019

Dear Seattle Department of Transportation,

RE: Georgetown to South Park Trail (CIP project No: TC368070)

The South Park Neighborhood Association writes to support three route options for the Georgetown to South Park Trail. Duwamish Valley Safe Streets' community survey shows strong consensus around what the community's preferences are for this trail. The three route options meet the needs and values of the over 400 community members who responded to the community survey.

### The community wants:

- To FEEL SAFE when using the trail at all hours. Feeling safe includes lighting, physical separation from motor vehicles, good visibility and no hiding places.
- Connect main street to main street connect Georgetown and South Park's business districts.
- A connected network connecting the Duwamish valley to the City's existing and bicycle and transit networks.

These three options achieve the community's desires for this project:

- A walking/biking path on Ellis Ave S, S Albro PI, and 13th Ave S
- A walking/biking path or protected bike lane on the north side of E Marginal Way
- One-way protected bike lanes on both sides of 16th Ave S leading to the South Park Bridge.

The South Park Neighborhood Association urges you to strongly weigh the needs and opinions of the community during the design phase.

Many thanks,

Aley Thompson, South Park Neighborhood Association - <a href="mailto:spnaseattle@gmail.com">spnaseattle@gmail.com</a>

### APPENDIX A - COMMUNITY OUTREACH SUMMARY AND LETTERS OF SUPPORT



**Technical Advisory Group** 

Community Coalition for Environmental Justice

The Duwamish Tribe

Environmental Coalition of South Seattle

Georgetown Community Council

**IM-A-PAL** Foundation

People For Puget Sound program, Washington Environmental Council

Puget Soundkeeper Alliance

South Park Neighborhood Association

Washington Toxics Coalition

Waste Action Project

Working to ensure a Duwamish River Cleanup that is accepted by and benefits the community and protects fish, wildlife, and human health.

210 S. Hudson St., Suite 332 Seattle, WA 98134 206.954.0218 contact@duwamishcleanup.org www.duwamishcleanup.org August 6, 2019

To: Seattle Department of Transportation

RE: Design of the Georgetown to South Park Trail (CIP project No: TC368070

Dear SDOT,

I am writing in support of the efforts made by the Georgetown South Park Trail Community Advisory Group. The Duwamish River Cleanup Coalition elevates the voice of those impacted by the Duwamish River pollution and other environmental injustices to advocate for a clean, healthy, and equitable environment for people and wildlife. We promote place-keeping and prioritize community capacity and empowerment. To that end, we believe strongly in the process of community engagement that both the GSPTCAG as well as SDOT has been utilizing. We recognize the community priorities for this trail as safety and connection.

We agree with the GSPTCAG the following options are best suited for the needs as voiced by community:

A walking/biking path on Ellis Ave S, S Albro PI, and 13th Ave S; A walking/biking path or protected bike lane on the north side of E Marginal Way; One-way protected bike lanes on both sides of 16th Ave S leading to the South Park Bridge.

DRCC supports this process and the findings that have resulted and look forward to hearing from SDOT and GSPTCAG that the community's priorities will be realized.

Sincerely,

Paulina Lopez

Executive Director, Duwamish River Cleanup Coalition



<u>TO</u>: Seattle Department of Transportation <u>FROM</u>: Georgetown Open Space Committee

DATE: 8/2/19

SUBJECT: Design of the Georgetown to South Park Trail (CIP project No: TC368070)

On behalf of the Georgetown Open Space Committee, I am writing to share with you the Committee's preferred routes for the Georgetown-South Park Trail based on the priorities of our Committee and the Georgetown Open Space Vision Framework.

### **GEORGETOWN CONNECTION**

### OPTION #3: Ellis, Albro, 13th

- Potential to add tree canopy along this arterial street
- More open sight lines and unobscured street lighting than the alternatives
- Follows the Bicycle Master Plan recommended citywide network route and would connect to the existing bicycle route to Beacon Hill.
- Connects people to and promotes increased activity of underutilized Ruby Chow Park and adjacent 'Airport Triangle Park' (Georgetown Open Space Vision Framework priority sites).

### **E MARGINAL WAY S CONNECTION**

### **OPTION #4: North Side of E Marginal Way**

- Connects directly to and promotes increased activity to potential public park and off-leash area at "The Flume" site. (a Georgetown Open Space Vision Framework priority site).
- The north side of E Marginal has consistent, existing street lighting and clear sight lines.
- Eliminates risk of crossing major intersection at Ellis Ave S and E Marginal Way.
- Trail by rail alternative has inconsistent lighting and potential for blind spots that leave trail users unseen by street users when trains operate.
- Potential of traffic calming on E Marginal Way. 35mph speed limit is not obvious with 5-lane highway appearance.

#### SOUTH PARK CONNECTION

### OPTION #7: One-way protected bike lanes on both sides of 16th

- This option addresses community preference for separation of bike & walking spaces.
- More options will increase likelihood of usage.

Please review "Pedestrian & Bicycle Connections to South Park" – from the Georgetown Open Space Vision Framework – pages 58-61 – for further input from the Georgetown Community.

Please let us know if you have any questions or we can provide further background information to support these thoughts.

Sincerely,

Patty Foley, Chair

Georgetown Open Space Committee

POST OFFICE BOX 80021 \* SEATTLE, WA \* 98108



**The Georgetown Open Space Committee** is a volunteer group of residents working towards improving and increasing green spaces and connectivity in Georgetown and our surrounding communities. We are specifically following the projects outlined in the <u>Georgetown Open Space Vision Framework</u> which was created in 2017 with the assistance of Seattle Parks Foundation. The Georgetown-South Park Trail is one of the top 10 priority projects from the Open Space Vision Framework.

The guiding principles of our Committee include:

- Improve facilities for pedestrian & bicycle safety
- Leverage opportunities to increase tree canopy
- Improve vacant land on public property (The Flume)
- Create more green buffer zones around the residential areas
- Improve safe routes & crossings

### From pg 13 of the Vision Framework:

Georgetown's closest residential neighbors are South Park to the southwest and Beacon Hill to the east. Reaching these neighborhoods on foot or by bike presents many challenges. Getting to South Park requires crossing E. Marginal Way S. and then crossing the Duwamish at either the South Park Bridge or the 1st Ave South Bridge. Getting to Beacon Hill requires crossing the I-5 corridor at one of two bridge connections. Many points along the way feel unsafe to residents due to lack of continuous sidewalks, a dearth of safe crossings, insufficient bike lanes, proximity to freight, [unsanctioned] homeless encampments, and generally dilapidated roadways. Improving facilities and connections for pedestrians and bicyclists will help residents better access all open space and public resources in the three communities. It will also help connect two regional trails: the Chief Sealth Trail on Beacon Hill and the Duwamish River Trail in South Park



1201 S. Vale Street Seattle. WA 98108

August 17, 2019

To Whom It May Concern:

On behalf of the Georgetown Merchants Association (GMA), please accept our enthusiastic endorsement of the proposed Georgetown to South Park Trail project. The GMA considers this an important development in our ongoing efforts to advance equitable economic and cultural development in the Georgetown business corridor.

We have worked closely with community member Jesse Moore of Duwamish Valley Safe Streets in all planning phases. We found him fully engaged and receptive to our input. His recent presentation to our membership was warmly received.

The GMA has decided to endorse route option 3, using Ellis Ave, S Albro, and 13th Ave, as this option connects to the greatest number of current and future retail locations within the business corridor. However, we are strongly opposed to the loss of parking on S Bailey Street, between 12th and 13th avenues that is being considered with this option. We support using alternative means of increasing safety and comfort for people on Bailey that would not reduce the current number of vehicle parking spaces on this block.

Please don't hesitate to call if you have any questions.

Sincerely,

Larry Reid
President, Georgetown Merchants Association
Mobile: 206-669-9059

Georgetown Tiny House Village 1020 S Myrtle St Seattle, WA 98108

### To Whom it May Concern:

We wanted to write a letter of support for a pedestrian/bike path between South Park and Georgetown. The majority of our 60 adults living here get around by walking or biking and having a safe, well lit trail benefits Georgetown, South Park, and the village. It encourages more people to enjoy what each vibrant area has to offer. Connecting these two communities with environmentally friendly paths is a substantial way to improve quality of life in the south end.

We love the idea of option 4 going directly in front of our tiny house village as another way to meet more of our neighbors and give them a chance to get to know us. We look forward to seeing the designs become reality.

Thank you.

That would be shown that the sound of the sou

## APPENDIX B - FLUME CONCEPT

Alignments along the north side of E Marginal Way S are contingent on using the Flume Property to provide a connection to S Myrtle St and avoiding existing driveways along E Marginal Way S west of the Flume Property. A connection is recommended on the eastern portion of the parcel to maximize space for Seattle Parks' future off-leash area, allow for sightlines, and reduce grading that may be needed to construct the connection. The alignment will also need to work around the existing building encroachment; we understand the encroaching fence will be relocated.

The facility type should match what is proposed along E Marginal Way S and S Myrtle St. The width of the facility will be 16'-20' and depend on the type of facility and width of buffer/setbacks. A minimum 16' allows for a 12' shared use path with 2' shoulders while the maximum allows for 2' separation between separated walking (6') and bicycling (10') facilities and a 1' buffer on each side.

Design considerations for the conceptual alignments shown:

### **Direct Route**

- Maximize space for Parks' off-leash area
- Consider sightlines at E Marignal Way S due to existing fence
- Good sightlines at S Myrtle street away from private parking along west edge of parcel

### Meandering Route

- Shifts entry west to improve sightlines at E Marginal Way S
- Creates a space between the fence and entry that would be separate from Parks' off-leash area
- Reduces space for park's off-leash area

<u>Drainage Considerations</u> - Seattle Public Utilities DSO Map shows an existing 24" storm drain inside the parcel that discharges downstream to the Duwamish River; the map also states this system is capacity constrained, which requires the Peak Control Standard for flow control. This requirement should be confirmed during preliminary design. The project will also require On-Site Stormwater Management for new/replaced hard surfaces, however, water quality treatment will not be required if no pollution generating hard surfaces are proposed.

