



AGENDA

STAFF PRESENTATIONS

PUBLIC COMMENT

SHORELINE CITY COUNCIL VIRTUAL/ELECTRONIC REGULAR MEETING

Monday, June 1, 2020
7:00 p.m.

Held Remotely on Zoom
<https://zoom.us/j/95015006341>

In an effort to curtail the spread of the COVID-19 virus, the City Council meeting will take place online using the Zoom platform and the public will not be allowed to attend in-person. You may watch a live feed of the meeting online; join the meeting via Zoom Webinar; or listen to the meeting over the telephone.

The City Council is providing opportunities for public comment by submitting written comment or calling into the meeting to provide oral public comment. To provide oral public comment you must sign-up by 6:30 p.m. the night of the meeting. Please see the information listed below to access all of these options:



[Click here to watch live streaming video of the Meeting on shorelinewa.gov](#)



Attend the Meeting via Zoom Webinar: <https://zoom.us/j/95015006341>



Call into the Live Meeting: (888) 475-4499 - Webinar ID: 950 1500 6341



[Click Here to Sign-Up to Provide Oral Testimony](#)

Pre-registration is required by 6:30 p.m. the night of the meeting.



[Click Here to Submit Written Public Comment](#)

Written comments will be presented to Council and posted to the website if received by 4:00 p.m. the night of the meeting; otherwise they will be sent and posted the next day.

	<u>Page</u>	<u>Estimated Time</u>
1. CALL TO ORDER		7:00
2. ROLL CALL		
(a) Pride Month Proclamation	2a-1	
3. REPORT OF THE CITY MANAGER		
4. COUNCIL REPORTS		
5. PUBLIC COMMENT		
<i>Members of the public may address the City Council on agenda items or any other topic for three minutes or less, depending on the number of people wishing to speak. The total public comment period will be no more than 30 minutes. If more than 10 people are signed up to speak, each speaker will be allocated 2 minutes. Please be advised that each speaker's testimony is being recorded. Speakers are asked to sign up by 6:30 p.m. the night of the meeting via the <u>Remote Public Comment Sign-in form</u>. Individuals wishing to speak to agenda items will be called to speak first, generally in the order in which they have signed.</i>		
6. APPROVAL OF THE AGENDA		7:20

7. CONSENT CALENDAR

7:20

- (a) Approving Minutes of Regular Meeting of March 23, 2020 7a-1
- (b) Authorizing the City Manager to Execute a Construction Contract with Insituform Technologies, LLC in the Amount of \$384,381 for the 2020 CIPP Stormwater Pipe Repair Project 7b-1
- (c) Authorizing the City Manager to Execute Supplement No. 1 to Contract 8463 with H. Lochner for Design and Environmental Services for the SR-523 & Interstate-5 Interchange Project in the amount of \$865,191 7c-1

8. ACTION ITEMS

- (a) Public Hearing and Adoption of the 2021-2026 Transportation Improvement Plan 8a-1 7:20
All interested persons are encouraged to listen and/or attend the remote online public hearing and to provide oral and/or written comments. Written comments should be submitted to Nytasha Walters, Transportation Services Manager, at nwalters@shorelinewa.gov by no later than 4:00 p.m. local time on the date of the hearing. Any person wishing to provide oral testimony at the hearing is encouraged to register via the [Remote Public Comment Sign-in form](#) at least thirty (30) minutes before the start of the meeting. A request to sign-up can also be made directly to the City Clerk at (206) 801-2230.
- (b) Adopting Resolution No. 459 - Temporarily Authorizing Meetings and Public Hearings to be Held Remotely Due to the COVID-19 Public Health Emergency 8b-1 7:40
 - Staff Report
 - Public Comment
 - Council Action
- (c) Adopting Ordinance No. 889 - Shoreline Municipal Code 10.05 – Model Traffic Ordinance (MTO) Updates 8c-1 8:00

9. STUDY ITEMS

- (a) Discussing the Project Status and Progress for the N 148th Street Non-Motorized Bridge Project 9a-1 8:20

10. ADJOURNMENT

8:40

The Council meeting is available in closed caption via the live streaming and archived video on <http://shorelinewa.gov>. Any person requiring a disability accommodation should contact the City Clerk's Office at 801-2231 in advance for more information. For TTY service, call 546-0457. For up-to-date information on future agendas, call 801-2230 or see the web page at www.shorelinewa.gov. Council meetings are shown on Comcast Cable Services Channel 21 and Verizon Cable Services Channel 37 on Tuesdays at 12 noon and 8 p.m., and Wednesday through Sunday at 6 a.m., 12 noon and 8 p.m.

CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE: Proclamation Declaring June Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) Pride Month
DEPARTMENT: Community Services
PRESENTED BY: Suni Tolton, Community Services
ACTION: ☐ Ordinance ☐ Resolution ☐ Motion
 ☐ Discussion ☐ Public Hearing ☒ Proclamation

ISSUE STATEMENT:

Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) Pride Month is celebrated every year in the month of June to honor the 1969 Stonewall Uprising in New York City. The Stonewall Uprising was a tipping point for the Gay Liberation Movement in the United States. The purpose of the commemorative month is to recognize the impact that lesbian, gay, bisexual and transgender individuals have had on history locally, nationally, and internationally.

Many Shoreline youth, adults, residents, and employees identify as LGBTQ or who have friends and family who do. Although much progress has been made through more inclusive LGBTQ policies, discrimination still occurs. In Seattle, LGBTQ-related hate crimes have nearly tripled since 2014 (King County Community Health Needs Assessment 2018/2019). The 2018 Healthy Youth Survey found 29% of students who identify as LGBTQ report more bullying at school than their straight peers (16%). Issuing Shoreline's Pride Month proclamation is a simple action that many other cities have taken to demonstrate that Shoreline is welcoming and committed to being an inclusive city to the LGBTQ community and for all.

RECOMMENDATION

The Mayor should sign the proclamation.

Approved By: City Manager **DT** City Attorney **MK**



PROCLAMATION

WHEREAS, the Shoreline City Council is committed to ensuring that Shoreline is a welcoming, inclusive, and safe community for our Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) families, friends, neighbors, and co-workers; and

WHEREAS, the month of June was designated Pride Month to commemorate the Stonewall Riots of 1969, which is one of the major events that led to the LGBTQ rights movement; and

WHEREAS, our LGBTQ community members contribute to the cultural fabric of our community, giving their time, talent, labor, and financial resources to supporting Shoreline; and

WHEREAS, although substantial gains have been achieved, many LGBTQ community members face discrimination simply for being who they are and who they love; and

WHEREAS, the struggle for dignity, equality, and LGBTQ rights continues to be important and necessary; and

WHEREAS, in solidarity with the LGBTQ community, the Pride flag will fly at Shoreline City Hall for the month of June.

NOW, THEREFORE, I, Will Hall, Mayor of the City of Shoreline, on behalf of the Shoreline City Council, do hereby proclaim June 2020 as

Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ) PRIDE MONTH

in the City of Shoreline and affirm the City's support and acceptance for children, adults, families, and allies of the LGBTQ community.

Will Hall, Mayor

CITY OF SHORELINE
SHORELINE CITY COUNCIL
SUMMARY MINUTES OF REGULAR MEETING

Monday, March 23, 2020
7:00 p.m.

Council Chambers - Shoreline City Hall
17500 Midvale Avenue North

PRESENT: Mayor Hall, Deputy Mayor Scully, Councilmembers McConnell, McGlashan, Chang, Robertson, and Roberts

ABSENT: None.

1. CALL TO ORDER

At 7:00 p.m., the meeting was called to order by Mayor Hall who presided.

2. FLAG SALUTE/ROLL CALL

Mayor Hall led the flag salute. Upon roll call by the City Clerk, all Councilmembers were present via Zoom videoconference.

(a) Proclaiming Cesar Chavez Day

Mayor Hall announced that he signed a proclamation recognizing Cesar Chavez Day and shared highlights of Mr. Chavez's contributions. Mayor Hall explained that while Council meetings are held remotely online, there will be no formal presentations of proclamations to recipients.

On behalf of the City of Shoreline, Mayor Hall expressed sympathy for the impacts of COVID-19 on the community and reinforced that the region is taking extraordinary steps to respond to this crisis. Mayor Hall emphasized the importance of staying home to slow the spread of the virus. He stated that in 48 hours all non-essential businesses in Washington State are ordered by the Governor to close.

Mayor Hall reminded the community to practice kindness during this difficult time.

3. REPORT OF CITY MANAGER

Debbie Tarry, City Manager, provided reports and updates on the City's response to the COVID-19 outbreak, including reinforcing the Governor's Order to "Stay Home and Stay Healthy" by encouraging people to stay home, avoid nonessential trips, and observe social distancing guidelines. She reminded businesses of the regulations in place that must be followed while open. Ms. Tarry shared resources for City and County information regarding the pandemic.

4. COUNCIL REPORTS

Deputy Mayor Scully said he attended a conference call meeting for the WRIA-8 Salmon Recovery Council. He said that a major grant was approved to study predator fish in Lake Union and there has been progress in local recovery efforts.

5. PUBLIC COMMENT

Krishnakant Nammi, Shoreline resident, through remote participation, spoke in support of maintaining a usable pool in the City. He said he and his family have taken swim lessons in Shoreline for many years. He stated that it is the Council's responsibility to at least maintain, if not enhance, civic amenities and urged the Council to take immediate and concrete action to resolve this issue.

Barbara Johnstone, Shoreline resident and member of Save Shoreline Trees, through remote participation, said she looks forward to seeing the WSDOT sidewalk redesign and arborist reports for the surrounding streets. She expressed relief that an alternate design will retain most trees and she requested that all the healthy conifers surrounding the area be protected.

Rebecca Jones, Shoreline resident, through remote participation, spoke in support of Save Shoreline Trees. She said the impact of removing large, established conifer trees has lasting effects. She listed the benefits they provide and urged the Council to be leaders in preserving trees.

Kathleen Russell, Shoreline resident, through remote participation, expressed support for King County-Cities Climate Collaboration (K4C) Joint Climate Commitments. She said to achieve greenhouse gas goals the tall tree canopy must be preserved, and Council should be proactive and prevent tall tree removal on public and private properties.

6. APPROVAL OF THE AGENDA

The agenda as revised, was approved by unanimous consent.

7. PROCEDURAL ISSUES

Deputy Mayor Scully moved to suspend the Council Rule regarding voice vote and direct the Clerk to do roll call vote for all votes when Council is meeting remotely. The motion was seconded by Mayor Hall.

Deputy Mayor Scully explained that this will facilitate record keeping since it is difficult to accurately record voice votes when meeting remotely.

Councilmember Roberts encouraged the Mayor to use unanimous consent in lieu of a roll call vote if it appears Councilmembers have no objections to the proposal.

The motion passed unanimously, 7-0.

Councilmember McConnell moved to suspend Council Rules to omit the Flag Salute from the agenda when Council is meeting remotely. The motion was seconded by Mayor Hall.

Councilmember McConnell said it is important to hold efficient meetings at this time, and that the motion does not imply a lack of interest in pledging allegiance.

The motion passed 6-1, with Deputy Mayor Scully voting against it.

8. CONSENT CALENDAR

Upon motion by Deputy Mayor Scully and seconded by Councilmember McConnell and unanimously carried, 7-0, the following Consent Calendar items were approved:

(a) Approving Expenses and Payroll as of March 6, 2020 in the Amount of \$2,887,073.77

***Payroll and Benefits:**

Payroll Period	Payment Date	EFT Numbers (EF)	Payroll Checks (PR)	Benefit Checks (AP)	Amount Paid
1/26/20-2/8/20	2/14/2020	89936-90195	16927-16943	77796-77801	\$726,567.28
2/9/20-2/22/20	2/21/2020	90196-90459	16944-16967	78052-78059	\$944,892.29
					<u>\$1,671,459.57</u>

***Wire Transfers:**

Expense Register Dated	Wire Transfer Number	Amount Paid
2/25/2020	1158	\$13,622.59
		<u>\$13,622.59</u>

***Accounts Payable Claims:**

Expense Register Dated	Check Number (Begin)	Check Number (End)	Amount Paid
2/12/2020	77744	77749	\$125,293.77
2/12/2020	77750	77753	\$184,207.29
2/12/2020	77754	77764	\$14,277.43
2/12/2020	77765	77765	\$504.42
2/12/2020	77766	77792	\$22,790.67
2/12/2020	77793	77795	\$160.33
2/18/2020	77802	77803	\$65,459.38
2/19/2020	77804	77812	\$181,449.74
2/19/2020	77813	77813	\$29,200.41
2/19/2020	77814	77836	\$45,004.87
2/19/2020	76896	76896	(\$7.27)
2/19/2020	77837	77837	\$7.27

2/19/2020	77838	77841	\$3,806.51
2/19/2020	77842	77859	\$63,299.27
2/26/2020	77860	77881	\$174,390.27
2/26/2020	77882	77953	\$1,861.40
2/26/2020	77854	77965	\$46,851.38
2/26/2020	77966	77981	\$22,220.65
2/26/2020	77982	77986	\$7,086.18
2/26/2020	77987	77987	\$2,076.27
2/26/2020	77988	77993	\$53,317.29
2/28/2020	77994	77995	\$6,058.38
2/28/2020	77996	77996	\$5,174.69
3/3/2020	77997	78018	\$103,970.48
3/3/2020	78019	78026	\$9,328.35
3/3/2020	78027	78041	\$31,794.00
3/3/2020	78042	78051	\$1,388.18
3/6/2020	78060	78060	\$1,020.00
			<u>\$1,201,991.61</u>

- (b) **Authorizing the City Manager to Execute a Professional Services Contract with Skyhawks Sports Academy, LLC in an Amount Not to Exceed \$250,000 for Recreation Services**
- (c) **Authorizing the City Manager to Execute a Professional Services Contract with Play-Well TEKnologies in an Amount Not to Exceed \$150,000 for Recreation Services**
- (d) **Authorizing the City Manager to Execute a Professional Services Contract with North American Youth Activities, LLC, in an Amount Not to Exceed \$150,000 for Recreation Services**
- (e) **Authorizing the City Manager to Execute a Service Contract with the King County Directors Association in the Amount of \$323,910.33 for the Purchase and Installation of Playground Equipment at Sunset School Park**
- (f) **Authorizing the City Manager to Execute a Professional Services Contract with Public Services and Enforcement LLC in the Amount of \$128,475 for Leash Law Enforcement Services in City Parks**
- (g) **Adopting Public Emergency Ordinance No. 887 – Temporarily Increasing the City Manager Purchasing Authority in Response to COVID-19 for 30 Days**

9. ACTION ITEMS

- (a) Adopting Public Emergency Resolution No. 456 - Authorizing the City Manager to Issue Temporary Emergency Waivers or Suspensions of Regulatory Obligations in

the Shoreline Municipal Code Necessary to Preserve Life, Health, and Safety Related to COVID-19

Margaret King, City Attorney, delivered the staff presentation. Ms. King explained that under RCW 35(A)13.080, the City Manager has authority to oversee that laws and ordinances are executed but does not have authority to waive those policies. She stated that proposed Resolution No. 456 is patterned after authority given to the Governor which allows them to waive certain laws during an emergency. Ms. King shared examples of some actions the City Manager has taken in response to COVID-19. Ms. King said the Councilmember-proposed amendment to the resolution proposed limits the duration of the temporary authority to 14 days.

Mayor Hall opened the public comment period. Since no one had pre-registered to speak on this item, the Mayor Hall closed the comment period.

Deputy Mayor Scully moved adoption of Resolution No. 456 as proposed by staff. The motion was seconded by Councilmember McConnell.

Mayor Hall, Deputy Mayor Scully, and Councilmembers McGlashan, Robertson, Chang, and McConnell expressed support for Resolution No. 456.

Councilmember Roberts thanked staff for their work in drafting Resolution No. 456 and for the response to the questions he submitted prior to the meeting, but said he is not convinced this Resolution is necessary because the Governor's authority and access to legislators is different than what is available at the City level. He continued that this Resolution gives the City Manager a very broad scope of authority and he feels it is important to preserve the influence of the elected officials. He said he is skeptical of the Resolution as is and the only way he could support it is by amending it to include an expiration date.

Deputy Mayor Scully said he shares Councilmember Roberts' concerns and said he questions any measure that allows waiving laws. He recognized that the types of actions the City Manager might need to take in an emergency should not be hung up on procedure. He said his expectation is that this authority will be used narrowly.

Both Deputy Mayor Scully and Councilmember Roberts emphasized that their stance on this issue does not reflect on the leadership of the current City Manager.

Councilmember McGlashan said the Council needs to keep in mind that they are elected as policy makers, while the City Manager and staff run the City, so it is prudent for them to be able to make those decisions. He expressed trust in the City Manager's decision making.

Councilmember Robertson thanked City leadership for the decisions that have been made so far in response to the COVID-19 outbreak and said she appreciates the perspectives brought forward by her fellow Councilmembers. She asked if there is a requirement included that Council be made aware of all decisions that are made. Ms. Tarry said the Resolution has a requirement that the City Manager communicate all emergency management actions to the Council. She said it also requires that the policies be posted on the City's website for public notice.

Councilmember Chang said she feels well informed about the actions the City Manager has taken thus far.

Councilmember McConnell agreed that the City Manager has kept the Council abreast of all decisions made and added that the decisions are being made in a well-informed manner. She added that she is proud of the actions taken by the City to-date.

Mayor Hall said he would be supporting the Resolution as recommended by staff. He observed that in an emergency situation it may be that the most prudent action is the most immediate one.

Councilmember Roberts moved to amend Resolution No. 456 by striking section 1(c) in its entirety and replacing it with “The City Manager’s orders shall expire fourteen (14) days after issuance unless a majority of the City Council votes to extend the Order.” The motion was seconded by Deputy Mayor Scully.

Councilmember Roberts offered that with the way the Resolution is drafted it takes a majority to overturn the City Manager’s decision. He said his proposed amendment reverses it so that the City Council as a whole is able to voice agreement with the City Manager.

Mayor Hall said he will be opposing the amendment because in an emergency he would rather have staff, in consultation with other experts, making the decisions to protect public health and lives.

Deputy Mayor Scully said he does not think the amendment’s intent or effect would be to reduce the ability of City staff to respond. He added that he considers it as a necessary safeguard and takes the pressure of decision making off staff. He said Ms. Tarry should not have to shoulder that responsibility alone.

Councilmember McGlashan said he opposes the amendment because Council will retain the ability to revoke the authority at any time.

The motion failed 3-4, with Deputy Mayor Scully and Councilmembers Robertson and Roberts voting in favor.

The main motion passed 6-1, with Councilmember Roberts voting against.

10. STUDY ITEMS

- (a) Discussing Public Emergency Resolution No. 455 – Establishing a Temporary Moratorium on Residential Tenant Evictions

Jim Hammond, Intergovernmental Program Manager, delivered the staff presentation. Mr. Hammond said this Resolution recognizes the impacts the COVID-19 public health emergency may have on renters and shared steps that other regional entities have taken to restrict or prohibit eviction processes at this time. He listed the elements of the moratorium as established in other cities and said staff does not recommend adopting Resolution No. 455.

Deputy Mayor Scully thanked Councilmember Roberts for proposing this Resolution, however, he said he does not want to duplicate the efforts being made at the State level. He said he worries about the scope and duration of the financial impact this emergency will have on community members and wants to prioritize implementing a recovery that keeps people from being homeless while not bankrupting landlords.

Councilmember Chang said evictions at this time would be a public health disaster and she does not think the City needs to add to the State policy. She said she supports what Governor Inslee has done, and this is a time for compassion. She stated that although she is a rental property owner, she feels she can be fair in her assessment of this Resolution. She spoke on the costs associated with property management from the owner's perspective. She said she would like to look at what Shoreline is doing in the ways of helping with rental assistance. She said it is likely that this sort of moratorium is going to be extended, and she hopes it happens at the State level, since the State can provide resources at a more systematic level.

Councilmember Roberts said cities have limited control over what is happening in their economies. He said this moratorium would not help people who must pay mortgages. He appreciates what Governor Inslee has put in place statewide and he is hopeful for the legislative package that is being put together to provide direct cash assistance. He said while he is pleased with these efforts, eviction often leads to related negative consequences for the renter and Council should continue to consider thinking about a City level eviction moratorium that enhances the statewide one.

Councilmember McGlashan asked if action on this could be taken later, if the statewide moratorium is not extended and the City determines that it is necessary. Ms. King said the Council could take action at any time.

Councilmember Robertson said she appreciates the perspectives Councilmember Roberts and Councilmember Chang have offered. She said right now she does not feel the City needs to take measures beyond the action that has been taken at the State level. She is interested in seeing what small business support is offered in response to the COVID-19 crisis and she hopes the Council continues to discuss rental insurance because of the myriad of crises regionally.

Councilmember McConnell said she does not support the Resolution because she believes the need is well managed at the state level. She said as a small business owner who rents property, she also is concerned about the effects on landowners. She emphasized that she does not want to see anyone evicted during this time and that the financial ramifications to this emergency are significant for the entire community.

Mayor Hall said he appreciates the issue being brought up and said evictions have tremendous negative consequences. He said he wants to support the centralized State action on this issue, and does not think there is a gap large enough that requires City intervention. He said he does not support further action on this Resolution unless it appears that State action will not last as long as the emergency need warrants.

Mayor Hall summarized that, at this point, Council feels they have had a thorough discussion on the topic and agreed to postpone taking action at this time.

(b) Discussing Resolution No. 449 - Expressing the City's Support for the King County-Cities Climate Collaboration (K4C) Joint Climate Commitments

Autumn Salamack, Environmental Services Coordinator, delivered the staff presentation. Ms. Salamack said the City was a founding member of the K4C in 2011 and holds an ongoing Interlocal Agreement with them. She explained that working regionally makes a big difference when it comes to reducing greenhouse gas emissions. She stated that local governments can play a big role in reducing community scale emissions if working in a united manner. She listed the shared benefits of the K4C Collaboration, which include partnership, coordination, solutions, and funding and resources directed towards the shared commitment.

Ms. Salamack reviewed the K4C Principles (the Joint Climate Commitments) developed in 2014 and said in 2019 a refresh of the Commitments was recommended by K4C members. She continued that in support of the effort the County hosted public workshops to generate feedback on how climate change could be best addressed. She shared highlights of the 2017 King County Communitywide Greenhouse Gas Emissions Inventory and Trends report. She said that while the trends are encouraging, much more needs to be done to meet the goal of 80% reduction by 2050. She displayed the nine core actions identified by King County that would best help meet that goal. She showed a graph that exhibited how the combined actions could help meet the regional target. Ms. Salamack said the Joint Commitments identify pathways, policy commitments, and potential projects and programs that relate to key areas of action and help drive deep cuts to greenhouse gas emissions and she display the ten core areas of focus.

Ms. Salamack listed the key updates to the 2019 Joint Commitments. She said adopting the Joint Commitments is a voluntary action that reaffirms the City's ongoing commitment to mitigate climate change and listed the participants regionally who intend to endorse the Commitments. She concluded by saying there has been active Council and staff participation in the K4C over the past several years.

Councilmember Chang asked how this addresses the target of less than 1.5 degrees sea warming. Ms. Salamack said she has reached out to King County to ask if the updated Commitments reflect that change and their response is that the updated Commitments were recommended in mid-2019 and could not be completely updated without going through the process again. She explained that since the K4C targets were set, the State has taken action to be more aggressive in the reduction of greenhouse gas targets. She concluded that it is difficult to know if the current goal to reduce greenhouse gas emissions is sufficient to encapsulate a 1.5 degree change, but the action planned over the next 10 years is very aggressive, and there has been a commitment made to reevaluating the 2050 target in partnership with local cities to make sure the 1.5 degree limit is being encapsulated.

Mayor Hall added that the intent was to enhance the Commitments in a way that works for the entire coalition, and that Shoreline is moving faster than some other cities. He said Ms. Salamack

is doing a great job at the staff level and he expects that the current goals of K4C may need to be revised.

Councilmember Robertson said signing on to the Commitments does not mean that it is as much as Shoreline will do, and the City will continue to be more aggressive and remain in a leadership role in its environmental work.

Councilmember Roberts said most of the emissions are coming from the transportation and building sectors, and Shoreline has done a great job of planning for increased density and more efficient building use. He said the City needs to consider how it can be a regional leader in encouraging other cities to adopt the goals and pressure the federal delegations to reduce the amount of vehicle usage. He said during this pandemic we have seen emissions drop precipitously and so therefore it seems possible for large segments of the workforce to work from home and reduce single car usage.

It was generally agreed that there is Council support for Resolution No. 449 and that it should return as a Consent Item.

(c) Discussing the 2020-2022 City Council Goals and Work Plan

John Norris, Assistant City Manager, delivered the staff presentation. Mr. Norris reviewed the background on the annual goal setting process at the Strategic Planning Workshop and said it was determined that the proposed Goals and Work Plan reflect a continued focus toward achievement of Vision 2029. He elaborated that Council gave direction for amendments to the action steps for Council Goals 1 and 2. Mr. Norris displayed a list of the Proposed 2020-2022 City Council Goals and asked for feedback on the proposed action step amendments as detailed in the staff report.

Councilmember Roberts said he questions the availability of resources to dedicate to the Goals, considering the financial impacts that will result in response to the COVID-19 pandemic. He observed that the Goals have the effect of setting the project priorities and therefore, the budget, for the City. He wondered if the Goals should reflect where the City is today, rather than prior to the pandemic.

Mayor Hall said that although the economic times have changed, and will continue to change, he feels spending time trying to modify the Goals to unknown cost constraints would not be a worthwhile effort at this time. He said he would be more comfortable adopting the Goals as updated at the Strategic Planning Workshop, with the recognition that changes in revenues and expenditures will limit what can be done. He added that he is working with staff to raise the issues of economic impact of the pandemic on local governments and the communities they serve.

Councilmember Chang said she thinks it is clear that the City and staff will be focusing on a response to the current emergency, and it goes without saying that it will be a big part of the Council actions moving forward.

It was agreed that the City Council Goals and Work Plan would return as a Consent Item, with the recognition of the budget impacts COVID-19 may bring to priorities.

- (d) Discussing Ordinance No. 883 - Amending the 2019-2020 Final Biennial Budget to Update the Salary Table to Accommodate Additional Staff Needs for the Sound Transit Lynnwood Link Extension Light Rail Transit Project

Sara Lane, Administrative Services Director, delivered the staff presentation. Ms. Lane stated that the Ordinance addresses two items related to the Light Rail project: a salary table amendment for the addition of a limited term Light Rail Project Coordinator and an increase in the total FTE count by 1.25, accounting for limited term increases for the addition of the Coordinator and an additional .25 for the Administrative Assistant II to provide support through 2020.

Mayor Hall said he supports Ordinance No. 883 and noted that the City will eventually move beyond COVID-19, and the Light Rail system is needed regionally. He said the updates do not affect City funds because the associated costs will be reimbursed by Sound Transit.

It was agreed that Ordinance No. 883 would return as a Consent Item.

11. ADJOURNMENT

At 9:00 p.m., Mayor Hall declared the meeting adjourned.

Jessica Simulcik Smith, City Clerk

CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE: Authorizing the City Manager to Execute a Construction Contract with Insituform Technologies, LLC in the Amount of \$384,381 for the 2020 CIPP Stormwater Pipe Repair Project

DEPARTMENT: Public Works

PRESENTED BY: Tricia Juhnke, City Engineer

ACTION: ☐ Ordinance ☐ Resolution ☒ Motion
 ☐ Discussion ☐ Public Hearing

PROBLEM/ISSUE STATEMENT:

Staff is requesting that Council authorize the City Manager to execute a contract with Insituform Technologies, LLC, for construction of the 2020 Cured in Place Pipe (CIPP) Stormwater Pipe Repair Project in the amount of \$384,381. CIPP is a trenchless pipe repair method widely utilized for rehabilitating damaged stormwater and sanitary sewer pipes by installing a permanent composite liner within the pipe. This project will repair 3,100 feet of 12-inch diameter stormwater pipe using the CIPP method.

Between March 23 and April 23, 2020, the City solicited for contractors to construct the 2020 CIPP Stormwater Pipe Repair Project as Bid# 9495. The engineer's estimate for the construction was \$573,700. Construction is anticipated to start in June 2020 with a total contract time of 60 working days. The bid from Insituform Technologies, LLC, in the amount of \$384,381 was the low bid. City staff has determined that the bid from Insituform Technologies, LLC is responsive and that they have met the City's requirements.

RESOURCE/FINANCIAL IMPACT:

This project is fully funded by City's Surface Water Utility fund. Below is a breakdown of the budget for the 2020 CIPP Stormwater Pipe Repair Project:

Project Expenditures:

Design:		
Staff and other Direct Expenses*		\$40,000
Construction:		
Staff and other Direct Expenses	\$65,000	
Construction Contract	\$384,381	
Total Construction		\$449,381
Contingency (10%)		\$44,938
Total Project Expenditures		\$534,319

Project Revenue:

Surface Water Capital Fund	\$534,319
Total Project Revenue	\$534,319

** Design expenditures for staff and the engineering consultant are approximate*

RECOMMENDATION

Staff recommends that Council authorize the City Manager to execute a construction contract with Insituform Technologies, LLC, in the amount of \$384,381 for the 2020 CIPP Stormwater Pipe Repair Project.

Approved By: City Manager **DT** City Attorney **MK**

BACKGROUND

The 2020 CIPP Stormwater Pipe Repair Project (Project) is part of the City's ongoing multi-year Stormwater Pipe Repair and Replacement Program (SWPRRP). The SWPRRP proactively ensures public safety, reduces flooding, decreases maintenance demands, and protects critical infrastructure and other public and private property.

The stormwater pipes in the Project were identified for priority repair after completion of systematic CCTV inspection condition assessments in conjunction with basin planning efforts. Prioritization efforts include a detailed review of each pipe's inspection results and other characteristics and take into account both the structural condition of the pipe (risk of failure) and pipe criticality (potential consequences of failure).

The Project will repair 3,100 feet of 12-inch diameter stormwater pipe at 23 sites throughout the City. The majority of these sites are located within the northwestern area of the City, a result of the high number of pipes in poor condition identified in completed basin plans for those drainage areas.

DISCUSSION

The selected repair method for the Project is CIPP, which uses a durable composite pipe liner within existing stormwater pipe. Installation typically accesses pipe interiors through existing catch basins, manholes, and culvert ends. Lack of excavation and other surface disturbance means that crews can work quickly and without lengthy impacts to traffic and neighbors.

The City had good results from a similar project in 2016 (Contract# 8346) which installed nearly 3,200 feet of CIPP lining to repair stormwater pipes. This method provides optimal value by extending the lifespan of the City's existing stormwater infrastructure without the expense and high level of disturbance that comes with extensive excavation.

Project Bid Process – Bid# 9495

Between March 23 and April 23, 2020, the City solicited for contractors to construct the Project under Bid# 9495 as noted above. Bids were opened on March 23, 2020, and three bids were received. Insituform Technologies, LLC, was the low bidder with a bid of \$384,381. The other bid proposals were \$509,559 and \$530,000.

City staff determined that the bid from Insituform Technologies, LLC, is responsive and has met the requirements of the bid. This was verified by:

- Evaluation of the bid through the creation of bid tabulations, and
- Verification that the contractor is properly licensed in Washington and has not been barred from contracting on federal- and state-funded projects.

The engineer's estimate for construction of the Project was \$573,700. Construction is anticipated to start in June 2020 with a contract time of 60 working days.

COUNCIL GOAL(S) ADDRESSED

This project addresses Council Goal #2: Continue to deliver highly valued public services through management of the City's infrastructure and stewardship of the natural environment. This project will meet this goal by repairing and replacing failing stormwater pipes.

RESOURCE/FINANCIAL IMPACT

This project is fully funded by City's Surface Water Utility fund. Below is a breakdown of the budget for the 2020 CIPP Stormwater Pipe Repair Project:

Project Expenditures:

Design:

Staff and other Direct Expenses*	\$40,000
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Construction:

Staff and other Direct Expenses	\$65,000
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Construction Contract	\$384,381
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Total Construction	\$449,381
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Contingency (10%)	\$44,938
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Total Project Expenditures	\$534,319
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Project Revenue:

Surface Water Capital Fund	\$534,319
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Total Project Revenue	\$534,319
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** Design expenditures for staff and the engineering consultant are approximate*

RECOMMENDATION

Staff recommends that Council authorize the City Manager to execute a construction contract with Insituform Technologies, LLC, in the amount of \$384,381 for the 2020 CIPP Stormwater Pipe Repair Project.

CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE: Authorizing the City Manager to Execute Supplement No. 1 to Contract 8463 with H.W. Lochner for Design and Environmental Services for the SR-523 & Interstate-5 Interchange Project in the Amount of \$865,191

DEPARTMENT: Public Works

PRESENTED BY: Tricia Juhnke, City Engineer

ACTION: ☐ Ordinance ☐ Resolution ☒ Motion
 ☐ Discussion ☐ Public Hearing

PROBLEM/ISSUE STATEMENT:

Staff is requesting that the City Council authorize the City Manager to execute Supplement No. 1 to Contract 8463 with H.W. Lochner (Lochner), for design, environmental and right of way services related to the SR-523 (N/NE 145th Street) & Interstate-5 (I-5) Interchange Project. The proposed scope of work for this Supplement is attached to this staff report as Attachment A.

In 2016, the City began implementing improvements identified in the 145th Street Multimodal Corridor Study to improve access and Safety for all travel modes, and to improve access to Sound Transit's (ST) 145th Street Light Rail Station. In May 2017, the City Council authorized execution of Contract 8463 with H.W. Lochner, for providing engineering, right of way acquisition and environmental review up to 30 percent design completion.

During Lochner's initial design work in 2018, the Washington State Department of Transportation (WSDOT) requested a design evaluation of the intersections at the east and west ends of the existing overpass. As a result of the design evaluation, called an Intersection Control Evaluation (ICE), the City found that incorporating roundabouts into the design at these two locations will provide significantly greater multi-modal access and mobility than the signal-controlled intersections that were proposed in the City's 2016 corridor study, at approximately the same total cost. A comparative layout of the two concepts is attached to this staff report as Attachment B.

The additional analysis and extensive coordination with stakeholders to reach concurrence to proceed with the roundabouts has resulted in the need for this amendment to proceed with completion of the 30% design, including right of way acquisition and environmental review.

RESOURCE/FINANCIAL IMPACT:

This project is included in the adopted 2019-2024 Capital Improvement Plan. The project budget summary is as follows:

EXPENDITURES

City Staff	\$ 150,000
Direct Expenses	\$ 50,000
<i>Consultant Contracts</i>	
HW Lochner Contract (Expended)	\$ 832,839
HW Lochner Contract (Available Balance)	\$ 426,905
<i>HW Lochner Supplement 1, Including Management Reserve</i>	\$ 865,191
Final Design (Available Grant Funds)	\$ 2,000,065
WSDOT Review	\$ 175,000
Right of Way Acquisition	\$ 2,000,000
Construction	\$ 18,500,000
Total Expenditures	\$ 25,000,000

REVENUE

Roads Capital Fund	\$ 607,500
Federal STP Grant	\$ 3,982,500
Connecting Washington	\$ 2,000,000
Sound Transit Agreement (Pending)	\$ 10,000,000
Future Funding/Funding Gap ¹	\$ 8,500,000
Total Revenue	\$ 25,000,000

Under this Supplement 1 to the contract, H.W. Lochner will continue to provide the contracted services for the project. The cost to complete 30 percent design from this point forward will be \$1,292,096 (this includes the unexpended balance of the initial contract and supplement 1). The unspent balance of HW Lochner's original contract amount is \$426,905; this supplement to HW Lochner's contract would increase the contract amount by \$865,191, from \$1,259,744 to \$2,124,935. With this increase, the overall project remains within budget.

RECOMMENDATION

Staff recommends that Council authorize the City Manager to execute Supplement No. 1 to HW Lochner's professional services contract in the amount of \$865,191, for a total contract amount of \$2,124,935, for engineering design, right of way and environmental permitting services for the SR 523/N 145th Street – Interstate 5 Interchange Project.

Approved By: City Manager **DT** City Attorney **MK**

¹ Staff is seeking additional grants and anticipates full funding by Fall 2020.

BACKGROUND

In 2016, the City began implementing improvements identified in the [145th Street Multimodal Corridor Study](#) to improve access and safety for all travel modes, and to improve access to Sound Transit's (ST) 145th Street Light Rail Station. Proposed improvements for the SR 523/145th Street – Interstate 5 interchange included traffic signal optimization, a new non-motorized bridge, and a new northbound I-5 on-ramp. In May 2017, the City Council authorized execution of contract 8463 with H. W. Lochner available at [City Council authorized execution of Contract 8463 with H.W. Lochner](#), for providing engineering, right of way acquisition and environmental review up to 30 percent design completion.

During Lochner's initial design work in 2018, the Washington State Department of Transportation (WSDOT) requested a design evaluation of the intersections at the east and west ends of the existing overpass. As a result of the design evaluation, called an Intersection Control Evaluation (ICE), the City found that incorporating roundabouts into the design at these two locations will provide significantly greater multi-modal access and mobility than the signal-controlled intersections that were proposed in the City's 2016 corridor study, and at approximately the same total cost. A comparative layout of the two concepts is attached to this staff report as Attachment B.

In January 2020, the City Council discussed the 145th Street/I-5 Interchange project delivery strategy ([available at Jan. 27, 2020 Council Meeting](#)). The Council concurred with staff's recommendation to continue with completion of 30 percent design, environmental review and right of way acquisition, and to then turn the project over to WSDOT for completion of final design, permitting and construction. The City has moved forward with the project and on May 14, staff received a copy of WSDOT's letter to the US Department of Transportation stating WSDOT's intent to accept transfer of the project from the City at 30 percent design for completion of final design, environmental permitting and construction. WSDOT's letter of intent stipulates that the City must transfer a fully funded project for this to occur. A copy of WSDOT's letter is attached to this staff report as Attachment C.

Staff is moving forward with design and is continuing to pursue full construction funding. Lochner has completed 10% of the project design and is expecting to complete National Environmental Policy Act (NEPA) environmental documentation by late fall 2020. All of the 30 percent design deliverables are scheduled for completion by December 2020.

DISCUSSION

Preparation of the ICE required Lochner to develop conceptual design of the roundabouts and the re-channelized bridge deck, additional traffic modeling, concept-level construction and design cost estimates. Lochner was also needed to support the City's substantial stakeholder coordination efforts with WSDOT, Sound Transit, King County Metro and the City of Seattle that included a demonstration that transit vehicles can successfully navigate a full-scale mockup of the roundabouts.

The initial design work on the previous interchange configuration, subsequent development of the roundabout design, and coordination support consumed \$832,839

of Lochner's initial contract amount. Consequently, this contract supplement is needed to advance design to 30 percent completion and to provide right of way and environmental review services.

ALTERNATIVE ANALYSIS

The recommended alternative is to continue to progress design, environmental documentation and right of way work to 30 percent completion as planned and transfer the project to WSDOT for design completion and construction.

The second alternative is not to execute Supplement No. 1 (not recommended) which would halt the project. This would result in loss of the Federal STP grant and the requirement to return the approximately \$750,000 of grant funds that has already been paid to the City during design development.

COUNCIL GOAL(S) ADDRESSED

This project addresses Goal 2: Continue to deliver highly valued public services through management of the City's infrastructure and stewardship of the natural environment; and, Goal 3: Continue preparation for regional mass transit in Shoreline.

RESOURCE/FINANCIAL IMPACT

This project is included in the adopted 2019-2024 Capital Improvement Plan. The project budget summary is as follows:

EXPENDITURES	
City Staff	\$ 150,000
Direct Expenses	\$ 50,000
<i>Consultant Contracts</i>	
HW Lochner Contract (Expended)	\$ 832,839
HW Lochner Contract (Unexpended Balance)	\$ 426,905
<i>HW Lochner Supplement 1, Including Management Reserve</i>	\$ 865,191
Final Design (Available Grant Funds)	\$ 2,000,065
WSDOT Review	\$ 175,000
Right of Way Acquisition	\$ 2,000,000
Construction	\$ 18,500,000
Total Expenditures	\$ 25,000,000
REVENUE	
Roads Capital Fund	\$ 607,500
Federal STP Grant	\$ 3,982,500
Connecting Washington	\$ 2,000,000
Sound Transit Agreement (Pending)	\$ 10,000,000
Future Funding/Funding Gap ²	\$ 8,500,000
Total Revenue	\$ 25,000,000

² Staff is seeking additional grants and anticipates full funding by Fall 2020.

Under this Supplement 1 to the contract, H.W. Lochner will continue to provide the contracted services for the project. The cost to complete 30 percent design from this point forward will be \$1,292,096 (this includes the unexpended balance of the initial contract and supplement 1). The unspent balance of HW Lochner's original contract amount is \$426,905; this supplement to HW Lochner's contract would increase the contract amount by \$865,191, from \$1,259,744 to \$2,124,935. With this increase, the overall project remains within budget.

RECOMMENDATION

Staff recommends that Council authorize the City Manager to execute Supplement No. 1 to HW Lochner's professional services contract in the amount of \$865,191, for a total contract amount of \$2,124,935, for engineering design, right of way and environmental permitting services for the SR 523/N 145th St – Interstate 5 Interchange Project.

ATTACHMENTS

Attachment A – Scope of Work – Supplement No. 1
Attachment B – Interchange Design Layouts and Cross-Sections
Attachment C – WSDOT Letter of Intent

ATTACHMENT A

Scope of Services – Supplement 1

Concept Design Development of Roundabout
Intersection at NE 145th Street and I-5 Southbound
Ramps

City of Shoreline SR 523 & I-5 Interchange

Prepared for:

City of Shoreline, Washington



April 2020

Prepared by:

LOCHNER

915 118th Avenue SE, Suite 130
Bellevue, WA 98005

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PROJECT DESCRIPTION

The City of Shoreline completed the NE 145th Street Multimodal Corridor Study (November 2016) which outlined improvements along the entire length of NE 145th Street (SR523) as well as off-corridor improvements for bikes. The NE 145th Street and I-5 Interchange project is one of several projects identified in the plan. This project makes improvements for vehicles, bikes, and pedestrians at the I-5 interchange along NE 145th Street. The project initially proposed improvements that included the addition of a non-motorized bridge spanning I-5, immediately to the north of the existing vehicular bridge, providing an additional lane of traffic on the existing bridge, adding a new northbound on-ramp to I-5, improvements to adjacent intersections at 4th Avenue NE and 5th Avenue NE, and making non-motorized connections between the interchange area and Sound Transit's proposed light rail station north of NE 145th Street. However, the project has evolved during the design phase.

The Project's current scope includes two roundabout intersections at the intersection of NE 145th Street and 5th Avenue NE and at NE 145th Street and I-5 Southbound Ramps. The non-motorized bridge has been determined to be unnecessary and as a result has been eliminated from the project scope. The current lane configuration on the existing NE 145th Street Overpass Bridge will be reconfigured to remove the opposing left-turn lanes and add a 10'-wide bike lane on the north side of the Overpass Bridge that connects to bike lanes on 5th Avenue NE and the proposed shared use path on the north side of NE145th Street west of I-5.

SUPPLEMENT DESCRIPTION

PHASE 1 Original Scope of Services: The original contract was executed May 10, 2017, and provided for completion of an Interchange Justification Report (IJR) and preliminary engineering through the Geometric Design phase (Type, Size, and Location of Key Facilities). The original contract scheduled this work to be completed within twelve (12) months. However, a number of the original assumptions have changed over the course of this effort. Specifically, the IJR was changed to an Intersection Control Evaluation Report (ICE), the bridge structure crossing of I-5 to accommodate non-motorized use was eliminated, modifications to the I-5 northbound On-Ramp were directed, as well as other changes to the project in an effort to refine its functionality to meet an evolving purpose and need as it became shaped by adjacent projects and funding partners.

Supplement No. 1 amends the Phase I scope of services by:

- a. Providing for the additional effort necessary to identify various changes to the project's purpose and needs as well as the additional time necessary to complete the required tasks for Preliminary Engineering through Geometric Design (Type, Size, and Location of Key Features). Over these past thirty-five (35) months the H.W. Lochner, Inc. (CONSULTANT) has attended numerous project meetings at the City of Shoreline's (CITY) request and prepared conceptual roadway geometrics to identify alternative solutions including the development of roundabouts, model transit vehicle movements through the roundabouts, and other work ;
- b. Adding **six (6)** additional months of project management efforts from April 2020 to October 2020;
- c. Providing for modifications to the preferred alternative by eliminating the non-motorized use structure;
- d. Providing for modifications to channelization on the existing SR 523 Overcrossing Bridge by eliminating the opposing left turn lanes in order to accommodate the roundabout intersections; and

- e. Changing the intersections at NE 145th Street and 5th Street NE, and NE 145th Street and I-5 Southbound Ramp Terminals from signal control to roundabouts.

PHASE 2 Intersection Control Evaluation: In addition, the FHWA and WSDOT have determined as of April 2018 that an Intersection Control Evaluation Report is sufficient to summarize the analysis used to select the geometry and control of the intersections and an Interchange Justification Report (IJR) is not required for the project. Therefore, the following changes are made to Task 2 scope of services:

- a. Remaining effort for development of the IJR is deleted from the scope. This includes Policy Points 4-8;
- b. A Basis of Design (BOD) will be required. This new task is added to the scope of services (Completed, under review by WSDOT);
- c. An Intersection Control Evaluation (ICE) will be required for documentation purposes. This new task is added to the scope of services. (Completed, under review by WDOT);
- d. Additional analysis has been requested as part of the ICE development. This analysis is necessary in order to evaluate impacts to existing and planned facilities by Sound Transit, City of Seattle, and King County Metro (Completed); and
- e. Cultural and Historic Resources assessment.

PHASE 3 Intersection Design: As a result of interagency coordination with affected transit agencies, conceptual roundabout geometrics at the intersection of NE 145th Street and 5th Avenue NE will be revised to include a westbound transit queue jump and metering signal. Conceptual roundabout geometric modifications will include the following tasks:

- a. Accommodate each transit movements to address Sound Transit's request for westbound transit priority in conjunction with planned BRT improvements along NE 145th Street. (Completed)
- b. Update traffic models and corresponding traffic data in the ICE Report based upon the revised roundabout geometrics. The planning level cost estimate in the ICE Report will be updated to reflect revised roundabout geometrics. (Completed, under review by CITY)
- c. Share findings from the updated traffic analysis and the revised geometric layout of the roundabout intersection with the City of Shoreline, WSDOT, and Sound Transit. (Completed)
- d. Develop and validate two dimensional geometrics for the roundabout at NE 145th Street and I-5 Southbound Ramps based on the ICE Report for the roundabout workshop convened by the City on December 19, 2019. (Completed)

GENERAL ASSUMPTIONS

H.W. Lochner, Inc. (CONSULTANT) will provide professional services to the City of Shoreline (CITY) as outlined in the task descriptions below. The following general provisions and assumptions have been added and/or revised to the original scope of services:

- a. For budgeting purposes, the anticipated duration of the Preliminary Design and Environmental Approval phase will be extended an additional twenty-eight (28) months from June 2018 to October 2020.
- b. Original permits, approvals, agreements or other obligations will be forwarded to the CITY in hardcopy and electronic form, in formats designated by the CITY.
- c. The project will not be permitted through the City of Seattle.

DESIGN STANDARDS

Plans, specifications, and contract documents, to the extent feasible, will be developed in accordance with the following, as applicable:

- a. Washington State Department of Transportation, "Standard Specifications for Road, Bridge, and Municipal Construction", M41-10, 2020;
- b. Washington State Department of Transportation, "Design Manual", M22-01 version at time of Design Approval;
- c. Public Right of Way Accessibility Guidelines (PROWAG), current edition.
- d. Washington State Department of Transportation, "Standard Plans for Road and Bridge Construction", M21-01 latest version ;;FHWA and Washington State Department of Transportation, "Manual on Uniform Traffic Control Devices for Streets and Highways" 2009;
- e. A Policy on Geometric Design of Highways and Streets (AASHTO green book), 7th Edition, 2018;
- f. Department of Ecology (Ecology) 2012 "Stormwater Management Manual for Western Washington" (SWMMWW);
- g. 2019 WSDOT Hydraulics Manual.
- h. City of Shoreline Engineering Development Standards, 2012 or current version.
- i. City of Seattle Standards Plans and Specs.
- j. Applicable provisions of the Americans with Disabilities Act, as amended.
- k. WSDOT Bridge Design Manual (LRFD) 2019.
- l. AASHTO LRFD Bridge Specifications, 8th Edition.
- m. AASHTO Standard Specifications for Highway Bridges, 17th Edition 2002.
- n. The design elements in Tasks 4 and 5 will be developed using MicroStation and InRoads software in conjunction with WSDOT CAD standards as prescribed in the WSDOT Plans Preparation Manual M22-31.07.

TASK 1: PROJECT MANAGEMENT

1.a CONTRACT MANAGEMENT

The CONSULTANT will provide a status/progress report with invoices every four (4) weeks, to the CITY that will describe services provided by the CONSULTANT and its team members during the current reporting period. The progress reports will be prepared in a format provided and approved by the CITY's Project Manager.

Assumptions:

- a. Covers time period from April 1, 2020 to October 1, 2020 (six months) at which time the Preliminary Design Phase and CONSULTANT's scope of work will be completed.

Deliverables:

- a. Every four weeks status/progress reports, and invoice.

1.b SUBCONSULTANT MANAGEMENT

The CONSULTANT will be responsible for on-going management of the consultant team in accordance with the provisions of this Agreement.

1.c COORDINATION WITH THE CITY

The CONSULTANT will maintain regular contact and coordination with the CITY's Project Manager in accordance with the provisions of the Agreement. The CONSULTANT's Project Manager will be responsible for:

- a. Maintaining regular contact with the CITY and designated project management team staff through informal office visits, telephone conversations, e-mails, and correspondence.
- b. Maintaining open access to project information by the CITY.
- c. The CITY's Project Manager may contact team members as needed during each phase of the project with a summary of discussions sent to the CONSULTANT's Project Manager.
- d. The CONSULTANT will facilitate periodic meetings with the CITY's Project Leadership staff. It is expected that meetings of the "Project Leadership Team" (PLT) will occur on a regular basis and with a frequency that supports effective management of key transformational issues that may alter or otherwise affect the course of the project. Initially, given the projects accelerated schedule, it is expected that the PLT will meet every thirty (30) days. The PLT will include key decision makers of the CITY and the CONSULTANT that control or manage the project and its resources for delivery. Among other things, key items to be managed by the PLT include changes or modifications to the Scope of Work, Key Deliverables as defined in the Scope of Work, the Schedule that is set for the project, and established Project Budgets. Progress towards completion of the design effort will be reported to the PLT on the basis of Earned Value. Strategies for management of risk affecting the project itself and/or CONSULTANT's ability to deliver the project will be set and reviewed at the PLT meetings on an on-going basis. Emerging change will be identified to the PLT and where possible the CONSULTANT shall employ strategies that will avoid or mitigate

change to the greatest extent possible. Where change cannot be avoided, recommendations for change will be provided to the PLT for approval or redirection. Where project change is directed by the PLT, the CONSULTANT will process changes to the work plan, Scope of Work, Schedule, and/or Budget as appropriate resetting the project's base line so that continuing performance towards completion of the project can be effectively monitored.

Assumptions:

- a. Project meetings with the CITY's Project Manager are anticipated to occur bi-weekly for an additional six (6) months.
- b. Project Leadership Team meetings every 30 days or as otherwise directed by the PLT.
- c. Project and PLT Meetings will be attended by CONSULTANT staff as needed. Other CONSULTANT staff will attend when necessary to provide technical expertise. Other CONSULTANT staff may also attend via conference call if appropriate.
- d. CITY staff will provide timely and coordinated review of draft strategies and materials to streamline production and team efficiency.

Deliverables:

- a. Meeting agendas, and meeting summaries (one (1) electronic copy for six (6) additional months,
- b. Facilitated Project Meetings with the CITY's Project Manager for up to sixteen (16) meetings and up to eight (8) PLT meetings. Deliverables will include meeting agendas and one (1) electronic copy of meeting summaries.
- c. Other meeting materials will include work products that convey the current level of progress as necessary.

1.d INTERAGENCY COORDINATION

The SR 523 and I-5 Interchange project involves coordination with multiple departments of several agencies, including at a minimum, City of Shoreline, City of Seattle, King County, Washington State Department of Transportation (WSDOT), Puget Sound Regional Council (PSRC), Sound Transit (ST), Community Transit, and affected Northwest Indian Tribes. In addition, The CONSULTANT anticipates attending coordination meetings with other consultant teams concurrently developing design and construction documents for adjacent projects. The CONSULTANT will work with the CITY to facilitate stakeholder meetings to keep the parties informed about project progress, resolve project issues and obtain approvals.

Assumptions:

- a. For budgeting purposes, the following Interagency Coordination Meetings are anticipated;
 - 1. WSDOT Meetings – Sixteen (16) will be part of the bi-weekly project coordination meeting in sub-task 1c.
 - i. Bridge office
 - ii. Design office / Public Transportation
 - iii. Traffic

- iv. Other (Enviro, R/W, Permitting)
- 2. Adjacent projects Consultant Coordination Meetings – ten (10) meetings
- b. Up to ten (10) additional one-on-one meetings with WSDOT designers for continuity of roundabout design;
- c. Interagency coordination meetings will be held at the CITY or WSDOT NW Region office and facilitated by CITY staff. The CONSULTANT will organize and schedule meetings and provide meeting notes;
- d. One-on-one meeting location is anticipated to be held at the agency location
- e. At the request of the CITY, the CONSULTANT will provide materials to support each meeting; and
- f. One (1) telephone conference call per week, up to twenty-seven (27) conference calls, to support meeting preparation with other stakeholder agencies.

Deliverables:

- a. Meeting materials will include products that convey the current level of progress.

1.e PROJECT MANAGEMENT PLAN

The CONSULTANT will update the Project Management Plan that was prepared for the project on March 22, 2018

Deliverables:

- a. Project Management Plan

1.e.1 Risk Management Plan

The Risk Management Plan (RMP) previously established for the project will be updated to identify risk to the Project itself as well as the CONSULTANT's ability to deliver the work as defined in the project's Scope of Work, Schedule, and Budget. The RMP will include a summary of organizations, people, or issues that may affect the project, as well as any known risks to the project that have been identified. The Risk Management plan will assess, analyze, and develop strategy to respond to major risks affecting the project. Risk response strategies addressing selected major risks affecting the project will be presented to the PLT for approval and then implemented over the course of the project. Additional risk management efforts will be conducted as project risks evolve, or as directed by the Project Leadership Team.

Deliverables:

- a. RMP to include a facilitated review of project risks, qualitative and quantitative assessment of risks, and initial strategies for selected key risks developed.

1.e.2 Cost Risk Analysis

The project prospectus identifies the possible cost of the project to be between \$10 million and \$25 million, requiring a Cost Risk Analysis (CRA) be performed. The CRA will include a one-day workshop using a self-modeling spreadsheet template as developed by WSDOT. The CRA Workshop will be attended by subject matter cost-risk experts and the project team. The CRA Workshop will define, review, and validate cost and schedule-based estimates, document assumptions and constraints and replace the typical

traditional project “contingency” with key identifiable risks. The CRA will assess risks with respect to the engineer’s opinion of probable cost and project schedule.

Deliverables:

- a. Cost Risk Analysis Report

1.e.3 Change Management Plan

A Change Management Plan (CMP) will be developed to address changes to the scope of the planned improvements that evolve during the design phase. These changes can affect the overall scope and intent of the project. The change management plan will identify elements that monitor for emerging change. Once an emerging change is identified, the CONSULTANT will identify means that will avoid the change or the impacts of change altogether. Where change can’t be avoided, the CONSULTANT will identify efforts that will mitigate the impacts of change. Where change can’t be avoided or mitigated, the CONSULTANT will identify how change can be best accepted into the project in a manner that best supports the project while also addressing the underlying needs for the change itself. These actions, managing change to the project itself, can also affect the boundary conditions and assumptions for the project as well as the Consultant’s scope of work, schedule, and/or deliverables for the project’s design effort. These impacts will be summarized and presented to the PLT along with recommendations for further action.

The CMP identifies the means to recognize emerging change to the project impacting scope, schedule and budget. The CMP will provide a project specific process to monitor and analyze change, including risk driven change. The CMP will track change to the project using a change management log that includes response and recovery strategies.

Deliverables:

- a. Change Management Plan
- b. Summaries of changes, strategies, and recommendations provided to the PLT for direction.

1. f PROJECT CLOSEOUT

The CONSULTANT will gather project files from the CONSULTANT team, organize them, and combine them into one file. CAD files will be converted to MicroStation format to be used by WSDOT to advance the project design beyond the geometric review phase (30%) The final files will be delivered to the CITY (and WSDOT at the direction of the CITY).

Deliverables:

- a. Project deliverable files in an electronic format or formats acceptable to the CITY.
- b. Design files will be in MicroStation format for WSDOT to continue the design and AutoCAD format for the CITY archives.

TASK 2: SITE INVESTIGATIONS

2. a PROJECT DATA, SURVEY DATA, BASE MAP

Survey and Base mapping will be provided by the CITY.

Assumptions:

The CITY will provide:

- a. The CITY will coordinate with ST and WSDOT to provide updated survey base mapping in either MicroStation or AutoCAD format and one (1) hard copy (.pdf) version of the same.
- b. The CITY will coordinate with ST and WSDOT to provide Boundary Survey and Geodetic Control drawing (stamped and signed by PLS) for inclusion with final PS&E.

2.b GEOTECHNICAL ENGINEERING

2.b.1 Existing geotechnical and geologic information

The CONSULTANT will review existing geotechnical and geologic information, as follows:

- a. WSDOT historic borings for the NE 145th Street overpass
- b. Sound Transit Lynnwood Link project
- c. Regional geologic maps

2.b.2 As-built plans and supporting engineering documents

The CONSULTANT will review as-built plans and supporting engineering documents for existing structures and improvements, as follows:

- a. WSDOT NE 145th Street overpass
- b. Transit pedestrian ramps and retaining walls
- c. Utilities within project limits

2.b.3 Preliminary Geotechnical Engineering Recommendations Report

The CONSULTANT will provide the Preliminary Geotechnical Engineering Recommendations Report for:

- Permanent retaining wall types;
- Excavations, fill slopes, retaining walls for site grading; and
- Surfacing Report.

2.b.4 Pavement Design

The CONSULTANT will complete recommendations for pavement design as guided by the Chapter 620 of the Design Manual and the WSDOT Pavement Policy. The CONSULTANT will prepare draft recommendations for pavement type and a draft Pavement Report for use by the project and WSDOT concurrence.

2.b.5 Design Team Meetings

The CONSULTANT will participate in meetings and discussions with the design team.

Assumptions:

- a. No subsurface explorations will be conducted for the TS&L phase;
- b. As-built plans and supporting engineering documents for existing structures and improvements will be provided by the CITY;
- c. Exploration and laboratory test data for Sound Transit Lynnwood Link Final Design will be made available in a timely manner;
- d. No geotechnical engineering calculations will be performed for retaining walls, slopes, or embankments;

- e. Preliminary Geotechnical Engineering Recommendations report will be provided in PDF format;
- f. Pavement design will only include recommendations of pavement type.

Deliverables:

- a. Draft Preliminary Geotechnical Engineering Recommendations report.
- b. Final Preliminary Geotechnical Engineering Recommendations report after receiving comments on draft report.
- c. Draft Surfacing Report
- d. Recommendations for pavement selection and draft Pavement Report

2.c ENVIRONMENTAL SITE INVESTIGATIONS

The CONSULTANT will review available information generated during the ST study and the CITY's corridor study and follow up with ST as needed to obtain additional, relevant documentation, including jurisdictional determinations. Based on the CONSULTANT's current understanding of the area, one (1) wetland and stream was delineated within the ST station footprint east of I-5. In addition, two (2) wetlands are present on the west side of I-5 in the north- and southwest quadrants of the interchange within the WSDOT right of way, associated with ditches. The CONSULTANT understands that the ST wetland/stream area in the northeast quadrant was determined to be non-jurisdictional by the Corps and appears to have been filled as part of the ST project. Following collection and review of information, a site visit was conducted in earlier phases of this project. Additional review of the west-side ditch wetlands will be required if there are impacts to the wetlands or buffers.

Assumptions:

- a. The CONSULTANT assumes that there are no other stream or wetland critical areas within the project area requiring further assessment. No additional field work will be conducted after completion of the initial site visit.
- b. Base maps will be provided to the CONSULTANT to develop supporting environmental documents.
- c. The CITY will provide or arrange right-of-entry and access to the project area, if needed.
- d. The regulatory agencies, including the CITY, will make a determination that the west-side wetlands are non-jurisdictional and will not require further review.

Deliverables:

- a. Summary memorandum confirming and/or amending the presence and/or classification of previously and more recently identified critical areas.

TASK 3: CONCEPTUAL DESIGN, (10% P&E)

3.a CONCEPTUAL ROUNDABOUT DESIGN FOR THE ROUNDABOUT AT NE 145TH STREET AND 5TH AVENUE NE AND NE 145TH STREET AND I-5 SOUTHBOUND RAMP TERMINAL

Assumptions:

- a. Intersection improvements at NE 145th Street and 5th Avenue NE; and NE 145th Street and I-5 Southbound Ramp Terminal will be roundabouts utilizing geometrics identified in the ICE report:
- b. Intersection improvements to the I-5 Northbound ramp are not included in this scope of services and will be designed by others:
- c. Roundabout will be designed to accommodate a 40' bus and a 60' articulated bus.
- d. It is assumed that bus right-turn movements will be completed in-lane:
- e. It is assumed that bus left-turn and thru movements will be completed by splitting lanes:
- f. a transit queue jump and metering signal will be located west of 6th Avenue NE:
- g. The CITY will coordinate with ST to provide AutoCAD files for planned Bus Rapid Transit (BRT) and Lynnwood Link Extension improvements:
- h. At this time, it is assumed that existing sidewalks on the SR 523 Bridge will remain in their current configuration and the travel lanes will be restriped to accommodate the new design.

3.a.1 Develop Roundabout Geometrics (NE 145th Street and 5th Avenue NE)

The CONSULTANT will develop conceptual level design documents for two-dimensional roadway elements at the roundabout intersections for the SR 523/5th Avenue NE and SR 523/I-5 Southbound Ramp Terminals, and traffic lane and pedestrian facility reconfiguration on the SR 523/I-5 Overcrossing Bridge. Multilane roundabout geometrics will be developed to accommodate transit vehicles and add a westbound transit queue jump and metering signal.

Deliverables:

- a. Conceptual roadway plans in 11"x17" format (Five (5) hard copy sets and one (1) electronic copy in PDF format).
- b. Conceptual roundabout plans in 11x17 format (Five (5) hard copy sets and one (1) electronic copy in PDF format).

3.a.2 Roundabout Analysis (NE 145th Street and 5th Avenue NE)

The CONSULTANT will analyze roundabout geometrics. The design and figures will include the following:

- Speed curves to determine fastest paths through the roundabout layout.
- Turning movement analysis for the appropriate design vehicles.
- Natural path analysis for multilane configurations.

3.a.3 Roundabout Design Memorandum (NE 145th Street and I-5 Southbound Ramps)

The CONSULTANT will present the analyses and figures of the conceptual design in a memorandum for review by the CITY.

The memorandum will contain:

- Documentation of design assumptions used for the project.
- Revised conceptual roundabout geometrics.
- Supporting tables, figures, and appendix.

Deliverables:

- a. Roundabout Design Memorandum (Five (5) hard copies and one electronic copy in PDF format)

3.a.4 Typical Roadway Sections

The CONSULTANT will develop conceptual level typical roadway sections including dimensions of travel lanes, walkways, landscape areas and transition areas.

Deliverables:

None.

3.a.5 Pedestrian and Bicycle Connection

The CONSULTANT will develop conceptual-level pedestrian and bicycle routing providing multi-modal connectivity through the Roundabouts to existing non-motorized infrastructure and a future shared-use path on 5th Ave NE. Pedestrian routes through the Roundabouts will be designed to meet ADA requirements to the maximum extent feasible.

Deliverables:

- a. Conceptual-level pedestrian and bicycle facilities will be included on the Roadway and Roundabout Plan sheets.

3.a.6 Utility Coordination

The CONSULTANT will assist the City in efforts to manage and relocate franchised utilities within the R/W that are impacted by the project. Utility Coordination work will be completed as guided by WSDOT policies identified in the Design and Utilities Manuals. These actions generally consist of:

- a. Request utility as-built plans within WSDOT right-of-way from WSDOT.
- b. Develop a Utility Conflict Report with preliminary utility conflicts with planned improvements identified
- c. Assist the City to verify utility property and/or franchise rights
- d. Complete Subsurface Utility Engineering (SUE) efforts defined for Quality Levels C&D
- e. Working with the City, determine subsequent efforts required for SUE Quality levels A or B necessary for completion of the project's design
- f. Develop a utility relocation strategy
- g. Provide a preliminary opinion of probable cost to relocate utilities within project limits.

- h. Assist the City with exhibits and other information as necessary to meet with or otherwise notify utility owners providing an overview of the project's scope of work and its schedules towards project advertisement.
- i. Assist the City to prepare requests of utilities for relocation plans and schedules
- j. Coordinate with Seattle City Light and Communication Utility Providers that have overhead utilities in the project limit to underground their respective transmission and carrier lines;

Deliverables:

- a. Utility Conflict Report
- b. Utility Relocation Strategy.
- c. Preliminary cost estimate as necessary to relocate each utility.
- d. Assistance to the city as necessary providing information and project notification to Public Utilities and Service Providers.

3.b STRUCTURAL CONCEPTUAL DESIGN

Assumptions:

- a. Bridge structure does not require seismic retrofitting or upgrading;
- b. Bridge crash barriers do not require upgrading;
- c. Sidewalks will not be widened on the bridge;
- d. As-builts drawings of the bridge structure are available from WSDOT archives;
- e. Superstructure and substructure of the NE 145th Street/I-5 Overcrossing Bridge will not be modified as a result of this project;
- f. Illumination foundations will not require structural evaluation;
- g. Median barriers will not require structural evaluation; and
- h. Power poles will not require structural evaluation.

3.b.1 Approach Slabs

Approach slabs and header pavement joints conditions will be evaluated for consideration of replacement and/or repair. From a review of the Bridge Condition Reports, the east abutment header is in need of repair and the approach slab has failed. Joints between the roadway pavements have also failed. The CONSULTANT will develop conceptual level plans of approach slab elements.

Deliverables:

- a. Concept level plans of approach slab elements in 11"x17" plan format (five (5) printed sets of plan and one (1) electronic file in PDF format).

3.b.2 Structural Walls

The CONSULTANT will develop conceptual level designs for the retaining wall(s) anticipated to be associated with the roundabouts in order to limit the extent of fill and cut slopes.

Deliverables:

- a. Concept level plans of major design elements in 11"x17" plan format (five (5) printed sets of plan and one (1) electronic file in PDF format).

3.c DESIGN DOCUMENTATION

The design documentation will be the Project's record for design team disciplines to codify design decisions during the conceptual and preliminary design phases.

3.c.1 Design Approval

During the conceptual design phase, a Design Approval memorandum will be prepared and submitted to WSDOT for approval. The Design Approval memo will codify the design at an early stage to avoid design changes that may impact right-of-way or environmental permitting. The design approval memo will include: Project Summary, Design Criteria, Design Variances, known deviations, Channelization Plan, Alignment plans, Basis of Design, Design Parameter Worksheet, Safety Analysis, Project Design Analysis, list of known maximum extent feasible document (MEFs), and current Engineer's opinion of probable cost.

Deliverables:

- a. Design Approval memorandum

3.c.2 Basis of Design

Sections 1, 2, 3, 4, and 5 of WSDOT's BOD form have been filled out as part of the Intersection Control Evaluation report for NE 145th Street (SR 523) and I-5 Southbound On/Off ramps and NE 145th Street (SR 523) and NE 5th Avenue. As part of the Conceptual Design phase the BOD will be reviewed by the CONSULTANT and WSDOT Design Team and revised as necessary. The BOD will be prepared for the CITY to submit to WSDOT Region and FHWA for approval.

Deliverables:

- a. Basis of Design form with updated project data

3.c.3 Clear Zone Inventory

The design clear zone is in an urbanized setting. The interchange at I-5 and NE 145th street has limited access measured from 300 feet from the center of each roundabout. This places the entirety of the project within WSDOT's limited access. The operating speed of the new facility will be posted at 35 MPH. The clear zone will be inventoried for fixed objects that do not conform to WSDOT clear zone design criteria.

Deliverables:

- a. Clear zone inventory

3.c.4 Context and Modal Accommodation Report (CMAR)

The CONSULTANT will review the CMAR to insure the modal priority of the segment of NE 145th Street that passes through the limited access control area of I-5 is included in Sections 4 and 5 of the BOD. The BOD will be updated based upon the review of the CMAR.

Deliverables:

- None.

3.c.5 Project Baseline and Contextual Needs Statement

A project needs statement will be prepared by the CONSULTANT to be used in WSDOT programming documents. This statement will provide the primary reason for the project. The needs statement will consider the different travel mode use by the project. The

contextual needs are opportunities for the project to address needs that maybe identified through community engagement or increased project understanding.

Deliverables:

- a. Project Needs Statement

3.c.6 Environmental Review Summary (ERS)

The ERS I part of the project summary document. The ERS identifies environmental permits and approvals. The ERS will be prepared by the CONSULTANT and be submitted as part of the Design Approval package.

Deliverables:

- a. Completed Environmental Review Summary form

3.d CONCEPTUAL LEVEL ENGINEER'S OPINION OF PROBABLE COST (EOPC) AND CONSTRUCTION RISK ASSESSMENT

3.d.1 Basis of Estimate

The Basis of Estimate describes the project, underlying assumptions, and exclusions. The document includes project information of scope and schedule from which the project estimate can be prepared. The Basis of Estimate also documents history of the estimate process and is companion to the EOPC.

Deliverables:

- a. Basis of Estimate document

3.d.2 Conceptual Level Engineer's Opinion of Probable Cost

The CONSULTANT will develop a planning level cost estimate to support these concepts.

Deliverables:

- a. Conceptual level cost estimate (five (5) printed sets of plan and one (1) electronic file in PDF format)

3.d.3 Cost Risk Assessment

The CONSULTANT will prepare a Qualitative Cost Risk Assessment (QCRA) using the WSDOT Qualitative Risk Assessment spreadsheet to identify, assess and evaluate risk that might impact project cost and/or schedule for project delivery.

Deliverables:

- a. Conceptual QCRA worksheet (five (5) printed sets of plan and one (1) electronic file in PDF format)

3.e DESIGN VISUALIZATION

The CONSULTANT will prepare a computer animation of the project at the conceptual design level for use at public meetings, project graphics on the CITY's web page.

Deliverables:

- a. Computer Animation of Concept Level Design
- b. Computer Rendering of Concept Level Design

3.f QA/QC OF CONCEPTUAL DESIGN DELIVERABLES

The CONSULTANT will conduct an in-house quality review of Task 4 deliverables before they are submitted to the CITY in accordance with the Project Quality Control Plan.

Deliverables:

- a. Project Quality Control Plan

TASK 4: PRELIMINARY DESIGN, (Geometric Design or Type, Size, Location of all Key Facilities – 30% Milestone)

The CONSULTANT will prepare preliminary design engineering of the public roadways and utilities for the interchange access modification improvements and access connections to the SR 523/I-5 interchange to support the environmental documentation. This preliminary design will be an advancement of the conceptual design developed under Task 4.

The preliminary design will include modifications to the existing SR 523 channelization to remove the left turn pockets and replace signalized intersections at SR 523/5th Avenue NE and SR 523/I-5 Southbound Ramp Terminals with two-lane roundabouts. The CONSULTANT will conduct quality control review by senior staff members with appropriate experience and expertise. The following elements are included:

4.a DESIGN DOCUMENTATION

The CONSULTANT will develop a Design Criteria Memorandum documenting the design standards to be used for the project; as well as documentation of design decisions made as the team moves through the design process. This documentation process will be completed in coordination with the technical team.

Assumptions:

- a. Design criteria will be documented in WSDOTs Project Design Parameters Worksheet.
- b. The Quantitative Analysis Method with emphasis of safety and capacity will be applied.
- c. All electric copies will be in PDF format.

Deliverables:

- a. Design Criteria Memorandum – five (5) hard copies and one (1) electronic copy.
- b. Design Parameters Worksheet – one (1) hard copy and one (1) electronic copy.

4.b ENVIRONMENTAL PERMIT ASSESSMENT

The CONSULTANT will update the local permit strategy memo (dated March 22, 2018) following project re-initiation and coordination/consultation with the CITY.

Deliverables:

- a. Permit Compliance Memo (One (1) hard copy and one (1) electronic copy)

4.c ROADWAY DESIGN

The CONSULTANT will advance the conceptual design developed in Task 4. Advancement of the alternative will include further development of the geometric design, earthwork quantities, channelization design, and safety improvements for the project. It will include development and

refinement of the roadway plans. Roadway plans are anticipated to include roadway plan and profile, roundabout geometrics and grading, sections, paving plans, and signing plans.

Assumptions:

- a. No change in the vertical profile of SR 523 or intersecting roadways is anticipated.
- b. Roadway design will be in accordance with the WSDOT Design Manual, the WSDOT Standard Plans, and City of Shoreline Engineering Standards.
- c. Contract Specifications will not be prepared for 30% submittal.
- d. All electronic copies will be in PDF format.

Deliverables:

- a. Preliminary Roadway plans in 11"x17" format – one (1) hard copy and one (1) electronic copy.
- b. CAD drawings of preliminary design elements in MicroStation format.

4.c.1 Roundabout Geometrics

The CONSULTANT will develop preliminary designs for three-dimensional roadway elements at the roundabout intersections of SR 523/5th Avenue NE and SR 523/I-5 Southbound Ramp Terminals, including traffic lane reconfiguration on the SR 523/I-5 overcrossing bridge.

Deliverables:

- a. Preliminary roundabout plans in 11x17 format – five (5) hard copies and one (1) electronic copy.
- b. CAD drawings of preliminary design elements in MicroStation format (to be included in the deliverable for Task 4i Preliminary Plans).

4.c.2 Roundabout Grading

Roundabouts will be designed to be micro-graded to provide smooth surface transition from negative super-elevation (cross slope) of the circulating roadway to entry and exit legs of the intersection. Design of grading will be completed to provide positive drainage for the roundabouts.

Deliverables:

- a. Preliminary Roundabout Grading Plan in 11"x17" format – five (5) hard copies and one (1) electronic copy.
- b. CAD drawings of concept level design elements in MicroStation format (to be included in the deliverable for Task 4i Preliminary Plans).

4.c.3 Roundabout Peer Review

The COUNSULTANT will prepare design documentation to the roundabouts for WSDOT peer review of the two dimensional roundabout layout prior to finalization of the channelization plan.

Deliverables:

- a. Two-dimensional plan layout of roundabout geometrics and pavement markings plan in 11"x17" format – one (1) hard copy and one (1) electronic copy.

- b. Roundabout design documentation of design vehicle turning movements and swept, fastest and natural path diagrams.

4.c.4 Roadway Horizontal and Vertical Alignments

Horizontal and vertical control alignments will be establish to act as the primary control to identify location of project elements. The alignment will also establish the horizontal and vertical geometry of the roadway and roundabout design.

Deliverables:

- a. Horizontal alignments on roadway plans and vertical alignments on roadway plans and profile sheets.

4.c.5 Roadway Super-elevation

The CONSULTANT will prepare a roadway grade transition diagram for each roadway alignment with horizontal curve.

Deliverables:

- a. Super-elevation diagram on roadway plan and profile sheets.

4.c.6 Earthwork

The CONSULTANT will prepare earthwork grading plans showing cut and fill slopes to construct the roadway, multi-modal improvements, and roundabouts. Quantities of earthwork to construct cut and fill slopes will be calculated for neat-line cuts and in-place fill quantities.

Deliverables:

- a. Cut and fill line on roadway plan and cut neat-line and fill in-place quantities.

4.c.7 Guardrail and Crash Barrier

The primary roadway plan will show the preliminary type, size and location of guardrail and/or crash barriers. Location of barriers will be based on WSDOT Design Manual Guidance. A Barrier Design Memorandum will not be prepared.

Deliverables:

- a. Type, size and location of guardrail and/or crash barriers will be shown on roadway plans and quantities will be documented in the Engineer's Opinion of Probable Cost.

4.c.8 Signage and Pavement Markings

Type, size and location of statutory and guide signage, and pavement markings required for the roundabouts and roadway improvements will be documented on the Signage and Pavement Marking Plan.

Deliverables:

- a. Preliminary Signage and Pavement Marking Plan in 11x17 format – one (1) hard copy and one (1) electronic copy.
- b. CAD drawings of concept level design elements in MicroStation format (to be included in the deliverable for Task 4i Preliminary Plans).

4.c.9 Illumination and BRT Queue Jump Signal

Illumination as-built information will be collected. Illumination light level analysis for traffic and pedestrian light will be completed. Type, size and location of illumination for traffic and pedestrians plan will be prepared.

The ONSULTANT will also prepare plan for type size and location of underground conduit and junction boxes for future BRT queue jump signal on east bound NE 145th Street for Sound Transit bus priority over east bound general purpose traffic. Location of underground conduit and junction boxes will be forward compatible for the future signal system to be designed and construction by others.

Deliverables:

- a. Preliminary illumination plan in 11"x17" format – one (1) hard copy and one (1) electronic copy.
- b. Preliminary plan of conduit and junction box layout for future queue jump signal.
- c. CAD drawings of concept level design elements in MicroStation format (to be included in the deliverable for Task 4i Preliminary Plans).

4.c.10 Safety Analysis

A project related Safety Analysis Report (SAR) will be prepared using the safety data prepared for the ICE Report and BOD. The SAR will be standalone report.

Deliverables:

- a. Safety Analysis Report – one (1) hard copy and one (1) electronic copy.

4.c.11 Work Zone Traffic Control

The CONSULTANT will develop a preliminary traffic management control plan for a temporary traffic control scheme to maintain traffic through project limits during construction.

Deliverables:

- a. Preliminary Traffic Management Plan.

4.d CHANNELIZATION PLANS

The CONSULTANT will prepare a Channelization plan for the interstate access improvements at SR 523 and I-5 interchange project using WSDOT design and plan procedures. These improvements are anticipated to include:

- a. Re-channelization of SR 523 between 3rd Ave NE and 5th Ave NE.
- b. Roundabout intersections at the I-5 Southbound ramp terminals and 5th Avenue NE.

Assumptions:

- a. Roadway design will be in accordance with the WSDOT Design Manual, the WSDOT Standard Plans, and City of Shoreline Engineering Development Standards.
- b. Plans preparation will be in accordance with WSDOT Plans Preparation Manual.
- c. One deviation or design exception is anticipated for fire access to 4th Avenue NE from the proposed roundabout.
- d. The Channelization plans will follow the WSDOT NW Region Channelization Plan Checklist.

- e. No more than three (3) rounds of WSDOT review are anticipated.
- f. All electronic copies will be in PDF format.

Deliverables:

- a. First Draft Channelization Plan submittal – five (5) hard copies and one (1) electronic copy.
- b. Response to first draft comments – one (1) hard copy and one (1) electronic copy).
- c. Second Draft Channelization Plan submittal – five (5) hard copies and one (1) electronic copy.
- d. Response to second draft comments – one (1) hard copy and one (1) electronic copy.
- e. Final Channelization Plan submittal – one (1) hard copy on Mylar and one (1) electronic copy.
- f. CAD drawings of concept level design elements in MicroStation format (to be included in the deliverable for Task 4i Preliminary Plans)

4.e RETAINING WALL

The CONSULTANT will prepare preliminary retaining wall plans to support roadway embankment at the roundabout intersections:

- Wall type selection
- Preliminary design and detailing

Assumptions:

- a. On-going coordination with urban designer, roadway designer, geotechnical engineer, and environmental permitting staff.
- b. Wall size and locations will be determined by on-ramp geometry, right-of-way, and gateway elements.
- c. All electronic copies will be in PDF format.

Deliverables:

- a. Preliminary Retaining Wall plans – five (5) hard copies and one (1) electronic copy.
- b. CAD drawings of concept level design elements in MicroStation format (to be included in the deliverable for Task 4i Preliminary Plans).

4.f TRAFFIC LANE MODIFICATION ON EXISTING BRIDGE DECK

The CONSULTANT will prepare preliminary plans including cross sections and details associated with removing the left turn lane, adding c-curb and restriping for bicycle lanes.

Deliverables:

- a. Lane striping and cross-section.
- b. CAD drawings of concept level design elements in MicroStation format (to be included in the deliverable for Task 4i Preliminary Plans).

4.g REPLACE BRIDGE APPROACH SLABS

Design will be provided for replacement of the east approach slab and header pavement joints repair. The Bridge Condition Reports identified the east abutment header to be in need of repair

and pointed out the east approach slab has sunk. Joints between the roadway pavements have also failed.

Deliverables:

- a. Bridge approach slab replacement plan included in the roadway plans.

4.h STORMWATER DESIGN

The CONSULTANT will prepare stormwater drainage plans for the SR 523 and I-5 Interchange modifications. The Stormwater Plans will include conveyance, water quality and preliminary flow control and water quality facility sizing. The 30% design submittal will include sufficient plan information to demonstrate the proposed stormwater facilities while not including details and final design information such as invert elevations. The preliminary drainage analysis and design will be developed to support the environmental documentation and will comply with the WSDOT Highway Runoff Manual requirements. Stormwater downstream runoff routes will be analyzed for capacity.

Assumptions:

- a. The existing stormwater water system on the bridge crossing I-5 will not be modified.
- b. All electronic copies will be in PDF format.

Deliverables:

- a. Stormwater Plans – five (5) hard copies and one (1) electronic copy.
- b. CAD drawings of concept level design elements in MicroStation format (to be included in the deliverable for Task 4i Preliminary Plans).
- c. Draft Drainage Analysis – one (1) hard copy and one (1) electronic copy.

4.i UTILITY RELOCATION

The CONSULTANT will assist the City in efforts to manage and relocate franchised utilities within the R/W that are impacted by the project. Utility Coordination work will be completed as guided by WSDOT policies identified in the Design and Utilities Manuals. These actions generally consist of:

- a. Request utility as-built plans within WSDOT right-of-way from WSDOT.
- b. Develop a Utility Conflict Report with preliminary utility conflicts with planned improvements identified
- c. Assist the City to verify utility property and/or franchise rights
- d. Complete Subsurface Utility Engineering (SUE) efforts defined for Quality Levels C&D
- e. Working with the City, determine subsequent efforts required for SUE Quality levels A or B necessary for completion of the project's design
- f. Develop a utility relocation strategy
- g. Provide a preliminary opinion of probable cost to relocate utilities found within the project limits.
- h. Assist the City with exhibits and other information as necessary to meet with or otherwise notify utility owners providing an overview of the project's scope of work and its schedules towards project advertisement.
- i. Assist the City to prepare requests of utilities for relocation plans and schedules

- j. Coordinate with Seattle City Light and Communication Utility Providers that have overhead utilities in the project limit to underground their respective transmission and carrier lines;

Deliverables:

None.

4.j PRELIMINARY PLANS

The CONSULTANT will compile the plans prepared for the various designs noted above into a Geometric Review (30%) plan set. This plans set will be used to conduct the 30% Design Review by the CITY, WSDOT and other stakeholders. The 30% plans will include the following plans: Typical Roadway Sections, Roadway Profiles, Stormwater Plans, Paving Plans, Bridge Modifications, Retaining Wall Plan and Elevations, and Signing Plans.

Assumptions:

- a. Plan sheets scale is anticipated to be 1:40 on an 11"x17" sheet size and 1:20 for a 22"x34" sheet size. Detail sheets will be added for clarity as required.
- b. All electronic copies will be in PDF format.

Deliverables:

- a. 30% plans package (11x17) – one (1) hard copy and one (1) electronic copy.
- b. CAD drawings of preliminary level design elements in MicroStation format.

4.k PRELIMINARY COST ESTIMATE

The CONSULTANT will calculate quantities and prepare a summary of quantities and estimate of probable construction costs using historical costs from WSDOT unit bid analysis.

Assumptions:

- a. The Preliminary Cost estimate will utilize the WSDOT Standard Item table.
- b. Unit Prices for standard items will be determined using WSDOT Unit Bid Analysis.
- c. All electronic copies will be in PDF format.

Deliverables:

- a. Preliminary Cost Estimate – five (5) hard copies and one (1) electronic copy.

4.l DESIGN DOCUMENTATION PACKAGE (DDP)

The Design Documentation Package (DDP) will be prepared at the end of the preliminary engineering phase of the project. The DDP will be a compilation of project documents that contain design decisions, justifications and approvals. The DDP will be turned over to WSDOT for document retention.

4.m QA/QC OF PRELIMINARY DESIGN

The CONSULTANT will conduct an in-house quality review of Task 4 deliverables before they are submitted to the CITY in accordance with the Project Quality Control Plan.

Deliverables:

- a. Project Quality Control Plan.

TASK 5: GATEWAY

5.a SITE INVENTORY, ANALYSIS AND COORDINATION

The CONSULTANT will prepare a base map for the preliminary design phase, review preliminary engineering plans and existing conditions data as necessary, and complete up to two site visits to confirm aesthetic design and pedestrian and bicycle circulation coordination with adjacent neighborhoods, 5th Ave NE streetscape, adjacent wetland, proposed Sound Transit station, and NE 145th Street Multi-modal Corridor Study. The CONSULTANT will participate in the following meetings:

COORDINATION

- a. Kick-off meeting (hosted online or conference call)
- b. Site visit
- c. Data review, reports, meeting materials and notes, existing conditions
- d. Code and design standard analysis
- e. Prepare base map
- f. Prepare site vicinity map

5.c CONCEPTUAL DESIGN – ALTERNATIVES

The CONSULTANT will develop two landscape concepts for the two roundabout intersections located at NE 145th Street and NE 5th Avenue and NE 145th Street and I-5 southbound ramp terminals. Concept one will consist of landscape and hardscape elements for gateway entry into the city of Shoreline. Concept two will be consistent with typical WSDOT landscaping of roundabouts located at interstate ramp terminals.

- a. Develop (2) Design Alternatives (4 plans - 2 alternatives per roundabout)
- b. Alternative Sections (4 sections - 2 alternatives per roundabout)
- c. Alternative Review meeting with City (one meeting)
- d. Draft Preferred Concept Plans (2 plans - 1 per roundabout)
- e. Draft Preferred Concept Sections (2 sections - 1 per roundabout)
- f. Draft Preferred Concept Sketch (2 - 1 per roundabout)
- g. City Review Meetings (one meeting)
- h. Final Concept Plan (2 plans - 1 per roundabout)
- i. Final Concept Sketch (2 sketches - 1 per roundabout)
- j. Final Concept Sections (2 sections - 1 per roundabout)
- k. Color Renderings for Public Meeting (2 Site Plans and 2 Sections - 1 for each roundabout)
- l. Tech Memo (up to 3 pages)
- m. Cost Estimate
- n. Web Meetings (up to 2)

Deliverables:

- a. Draft Preferred Concept Plans (2 plans - 1 per roundabout)

- b. Draft Preferred Concept Sections (2 sections - 1 per roundabout)
- c. Draft Preferred Concept Sketch (2 - 1 per roundabout)
- d. Final Concept Plan (2 plans - 1 per roundabout)
- e. Final Concept Sketch (2 sketches - 1 per roundabout)
- f. Final Concept Sections (2 sections - 1 per roundabout)
- g. Preferred Alternative Design memorandum
- h. Color Renderings for Public Meeting

5.b PRELIMINARY DESIGN

This task includes the preliminary and gateway pedestrian hardscape and landscape areas to advance the design of the preferred landscape concept from Task 5a.

The design will be refined, including identification of products and materials, decorative paving, , landscape area conceptual landforms, and landscape planting character. The design concepts will be detailed adequately to allow for coordination with the CITY and design team and to incorporate aesthetic design details of the roundabout landscaping into the project engineering design. The CONSULTANT will prepare preliminary aesthetic and landscape architectural design plans (approximately 30 percent complete) for the roundabouts and splitter islands areas.

The following drawings will be provided:

- a. Landscape Layout and Grading Concept Plan (3 sheets at 1"=20' scale)
- b. Sections (up to 4)
- c. Elevations (up to 4)

Deliverables:

- a. 30% landscape architectural design plans (as per list above)
- b. Design memorandum including product and materials information).
- c. Preliminary construction cost estimate

TASK 6: ENVIRONMENTAL PERMITTING

6.a PRE-APPLICATION CONSULTATION

We will meet with the City planning department to discuss the anticipated local permit process. In addition, we will meet with the City's project manager and coordinate with WSDOT to discuss the NEPA support documents.

6.b PERMITS, APPROVALS AND RIGHT OF WAY (ROW)

The City will provide information to the CONSULTANT regarding the status of ROW negotiations or acquisitions.

6.c NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DOCUMENTED CATEGORICAL EXCLUSION (DCE) THROUGH FHWA

The CONSULTANT will complete the following sections of the DCE form, as described below, for the proposed project:

6.c.1 NEPA Support

The CONSULTANT will develop project data to support the NEPA permitting process. The CONSULTANT will also coordinate with environmental permitting staff and agencies in preparation of the NEPA documentation to support a Documented Categorical Exclusion.

6.c.2 Project Description

The CITY, in coordination with the CONSULTANT will develop an official project description to be used for the environmental permitting

6.c.3 Critical and Sensitive Areas

The CONSULTANT will complete this section based on existing information from previous studies, our site visit and information from the CITY.

6.c.4 Cultural Resources/Historic Structures

The CONSULTANT will complete this section using information and analysis provided by the cultural resources subconsultant.

6.c.5 Hazardous and Problem Waste

Hazardous and Problem Waste: The CONSULTANT will complete this section using information and analysis completed by others for the 145th Street Multimodal Corridor Project and Sound Transit's light rail station

6.c.6 Noise:

The CONSULTANT will prepare a noise analysis to support CONSULTANT'S completion of this section.

6.c.7 4(f)/6(f) Resources

The CONSULTANT will complete this section under the assumption that the City of Seattle will have resolved any 4(f)/6(f) resource issues at its Jackson Park Golf Course prior to or concurrent with submittal of the DCE. The City of Shoreline will provide CONSULTANT with relevant information. The CONSULTANT assumes that there are no other 4(f)/6(f) resources located within the project corridor.

6.c.8 Agricultural Lands

The CONSULTANT will complete this section.

6.c.8 Rivers, Streams or Tidal Water

The CONSULTANT will complete this section based on existing information from previous studies and information from the CITY.

6.c.9 Tribal Lands

The CONSULTANT will complete this section.

6.c.10 Water Quality/Stormwater

The CONSULTANT will complete this section.

6.c.11 Previous Environmental Commitments

The CONSULTANT will complete this section with input from the CITY, ST, City of Seattle and King County.

6.c.12 Environmental Justice

The CONSULTANT will complete this section, understanding that the partial or full acquisition of property(ies) at the northwest corner of the project intersection has been adequately addressed by City as part of its 145th Street Multimodal Corridor Project. CONSULTANT assumes that the project area outside the boundaries of the 145th Street Multimodal Corridor Project may contain other minority or low-income populations, but will not have short- or long-term “disproportionate, high and adverse” effects on them. A brief report will be prepared that summarizes the required analysis for the project area east of the 145th Street Multimodal Corridor Project, including documentation of readily available demographic information, a description of the effects and the decision-making process and rationale that generated the effects, a summary of communications with the affected party(ies), and a more general summary of the public outreach efforts and results, using information provided by the City and CONSULTANT.

6.c.13 Biological Assessments (BAs) and Essential Fish Habitat Evaluations

The CONSULTANT will complete this section, which will include a supporting BA. A Hi-Run analysis is not included in the BA.

Assumptions:

- a. CONSULTANT will participate in a project re-initiation meeting.
- b. The project does not require an Interchange Justification Report.
- c. It is assumed an Environmental Impact Statement (EIS) or Environmental Assessment (EA) is not required and the project will be processed using a DCE through WSDOT.
- d. ROW purchases will be offered after the NEPA DCE has been signed by WSDOT and Federal Highway Administration; thus, Appendix F will not be necessary
- e. No additional studies or supporting information other than those identified above will be required to complete the DCE
- f. Documents will be revised one time based on CONSULTANT review, one time based on City review, and one time based on WSDOT review
- g. The Affect Determination in the BA will be either ‘no effect’ or ‘not likely to adversely affect’. A Hi-Run analysis will not be required by WSDOT.
- h. An environmental justice discipline report or any additional supporting analysis to support an EA will not be required. The prior study completed as part of the 145th Street Multimodal Corridor Project will be adequate to address the project area immediately west of the southbound off ramp. A brief environmental justice evaluation addressing the project area east of the southbound off ramp will be sufficient.
- i. The City and/or CONSULTANT team will provide S&W with an official description of the project including a figure showing property boundaries within the project corridor.
- j. The City and/or CONSULTANT team will provide available relevant information to S&W concerning site conditions, including previous environmental, geotechnical, and wetland reports.
- k. Prior studies completed for the 145th Street Multimodal Corridor Project and Sound Transit’s light rail station will provide all of the information necessary to respond to the Hazardous Materials element of the DCE. No supplemental data collection or field review will be conducted or needed to complete the DCE.
- l. Documents will be revised one time based on CONSULTANT and City review.
- m. No meetings have been included.

Deliverables:

- a. Completed WSDOT DCE form, including draft and final
- b. Environmental Justice evaluation, including draft and final
- c. Noise Analysis, including draft and final
- d. Biological Assessment meeting WSDOT standards, including draft and final

6.d CULTURAL AND HISTORIC RESOURCES

This service will include the preparation of the Section 106 report in accordance with the State Historic Preservation Office standards and guidelines. The service will include the following:

- a. Pertinent literature on the archaeology, ethnography, and history of the project area will be reviewed to determine the existence of historic properties in the project Area of Potential Effect.
- b. CONSULTANT will maintain contact with the local tribes through WSDOT to acquire technical information relating to the cultural resource background of the project area.
- c. A systematic field reconnaissance will be conducted to identify previously recorded and/or unrecorded archaeological sites for the proposed project where ground-disturbing activities are expected to take place. Field reconnaissance will consist of pedestrian transects at varying intervals, depending on terrain throughout the proposed project area. Shovel probes (digging a hole with a shovel) will be excavated, as deep as feasible, and in areas expected to have a high probability for cultural resources. Shovel probes will be screened through ¼ inch mesh hardware cloth. Shovel test locations will be backfilled upon commencement of testing.
- d. Every effort will be made to include Tribal cultural resources personnel in assisting the field effort. Rights-of-entry will be coordinated by the CITY.

Deliverables:

- a. Section 106 report, draft and final.

6.e STATE ENVIRONMENTAL POLICY ACT (SEPA) CHECKLIST

The CONSULTANT will prepare a SEPA checklist for the proposed project. We anticipate that this project will require supporting documents for geotechnical issues, stormwater, traffic, cultural/historical resources, and wetland jurisdiction determination. If a public hearing is required by the CITY, the CONSULTANT will attend.

Assumptions:

- a. It is assumed an Environmental Impact Statement (EIS) is not required and the City will issue a Determination of Non-significance or Mitigated Determination of Non-Significance.
- b. It is assumed that the City of Seattle will agree with the City's decision to be SEPA lead agency.
- c. Documents will be revised one time based on CONSULTANT review, and one time based on City review
- d. Fees for City permit applications and environmental reviews are not included

- e. Other than attendance at a public hearing (if held), no other public outreach would be conducted or attended by the CONSULTANT.

Deliverables:

- a. SEPA checklist, draft and final.

6.f PHASE 1 ENVIRONMENTAL SITE ASSESSMENT (ESA)

The CONSULTANT will complete a Phase I ESA for King County parcel # 2881700371 located at 164th NE 145th Street in the City of Shoreline following the Phase I ESA scope as outlined above.

Assumptions:

- a. The CITY will provide 50-year Chain of Title Report with an ownership cover sheet for the title insurance company to S&W.
- b. Phase I ESA scope of services does not include provisions to collect and test soil and/or water samples, or other media including but not limited to fluorescent light ballasts, urea formaldehyde insulation, and lead-based paint or asbestos, or to test radon gas levels.
- c. The CITY or the CONSULTANT will provide S&W with an official description of the project including a figure showing the property boundary of the subject property.
- d. The CITY will provide right-of-entry and access to the subject property and for buildings on the subject property.
- e. Interviews may be conducted by telephone and will be arranged by the City.
- f. Two Phase I ESAs will be conducted for the project, the first one will be conducted for the overall project area to support the preparation of the DCE and the second is property specific for the acquisition of King County parcel # 2881700371.
- g. The CITY and/or CONSULTANT team will provide S&W with available relevant information concerning site conditions, including previous environmental, geotechnical, and wetland reports.
- h. A single report review cycle will be required.
- i. Documents will be revised one time based on CONSULTANT and CITY review.
- j. No meetings have been included.

Deliverables:

- a. Prepared Report including draft and final.

TASK 7: COMMUNICATIONS AND OUTREACH

CONSULTANT will maintain and update a Public Involvement Plan and strategy in accordance with CITY OF SHORELINE's public communications requirements. CONSULTANT will provide outreach to inform and engage those along the corridor and surrounding neighborhoods.

7.a IOPE Public Involvement Plan

In coordination with CITY OF SHORELINE's IOPE requirements and building on prior outreach activities and plans for the SR-523 (N/NE 145th Street) & I-5 Interchange Project, CONSULTANT will maintain and update the existing Public Involvement Plan (PIP) focused on communications and outreach that identifies approaches for effectively informing and involving all audiences, outreach tools and methods, and response strategies for potential project

scenarios.

CONSULTANT will maintain and update a PIP that:

- a. Outlines all proposed communications tasks, roles and responsibilities of CONSULTANT.
- b. Includes a detailed list of stakeholders, noting key target groups, interests and concerns; pertinent blogs/media; and affected businesses, residents, apartment and condominium associations and community groups. Stakeholder list will be updated as needed.
- c. Outlines process for development, review, and quarterly update of key messages for both internal and external communications

Assumptions

- a. An initial draft communications plan has been developed by CITY OF SHORELINE or another consultant. A work plan to guide CONSULTANT activities will be developed after the plan has been approved.
- b. CONSULTANT will have up to 2 planning meetings with CITY OF SHORELINE to review the plan and discuss implementation.
- c. CONSULTANT will develop and manage a project workplan that provides a schedule and outline for implementation of the PIP.
- d. CITY OF SHORELINE will provide to CONSULTANT activity logs, stakeholder lists, a summary of community commitments and other pertinent outreach documents upon Notice to Proceed.
- e. CITY OF SHORELINE will provide to CONSULTANT all pertinent documentation, as well as access to any project databases, emails and/or phone lines upon Notice to Proceed.

Deliverables

- a. PIP utilizing IOPE Guide (up to 1 updates)
- b. Key messages document (up to 2 updates)

7.b Project Meetings and Team Coordination

a. Communications Team Kickoff Meeting

CONSULTANT will plan, facilitate and report on a 1-hour communications kickoff meeting. The meeting will review communications to date and address the project's measures of success, roles, responsibilities and operating guidelines. The meeting will support efforts to ensure effective communications and decision-making during project execution. Up to 2 consultant staff will attend.

This meeting will occur within 12 days after NTP. CONSULTANT will prepare meeting agenda and summary.

b. CITY OF SHORELINE Communications Team Meetings

CONSULTANT will plan, facilitate and report on up to 6 CITY OF SHORELINE team meetings. These meetings will occur at CITY OF SHORELINE offices. Up to 2 CONSULTANT team members will attend each meeting, depending on the agenda. CONSULTANT will prepare meeting agendas, summaries and action items.

c. Consultant Team Meetings

CONSULTANT will plan and facilitate up to 8 internal consultant team meetings to coordinate work. These meetings will be 30 minutes and will occur at CONSULTANT offices with up to 3 consultant staff at each meeting.

d. Design Team Meetings and Integration

CONSULTANT will integrate and attend all necessary internal technical team meetings to include:

- I. *Regular Planning and Design Team meetings:* Participate in team meetings (in person) to stay informed of planning progress and milestones, and report back on community input.
- II. *Agency Coordination meetings:* Plan, facilitate, and summarize up to 4 agency coordination meetings around outreach, materials, and messaging (agency coordination may be with WSDOT, Sound Transit, King County Metro and/or City of Seattle)

e. General Management and Administration

CONSULTANT will have ongoing communication with the technical planning and design team, as well as the CITY OF SHORELINE project team. CONSULTANT will ensure streamlined and effective management of the various work elements.

Assumptions

- a. 6 months of CONSULTANT team meetings and Design Team meetings
- b. 6 CITY OF SHORELINE Communications team meetings

Deliverables

- a. Monthly invoicing and reporting (up to 6)
- b. Communications Team Kickoff Meeting agenda, materials and summary
- c. CITY OF SHORELINE Team Meeting agendas and meeting summaries (up to 6)
- d. Up to 4 agency coordination meetings, agendas and summaries (1 staff)

7.c Public Outreach Events, Activities, Briefings and Fieldwork

CONSULTANT, in coordination with CITY OF SHORELINE and other consultant team(s), will implement a CITY OF SHORELINE- approved public involvement plan. Activities undertaken by the CONSULTANT team to inform and involve the public will be in accordance with IOPE guidelines.

Elements include:

- a. *Open house:* Plan, promote, staff and report on one open house for the public to learn about design concepts and provide input. CONSULTANT will work with CITY OF SHORELINE to promote the event.
- b. *Community survey:* Develop, conduct and compile results of one survey to solicit ideas and input on design. These surveys will be made available in print

- and online.
- c. *Briefings and community presentations*: CONSULTANT will schedule, prep, staff and report on 1-on-1 meetings, stakeholder briefings and community presentations.
- d. *Community outreach events, pop-up tables, and neighborhood festivals*: Attend community events, and/or neighborhood fairs and festivals. CONSULTANT's responsibilities include: scheduling, preparing materials, staffing, reporting and coordinating any follow-up items with CITY OF SHORELINE.
- e. *Closeout report*: Following planning and design phases, compile and summarize outreach activities conducted. Will use CITY OF SHORELINE template.

Assumptions

- a. CONSULTANT will coordinate venues, logistics, printing and staffing plans for all public meetings.
- b. PRIME CONSULTANT will provide to PUBLIC INVOLVEMENT CONSULTANT initial information to be used for open house display boards.

Deliverables

- a. Open house event plan (1 draft and 1 final plan)
- b. Open house event materials - e.g., FAQs, maps, display boards, talking points, presentation, etc. (2 drafts and 1 final. Up to 10 display boards.)
- c. Open house event attendance/facilitation as needed (up to 1 event)
- d. Open house summary report (1 draft, 1 final summary)
- e. Community presentations (up to 4)
- f. 1-on-1 briefings (up to 8)
- g. Community events, fairs, festivals and markets (2 staff, up to 2 3-hr events)
- h. Community survey (print and online, 2 drafts, 1 final)
- i. Distribution of project materials, flyers, surveys along corridor (up to 2 staff)
- j. Closeout report

7.d Online, Social and Media Engagement

To increase project reach and accessibility of project information, and to provide additional avenues for the public to engage with the project, the CONSULTANT will, in close coordination with CITY OF SHORELINE, employ online tools and tactics.

Elements include:

- a. *CITY OF SHORELINE project webpage development and updates*: CONSULTANT will provide updates to CITY OF SHORELINE for City-hosted page. Webpage updates will be submitted to CITY OF SHORELINE for review, approval, and posting.
- b. *Online open house*: CONSULTANT will plan, develop content, set up, test, promote and report on 1 project online open house. The CONSULTANT will use infocommunity.org, CONSULTANT'S proprietary online tool. CONSULTANT reserves all rights.

Deliverables

- a. CITY OF SHORELINE project webpage updates (up to 3 updates)

- b. Online open house (plan, draft content, test, monitor and report on up to 1)

7.e Communications Materials Development

CONSULTANT will coordinate with CITY OF SHORELINE and the project team to facilitate preparation, production and distribution of communications materials.

Elements include:

- a. *Fact sheets*: Develop and update project fact sheets to share the project's purpose and need, schedule and public input opportunities.
- b. *Open house promotional flyers and mailer*: Develop material to help build awareness of the project and promote engagement through the online and in-person open houses.
- c. *Email updates*: Develop project listserv and project email updates. Other email updates to stakeholders via email as necessary.
- d. *Press releases*: Develop press release drafts as needed to share major milestones.
- e. *PowerPoint presentations*: Coordinate with CITY OF SHORELINE to develop presentations for briefings to stakeholder groups, internal audiences, City Council and/or Mayor's Office.
- f. *CITY OF SHORELINE blog posts*: Develop blog post drafts as needed to share major milestones.

Assumptions

- a. CITY OF SHORELINE will review and approve all materials prior to distribution/use.
- b. CONSULTANT will produce mailer draft(s) and final content for CITY OF SHORELINE to review and approve.
- c. CONSULTANT will be responsible for coordination with printers and mail houses
- d. CONSULTANT will coordinate translation of materials. CITY OF SHORELINE will be responsible to pay directly for costs.
- e. CITY OF SHORELINE will be responsible for and pay directly for the cost of large batches of printing/mailing

Deliverables

- a. Fact sheet/folio (2 drafts and 1 final, up to 1 update)
- b. Email updates (1 draft and 1 final, up to 3)
- c. Press releases (1 draft and 1 final, up to 1)
- d. PowerPoint presentations (1 draft and 1 final, up to 2 updates)
- e. CITY OF SHORELINE blog posts (1 draft and 1 final, up to 2)

7.f Stakeholder comment tracking, responses and reporting

CONSULTANT, in coordination with CITY OF SHORELINE, will track, draft responses for CITY OF SHORELINE review, record and report all stakeholder comments.

Elements include:

- a. *Communications log*: Maintain a log of all communications with the public regarding the project, including both comments received, and responses provided. Communications log will track all forms of communications including emails, phone calls, 1-on-1 outreach and briefings.

- b. *Response development:* Develop responses to public communications and facilitate CITY OF SHORELINE and technical team review. Respond to inquiries directly as appropriate based on discussion with CITY OF SHORELINE.
- c. *Outreach report:* Provide reports of all communications and activities completed as part of public engagement efforts to share at design team meetings. Timing would follow 25 days after completion of outreach activities.

Assumptions

- a. CONSULTANT will use data management system provided by CITY OF SHORELINE to manage project data, including but not limited to contacts, comments, correspondence and other supplemental information.
- b. CONSULTANT will maintain CITY OF SHORELINE project email inbox account. CITY OF SHORELINE will set up and provide CONSULTANT access to account.

Deliverables

- a. Maintain project database and communications log (up to 100 entries)
- b. Develop responses to public communications (up to 10 responses)
- c. Deliver reports of all communications (1 draft and 1 final report)

TASK 8: RIGHT-OF-WAY

8.a ROW NEEDS PLAN

Right-of-way is not assumed to be needed for the project as currently planned. If required, maps will be prepared for up to five (5) parcels to assist with cost estimating and impact identification. This task will include providing preliminary plans showing limits of acquisition areas. The acquisition appraisal processes will be included in the future scope of services.

Assumptions:

- a. No legal descriptions or final exhibit maps will be prepared.
- b. Title reports will not be obtained.

Deliverables:

- a. Exhibit maps to identify preliminary right-of-way acquisition.

8.b ROW ACQUISITION SERVICES

1. Appraisal, acquisition and relocation activities will conform to WSDOT, FHWA and USPAP rules and regulations.
2. All activities will commence during the appropriate project phase.
3. Community meetings and onsite visits as needed
4. Appraiser and appraisal reviewer will be on approved WSDOT appraiser roster
5. Weekly status report to the CONSULTANT/CITY
6. Negotiations to commence after just compensation is determined by appraiser and approved by the CITY.

Assumptions:

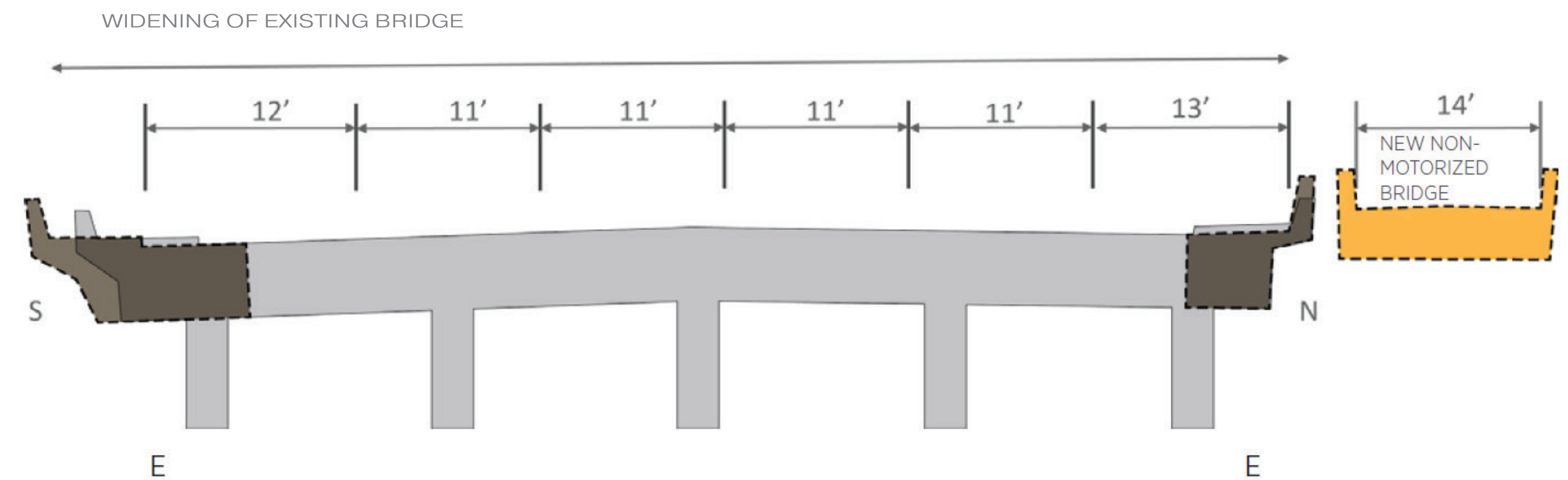
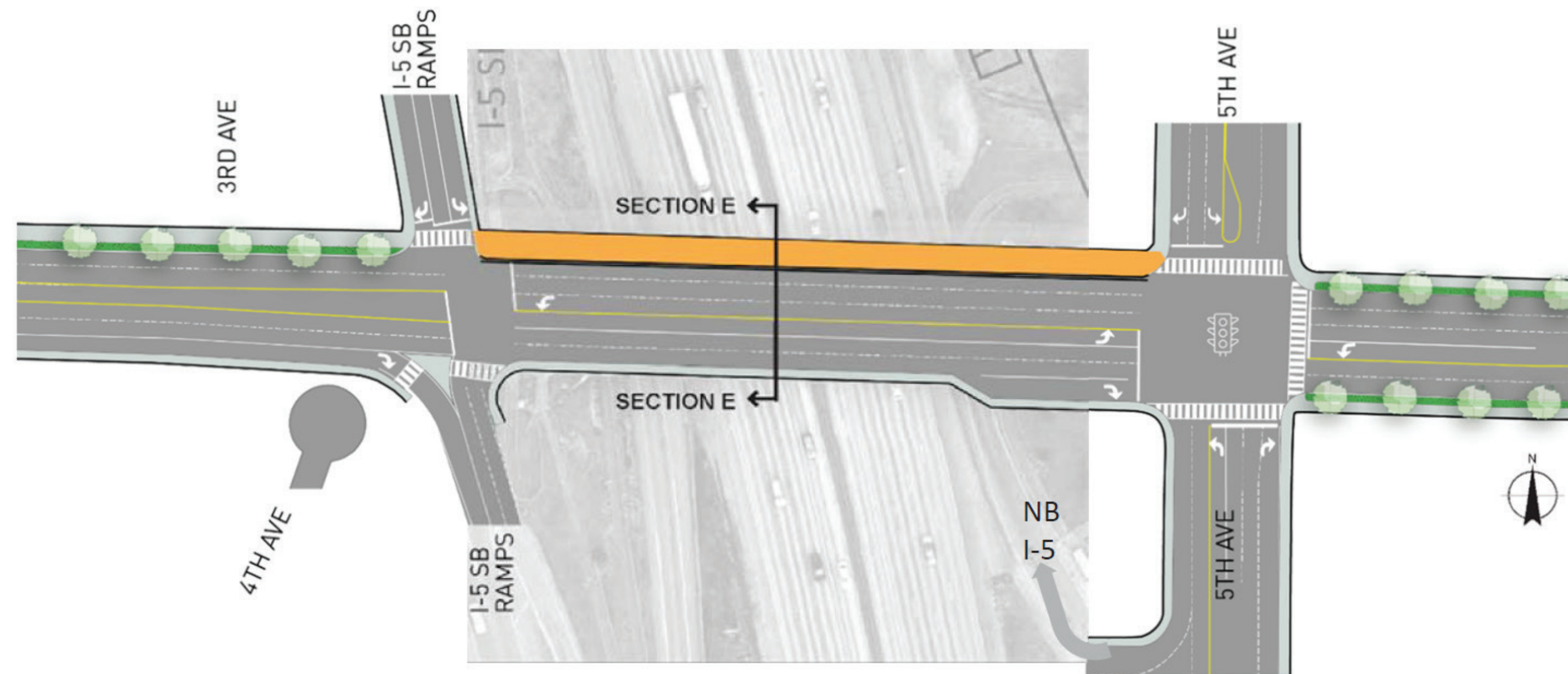
- a. Design consultant to provide current RW maps that show all impacted areas to be acquired
- b. Legal descriptions describing easement area(s) provided by the CONSULTANT.
- c. Title reports to be provided by the CONSULTANT
- d. Scope of fees are for one (1) acquisitions (parcels 283210-0190 Lakeside School;
- e. Recording and escrow fees are not included in scope of fees
- f. Any changes to the acquisition areas that require additional ROW impacts may require additional scope of fees. Option Scope:
 - o Acquisition of two parcels 288170-0371 Portal North LLC; 288170-0373 Lin Cheng Chung & Sei-Hai)
 - o Relocation costs are assumed that there are 2 displaces
- g. The CITY will provide a copy of their approved WSDOT ROW procedures to CONSULTANT's ROW project manager.
- h. Access Control is excluded from this scope of services and assumed if access rights are needed WSDOT will acquire the access rights from adjacent property owners.
- i. Excludes right-of-way acquisition from City of Seattle Parks and Public Utility Department and King County.

Deliverables:

- a. Develop a relocation plan identifying all impacted persons, businesses.
- b. Provide one (1) narrative appraisal and appraisal reviews, for setting just compensation by the CITY.
- c. Develop cost estimates for the required Project Funding estimates
- d. Acquire needed property rights in fee and/or easement as required for the project
- e. Coordinate escrow closings and recording of conveyance documents.
- f. Title clearing as needed
- g. Coordination with WSDOT LAC for file review and certification.
- h. Provide relocation assistance to displaced persons and/or businesses. This includes move estimates, replacement housing assistance, business inventory, site visits, move plans and coordination and advisory services.
Weekly status reports.

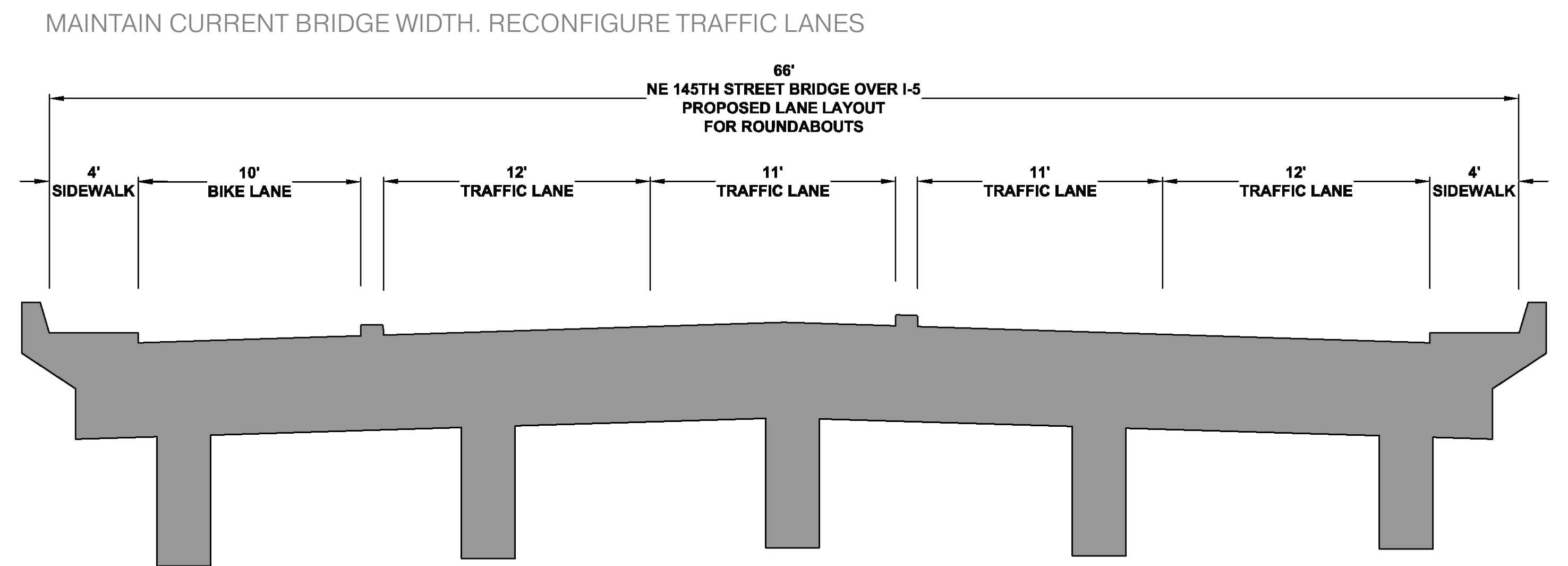
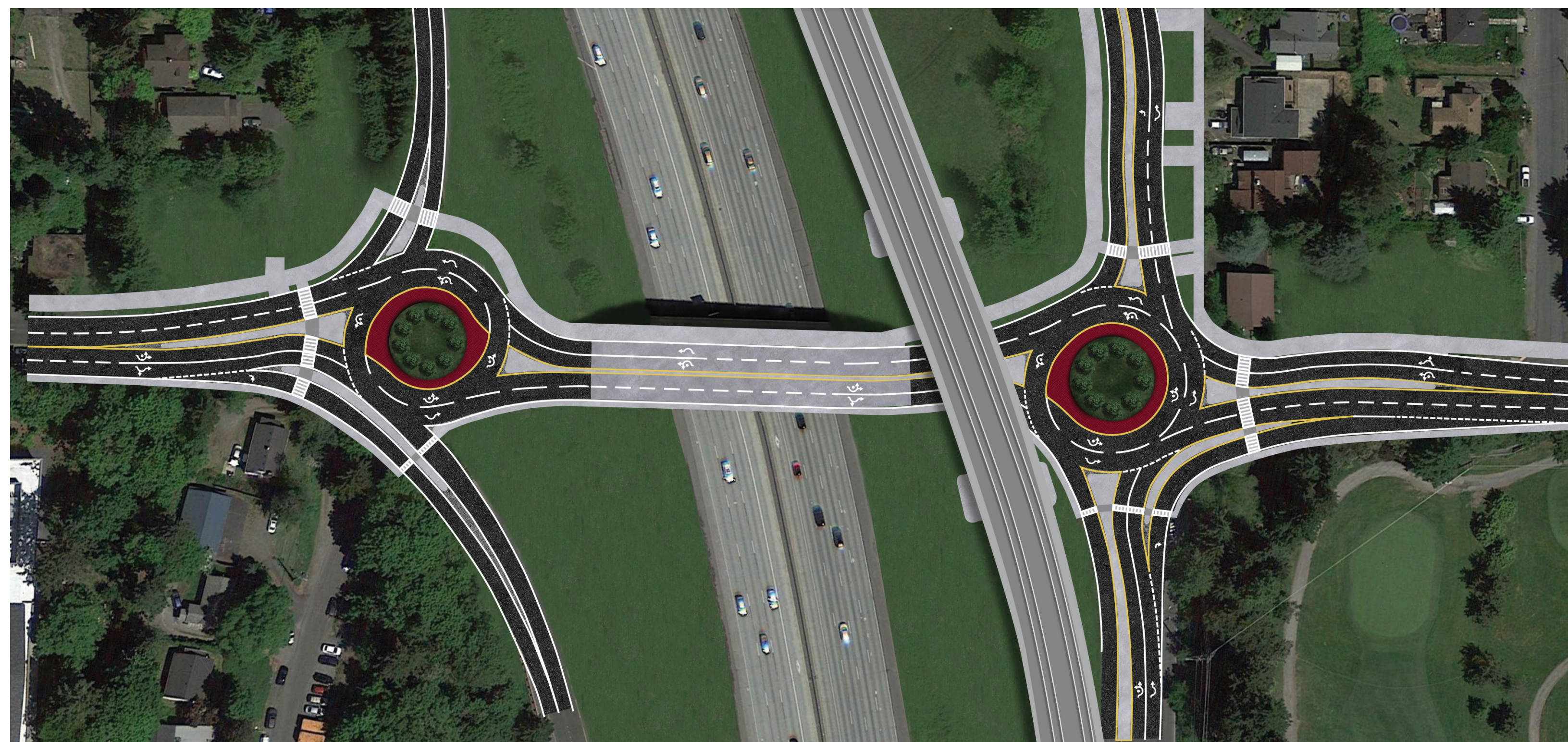
Attachment B - NE 145th Street & I-5 Interchange Project

NE 145th Street and I-5 Interchange - Signalized Intersections



SECTION E

NE 145th Street and I-5 Interchange - Multi-Lane Roundabout Concept



ATTACHMENT C



**Washington State
Department of Transportation**

Northwest Region
15700 Dayton Avenue North
P.O. Box 330310
Seattle, WA 98133-9710
206-440-4000
TTY: 1-800-833-6388
www.wsdot.wa.gov

May 15, 2020

The Honorable Elaine Chao
Secretary, U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, DC 20590

RE: Letter of Intent to assume transfer of the State Route 523 (N/NE 145th Street) & Interstate 5 (I-5) Interchange Project from the City of Shoreline

Dear Secretary Chao:

On behalf of the Washington State Department of Transportation, after multi-year coordination with the City of Shoreline in regard to its State Route 523 (N/NE 145th Street) & Interstate 5 (I-5) Interchange Project ("Interchange Project"), WSDOT submits this letter of intent regarding a project transfer from the City of Shoreline to WSDOT after environmental documentation and 30% design is completed. WSDOT would complete all elements for right-of-way certification, final design, and construction, delivering a completed project.

It has been stipulated that the City of Shoreline must transfer a fully funded project for this to occur. The City of Shoreline is currently applying to the U.S. Department of Transportation for Better Utilizing Investments to Leverage Development Program grant funding. The total project cost is approximately \$25 million. The BUILD grant funding would provide for the remaining balance of the project and allow the transfer to move forward on schedule in fall 2020.

WSDOT staff have worked closely with the City of Shoreline regarding this Interchange Project and agree that the 145th/I-5 interchange, as it is today, creates a bottleneck that interferes with safe and effective connections along this corridor for all users. SR 523 is a regional travel corridor linking I-5 with SR 99 and SR 522, and it provides a critical link for freight, commuters, transit, bicyclists, and pedestrians. It provides access to the regional transit system that connects or will soon connect to our regional growth centers. The number of commuters accessing these growth centers is projected to increase significantly with the new bus rapid transit and light rail services, which will be operating in this corridor by 2024.

WSDOT has been coordinating with the City of Shoreline and other agencies and their projects in this vicinity. The City of Shoreline has built a strong regional partnership for this project with WSDOT; its local elected leaders; Shoreline's state and federal legislative delegations; north Lake Washington cities of Lake Forest Park, Kenmore, Bothell, and Woodinville; the City of Seattle; King County; regional transit agencies, including King County Metro and Sound Transit; the Puget Sound Regional Council; and a number of citizen advocacy organizations.

Ms. Elaine Chao
May 15, 2020
Page 2

As the City of Shoreline progressed the Interchange Project from the conceptual phase to the design phase, our agency asked the City of Shoreline to evaluate roundabouts as an alternative approach for the interchange improvements in addition to the originally proposed preferred design option in their Intersection Control Evaluation. The City's traffic modeling results, as well as national empirical research, have demonstrated that roundabouts are safer and perform better for all modes of transportation at a lower cost than the initial standard proposed improvements. WSDOT concurs with this safety-first approach.

Having supported this project and coordinating with Sound Transit (regional transit authority), which will have both light rail station mitigation and new Bus Rapid Transit facilities that will converge on this Interchange Project area, WSDOT and the City of Shoreline see several advantages in transferring this Interchange Project to WSDOT once environmental documentation and 30% design have been reached (the City of Shoreline has a consultant under contract through these milestones). Some of those advantages include:

- WSDOT has governance of the interchange. Permitting would be able to be expedited more readily in-house.
- WSDOT has a larger staff and more readily available resources for a project of this nature.
- WSDOT is working with Sound Transit and their area projects and would be well-suited for the overall coordination of constructing projects in this area.

WSDOT commends the City of Shoreline for taking initial steps to keep their residents mobile with improvements to safely and efficiently access the region's strong investment in transportation. These improvements will benefit multiple local municipalities and their residents. With the large number of infrastructure improvements required in one of the fastest growing regions in the nation, WSDOT is not able to fund this project; therefore, require that the City secure all necessary funding prior to a transfer to our agency.

It is the intent of WSDOT to assume this project in its entirety once the stipulations above have been met. If full funding is secured, the current schedule would have WSDOT enter into an agreement with the City of Shoreline late this year, 2020, outlining the transfer of this project. WSDOT believes this to be a vital project and a successful partnership for all those involved, and strongly encourages your support to fund the Interchange Project. WSDOT looks forward to working with you for a successful partnership in delivering the completed project.

Sincerely,



Brian Nielsen, PE
Deputy Regional Administrator
Northwest Region

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Public Hearing and Adoption of Resolution No. 458 - Adopting the 2021-2026 Transportation Improvement Plan
DEPARTMENT:	Public Works
PRESENTED BY:	Nytasha Walters, Transportation Services Manager
ACTION:	<input type="checkbox"/> Ordinance <input checked="" type="checkbox"/> Resolution <input type="checkbox"/> Motion <input checked="" type="checkbox"/> Public Hearing <input type="checkbox"/> Discussion

PROBLEM/ISSUE STATEMENT:

In accordance with RCW 35.77.010, cities in Washington State are required to prepare and adopt a comprehensive six-year Transportation Improvement Plan (TIP). The six-year TIP should include transportation projects, such as road and bridge improvements, as well as new or enhanced bicycle and pedestrian facilities. In addition to local projects, the TIP should also identify projects and programs of regional significance for inclusion in the regional TIP. The City's TIP is used to secure federal funding for transportation projects as part of the Statewide TIP.

The draft 2021-2026 TIP was presented to the City Council on April 6, 2020 for discussion. As a result of the Council discussion, there were no modifications to the draft 2021-2026 TIP.

A required Public Hearing would have normally preceded the Council discussion on April 6, but due to the virtual nature of the Council meetings as a result of the Governor's Emergency Proclamation 20-28 regarding health concerns of COVID-19, it was decided to postpone the Public Hearing in hopes that the current situation was improved prior to June 1. Since then, staff have determined that the City will proceed with a virtual Public Hearing.

The purpose of the Public Hearing is to receive comments on the 2021-2026 TIP. All interested persons are encouraged to listen and/or attend the online Public Hearing and to provide oral and/or written comments. Information on how to join the meeting is posted on the [Shoreline Council meetings webpage](#). Any person wishing to provide oral testimony at the Public Hearing is encouraged to register via the Remote Public Comment Sign-in form on the City's webpage at least thirty (30) minutes before the start of the meeting: [City Council Remote Public Comment Sign-In](#). The webpage will also provide additional participation information. A request to sign-up can also be made directly to the Shoreline City Clerk at (206) 801-2230.

If any written comments were received prior to the meeting packet publishing deadline, they are attached to this staff report. Written comment received after the publishing deadline will be sent to the hearing body and uploaded to shorelinewa.gov for the public

to review in the associated meeting folder on this page: [Document Library for Public Comment](#). The City will provide all written comment received before 4:00 pm Local Time on the day of the Hearing to the hearing body; the City will endeavor to upload those comments to the meeting folder in a timely manner.

Tonight, following the Public Hearing to receive public feedback on the proposed 2021-2026 TIP, barring any comments that would result in substantial modifications to the proposed 2021-2026 TIP, Council may choose to adopt the 2021-2026 TIP as is or amend this document by motion prior to adoption of proposed Resolution No. 458 (Attachment A).

RESOURCE/FINANCIAL IMPACT:

There is no financial impact associated with adoption of the TIP. The projects identified in the City's TIP are a combination of funded projects in the Capital Improvement Plan (CIP), including projects that are partially funded or underfunded, as well as currently unfunded projects the City would like to undertake should funding become available. The vast majority of projects included in the TIP are unfunded or partially funded. Listing projects in the TIP makes them grant eligible, as most grant programs will only fund projects included in a jurisdiction's TIP. Staff will request guidance from Council on how to address under or partially funded projects as part of the development of the 2021-2026 CIP.

RECOMMENDATION

Staff recommends that Council hold the Public Hearing for the proposed 2021-2026 Transportation Improvement Plan and that Council adopt Resolution No. 458, which would adopt the 2021-2026 Transportation Improvement Plan as stipulated.

Approved By: City Manager **DT** City Attorney **MK**

BACKGROUND

In accordance with RCW 35.77.010, cities in Washington State are required to prepare and adopt a comprehensive six-year Transportation Improvement Plan (TIP). The City's six-year TIP must be consistent with its Comprehensive Plan transportation element.

Tonight, the City will hold a virtual Public Hearing on the proposed 2021-2026 TIP. RCW 35.77.010 requires that the City hold at least one Public Hearing on the TIP and that the City submit the adopted TIP to the Washington State Secretary of Transportation. The Department of Transportation has historically accepted submittal of TIPs through the month of June. Due to this deadline, barring any public comments that would result in substantial modifications to the proposed 2021-2026 TIP, Council may choose to adopt the 2021-2026 TIP as is or amend this document by motion prior to adoption of proposed Resolution No. 458.

DISCUSSION

The draft 2021-2026 TIP was presented to Council on April 6, 2020. The staff report for this Council discussion can be found at the following link: [April 6, 2020 staff report for Council discussion on the 2021-2026 TIP](#). An overview of Council questions at the April 6, 2020 Council meeting on the draft 2021-2026 TIP and staff responses are as follows:

Status of the Sales and Use Tax Revenue for New Sidewalks

In November 2018, Shoreline voters passed Proposition 1 imposing a 0.2% sales tax to expand the City's Sidewalk System. The Sales Tax from the 0.2% rate increase will be collected for 20 years and is dedicated to the repayment of debt issued to construct new sidewalks. The tax rate increase went into effect on April 1, 2019 and the City collected \$2.021 million from activity during the months of April through December 2019. Staff anticipates that the significant downturn in business activity resulting from closing businesses or severely restricting operations in accordance with the Stay Home – Stay Healthy Order will result in decreased state and local tax revenue collections in March through much of 2020. Current data, comments, and analysis by local government colleagues and economists, and anecdotal evidence available at this time leads staff to believe that this revenue stream may experience a loss within a range of \$124,000 to \$491,000. To ensure that we would not overcommit to projects in Proposition 1 (2018), staff modeled revenue collections at 70% of the actual projected amount, therefore the planned collections for 2020 were projected at \$1.5 million.

The City issued \$10 million in bonds in 2019 that were sold at a premium resulting in \$11.5 million in funding for the New Sidewalks Project. The debt service on those bonds is approximately \$900,000 per year for 15 years with the ability to call the bonds and retire the debt after 10 years. The City anticipates delivering several projects with this initial tranche of debt within the next three years. Additional debt will be issued as needed to complete the initial 12 projects identified in Proposition 1 (2018).

Overall, the Council indicated intent to further look at revenue shortfalls, City priorities, and new revenue streams. There was a desire to make sure there is appropriate Grant Match funding to allow the City to leverage for millions of dollars, and Council will

remain open to suggestions from staff. There was appreciation that staff recommended returning to historical funding levels for the two programs affected by the removal of Vehicle License Fees (due to I-976) as this recommendation gives Council a place to start. There was recognition that other local agencies were in support of the 145th Street corridor projects, and there was a request of staff to continue to identify and as best as possible, prioritize school walking routes.

Priority of Ridgecrest Safe Routes to School

This project is listed in the 2021-2026 TIP and is completely funded. Schedule shows design completion in 2020-2021 with construction in 2021-2022.

Protocol Question on the Timing of the Public Hearing

The Council will be taking action on adopting the 2021-2026 TIP via resolution the same night as the Public Hearing. Council could adopt as is or with minor amendments. If public comment resulted in a major change to the TIP, staff may need to update and return to Council later in June.

As a result of the April 6, 2020 Council discussion, staff has made no project additions, deletions, or edits in the draft 2021-2026 TIP. Tonight, Council will listen to public comment during the required Public Hearing and may choose to amend the 2021-2026 TIP by motion or adopt the 2021-2026 TIP by proposed Resolution No. 458 (Attachment A) as stipulated.

COUNCIL GOAL(S) ADDRESSED

This project addresses Council Goal 2, "Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment." By identifying and developing a plan for multi-modal transportation improvements, the City is working to preserve and enhance the infrastructure. This project also addresses Council Goal 5: "Promote and enhance the City's safe community and neighborhood programs and initiatives" by funding the Traffic Safety Improvements program.

RESOURCE/FINANCIAL IMPACT

There is no financial impact associated with adoption of the TIP. The projects identified in the City's TIP are a combination of funded projects in the CIP, including projects that are partially funded or underfunded, as well as currently unfunded projects the City would like to undertake should funding become available. The vast majority of projects included in the TIP are unfunded or partially funded. Listing projects in the TIP makes them grant eligible, as most grant programs will only fund projects included in a jurisdiction's TIP. Staff will request guidance from Council on how to address under or partially funded projects as part of the development of the 2021-2026 CIP.

RECOMMENDATION

Staff recommends that Council hold the Public Hearing for the proposed 2021-2026 Transportation Improvement Plan and that Council adopt Resolution No. 458, which would adopt the 2021-2026 Transportation Improvement Plan as stipulated.

ATTACHMENTS

Attachment A: Proposed Resolution No. 458

Attachment A, Exhibit A: 2021-2026 Transportation Improvement Plan

RESOLUTION NO. 458

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SHORELINE, WASHINGTON, ADOPTING A REVISED AND EXTENDED SIX-YEAR TRANSPORTATION IMPROVEMENT PROGRAM FOR THE CALENDAR YEARS 2021 THROUGH 2026 AND DIRECTING THE SAME TO BE FILED WITH THE STATE SECRETARY OF TRANSPORTATION AND TRANSPORTATION IMPROVEMENT BOARD.

WHEREAS, the City Council of the City of Shoreline has previously adopted a Comprehensive Plan pursuant to the Growth Management Act, 36.70A RCW, which includes a Transportation Element that serves as the basis for the six-year comprehensive transportation program, commonly referred to as the Transportation Improvement Program (“TIP”), as required by RCW 35.77.010; and

WHEREAS, RCW 35.77.010 requires the City to revise and extend the TIP annually to assure that the City has a guide in carrying out a coordinated transportation program; and

WHEREAS, the City has reviewed the work accomplished under the 2020-2025 TIP adopted by Resolution No. 434, reviewed the City’s Comprehensive Plan, determined current and future City transportation needs, and based upon these findings, a revised and extended TIP for the ensuing six (6) calendar years (2021 through 2026) has been prepared; and

WHEREAS, on June 1, 2020, the City Council held a properly noticed public hearing to receive public input on the revised and extended TIP for the years 2021 through 2026; and

WHEREAS, the City Council, having determined that the revised and extended TIP for the years 2021 through 2026 addresses the City’s transportation needs for the ensuing six years and is consistent with the City’s Comprehensive Plan;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SHORELINE, WASHINGTON, HEREBY RESOLVES AS FOLLOWS:

Section 1. Plan Adopted. The Six-Year Transportation Improvement Program for the City of Shoreline for the ensuing six (6) calendar years, 2021 through 2026, attached hereto as Exhibit A and incorporated herein by this reference, is hereby adopted.

Section 2. Filing of Plan. Pursuant to RCW 35.77.010, the City Clerk is hereby authorized and directed to file a copy of this Resolution no later than thirty (30) days after adoption, together with the Exhibit attached hereto, with both the Secretary of Transportation and the Transportation Improvement Board for the State of Washington.

Section 3. Corrections by City Clerk. Upon approval of the City Attorney, the City Clerk is authorized to make necessary corrections to this Resolution, including the corrections of scrivener or clerical errors; references to other local, state, or federal laws, codes, rules, or regulations; or resolution numbering and section/subsection numbering and references.

ADOPTED BY THE CITY COUNCIL ON JUNE 1, 2020.

Mayor Will Hall

ATTEST:

Jessica Simulcik Smith
City Clerk

Exhibit A

City of Shoreline 2021-2026 Transportation Improvement Plan

1. What is the Six-Year Transportation Improvement Plan (TIP)?

The City of Shoreline Six-Year Transportation Improvement Plan (TIP) is a short-range planning document that is updated annually based upon needs and policies identified in the City's Comprehensive Plan and Transportation Master Plan. It identifies Shoreline's current needed transportation projects and programs for the next six years. Some projects identified in the TIP are significant enough in nature that they will take longer than six years to complete.

2. What is included in the TIP?

A project sheet for each project or program in the TIP has been developed and includes the following:

- **Scope/Narrative:** A description of the project or program including the specific work to be performed, project elements, project/program purpose and/or interagency coordination efforts.
- **Funding:** Identifies whether a project is funded, partially funded or unfunded and known funding sources.
- **Funding Outlook:** A description of the current funding projection for the project, including possible funding sources (when applicable).
- **Project Status:** Identifies Council goals achieved by each project, the stage of a project (such as design, environmental review or construction), previous years' work and expenditures and/or potential revenue sources for projects.
- **Purpose/Goals Achieved:** Identifies which of several purposes the project satisfies and/or general goals the project achieves including Non-motorized Transportation; System Preservation; Growth Management; Improves Efficiency and Operations; Safety; Major Structures; Corridor Study; and/or Interjurisdictional Coordination.

Projects in the TIP are sorted into three categories: Funded Programs, Funded Projects (Fully or Partially), and Unfunded Projects. Projects that are underfunded or partially funded are included in the funded categories. Generally, funded projects are those included in the City's 2021-2026 Capital Improvement Plan. All of the funded programs are considered underfunded, as additional work could be completed through these programs with supplemental funding.

3. Project Costs and Funding

Each project listed in the TIP includes an estimated cost, the amount of funding secured or unsecured and the funding source(s) for the six-year period covered by the TIP. Existing and new project and program costs need to cover all phases of a project

(described below), including the staff time necessary to administer them. If grant funding has been secured from a specific source, it is identified. The Funding Outlook section of each project sheet identifies the total project cost and any previous expenditures. Potential grant funding sources are also identified in this section. Projects listed that are necessary to accommodate growth and allow the City to maintain its adopted Levels of Service (LOS) may be funded in part by Transportation Impact Fees (TIFs). The costs for projects programmed for the first three years of the TIP have been developed with a higher level of detail whereas those in the latter years have been developed with less specificity, as the projects are generally less defined. Unless otherwise noted, project costs do not include the costs for placing overhead utilities underground.

4. Developing the TIP

The annual TIP update starts with the previously adopted TIP. Projects in the previously adopted TIP are reviewed and projects that have been completed, or because of changing conditions, are no longer needed are removed from the TIP. Existing projects may also be updated based upon completed studies, refined project scopes or revised cost estimates. The remaining projects carried over from the previous TIP are reviewed for changes to cost estimates, project funding, schedule, or scope during the update process to ensure that the best information is represented in the TIP.

New projects are generated from many sources, including the City's adopted Transportation Master Plan (TMP), Comprehensive Plan, Council priorities, identification of new issues or deficiencies, response to growth, accident locations or the potential to secure grant funding. The City may use tools such as pavement management rating, analysis of accident data and transportation modeling to help identify potential new projects. Potential new projects undergo a review of scope, priority, schedule and cost analysis.

Updated projects from the previous TIP and new projects are then used to create a draft TIP project list. The phasing and funding of these projects in the draft TIP is based on an evaluation of project priority compared with priorities laid out in the TMP and Comprehensive Plan, commitments to projects and programs that are already underway, secured grants, partnerships the City has entered into with other jurisdictions and agencies and new opportunities that arise to leverage local transportation funding in combination with other funding sources.

Once the draft TIP has been developed, a public hearing is held to provide an opportunity for the community comment. Based on the results of the public hearing and comments from the Shoreline City Council a final version of the TIP is developed. This final version is then adopted by the City Council.

5. Lifecycle of a Project

Depending upon the size and/or degree of complexity associated with a project, it can take several years to complete. For example, the three-mile Aurora Corridor

Improvement Project which was substantially completed in 2016, began the initial planning work in 1997. Large projects may be divided into several smaller projects in order to manage the project more effectively, comply with grant funding requirements or minimize inconvenience to the community during construction. Throughout all phases of a project, the City is committed to maintaining open communications with the community. The process to develop projects generally includes the following steps.

Planning and Alternatives Development – During this phase, conceptual ideas for a project are identified, evaluated, and narrowed, sometimes to a single option. Citizens, community organizations, neighboring jurisdictions and other stakeholders help shape the project. Public meetings provide updates to the community and help the City gather feedback.

Preliminary Design and Environmental Review – This phase identifies potential environmental impacts of the project alternative(s). The level of review and documentation depends on the scope of the project and its potential for environmental impacts. An Environmental Impact Statement (EIS) is prepared for large projects with potentially significant impacts. Development of a State Environmental Policy Act (SEPA) checklist may be prepared for projects not requiring an EIS. A similar review under the National Environmental Policy Act (NEPA) is required for projects that receive federal funding. The project's design moves from conceptual to preliminary as initial engineering begins.

During this phase:

- If required, a SEPA checklist or Draft EIS is published followed by a public comment period. Responses to those comments are found in the Final EIS.
- Preliminary design is completed.
- The City selects the project that will eventually be built.

Final Design and Property Acquisition – In this phase, architects and engineers define what the project will look like as well as the technical specifications for the project. Field work is performed including testing soil conditions and ground water levels, surveying, and locating utilities. Additionally, the City acquires any necessary private property and easements. This phase is often referred to as “Projects, Specifications and Estimate (PS and E)”.

Construction – Construction time varies widely from project to project. The City balances the need to complete the project on time and on budget while minimizing construction impacts to the community. Unforeseen site conditions, weather, design corrections and the complexity of a project are some of the factors that can influence the schedule. Construction schedules can also be affected by environmental restrictions, such as permissible timeframes to work in fish bearing waters.

6. Funding Challenges for 2020 and Beyond

As is the case for most jurisdictions, the need for transportation improvements in Shoreline greatly outweighs the City’s ability to fund them in both the short and long

term. In addition to major capital projects such as intersection or corridor improvements, there is an on-going need to maintain the existing system. This includes repair, maintenance and preservation work, such as Bituminous Surface Treatment (BST) or overlays, upgrades and repairs to traffic signals, installation of new streetlights and curb ramp upgrades. It is difficult to estimate the annual backlog or degree to which the City's transportation program is underfunded, as new projects are identified annually and maintenance is a continuous necessity. The unfunded projects included in this six-year TIP (not including the unfunded portions of programs or partially funded projects) total over \$31.3 million.

The City of Shoreline funds transportation capital projects from the General Fund, Real Estate Excise Tax (REET), Transportation Benefit District (TBD), and grant revenue from local, state and federal governments. Because some of these revenue sources are so closely tied to the health of the economy, they can be somewhat unpredictable, making it challenging for the City to plan for transportation improvements with assurance that funding will be available.

Historically the largest sources of funding for Shoreline's transportation programs and projects have been grants. Funding for transportation projects is available from federal, state and local resources. Each funding source has specific rules and guidelines about what types of projects they will fund, how much of a project will be funded and timelines for expenditure of funds.

Most grant programs require a funding match, which means that the City must also contribute funding to the cost of a project. The granting agency may also have restrictions about the source of the funding match. For example, a state funded grant might be restricted from having another state funded grant serve as the match. Funding programs for bicycle and pedestrian transportation projects are very limited, especially in comparison to funding for highway and roadway projects. Quite often, granting agencies prefer to fund construction of projects rather than planning, design or environmental work. Having projects fully designed and "shovel ready" improves their ability to compete for funding. The competitive nature of grant funding and the specific requirements associated with available grants narrow the opportunities for many of the City's high priority projects to obtain outside funding.

In November 2018, a new funding source was secured for the construction of new sidewalk when voters approved a Sales & Use Tax. More information can be found about the Sidewalk Program under Program 2 in this TIP.

In 2018, a \$20 increase in Vehicle License Fees (VLF) was adopted by City Council for sidewalk rehabilitation. Program 1, Sidewalk Rehabilitation Program (Repair and Maintenance), relied on this new funding source. Initial funding was collected in 2019, but passage of I-976 effectively de-funded this program. While the City is looking at any possible funding sources other than VLF, any substantial progress under this program is currently tentative.

I-976 also eliminated the City's \$20 VLF that was used as a primary source of funding for the City's Annual Road Surface Maintenance Program (Program 4) and reduces this program to less than one half of its pre-I-976 revenue.

The City will lose approximately \$1.66 million in annual revenue if I-976 is determined to be constitutional. The Shoreline City Council has indicated that they would like to backfill this lost revenue in 2021-2022 with Real Estate Excise Tax that was not yet budgeted for other capital projects. If I-976 is found constitutional, the City Council will explore new revenue streams or other adjustments.

7. Relationship of the TIP to other Transportation Documents

A. Six-Year Capital Improvement Plan

Once adopted, the TIP helps to guide funding and implementation priorities during the development of the transportation portion of the Capital Improvement Plan (CIP). The CIP is a six-year financial plan addressing capital needs and is updated along with the development of the City's operating budget. The CIP shows the City-funded portion of projects and is constrained by current budget forecasts, whereas the TIP shows the complete project list, including unfunded projects and programs. The first two years of the CIP are adopted as part of the biennial budget, with any updates adopted annually.

B. Transportation Master Plan

The City of Shoreline's Transportation Master Plan (TMP) is the long-range blueprint for travel and mobility, describing a vision for transportation that supports the City's adopted Comprehensive Plan. The TMP provides guidance for public and private sector decisions on local and regional transportation investments, including short-, mid-, and long-range transportation and related land-use activities. In this way, the City can assess the relative importance of projects and schedule their planning, engineering and construction as growth takes place and the need for the facilities and improvements is warranted. It also establishes a prioritization of the projects to be included in future capital improvement plans. The TMP covers all forms of personal travel – by foot, bicycle, wheelchair, transit, and automobile.

This year (2020) the City will begin its update of the TMP that will identify additional multi-modal transportation policies, programs, and projects. In concert with the TMP update, the City will be re-examining its traffic concurrency model which sets the relationship among the City's LOS standards for general-purpose vehicles, the funding needs to accommodate estimated general-purpose traffic growth, and land use assumptions. Concurrency is balanced when growth is matched with needed transportation facilities. During the TMP update process, the City may consider shifting to a Multimodal LOS, as well as consider restructuring TIFs and associated growth projects to help fund the design and construction of additional roadway segments and intersections throughout the city.

The TMP update is a multi-year process with the final updated TMP scheduled to be completed by 2023. Because the types of changes and additions to City's transportation policies, projects, and programs will not be known until the completion of the TMP process, it is not possible to include them in the TIP at this time. Once the TMP update is finalized and new projects and/or programs are defined, they can be included in future TIPs.

C. State and Federal Requirements

State law requires that each city develop a local TIP and that it be annually updated (RCW 35.77.010). It also requires that projects be included in the TIP in order for cities to compete for transportation funding grants from most federal and state sources. Federal grant funded and regionally significant projects from the first three years of the City's TIP are included in the Regional TIP, which is assembled by the Puget Sound Regional Council for King, Kitsap, Pierce, and Snohomish Counties. The Regional TIPs from around the State are then combined to form the State TIP, which is approved by the Governor and then submitted to the Federal Highway Administration and Federal Transit Authority for their review and approval.

Contact Information

For additional information, contact Nytasha Walters, Transportation Services Manager, (206) 801-2481 or nwalters@shorelinewa.gov.

The following is a list of projects included in the TIP. A description of each project can be found in the following pages.

ANNUAL PROGRAMS *(all programs are considered underfunded)*

1. Sidewalk Rehabilitation Program (Repair & Maintenance)
2. Sidewalk Program (New Sidewalk Construction)
3. Traffic Safety Improvements
4. Road Surface Maintenance Program
5. Traffic Signal Rehabilitation Program

FUNDED PROJECTS *(noted if only partially funded)*

6. 145th Street (SR 523) Corridor Improvements, Aurora Ave N to I-5 *(partially)*
7. SR 523 (N/NE 145th Street) & I-5 Interchange Improvements *(partially)*
8. 148th Street Non-Motorized Bridge *(partially)*
9. Trail Along the Rail *(partially)*
10. Meridian Avenue N (N 145th Street to N 205th Street) *(partially)*
11. N/NE 175th Street Corridor Improvements (Stone Ave to I-5) *(partially)*
12. N/NE 185th Street Corridor Improvements *(partially)*
13. Greenwood Ave N /Innis Arden/ N 160th St Intersection Improvements *(partially)*
14. Light Rail Access Improvements: 1st Ave NE, 145th to 155th
15. Light Rail Access Improvements: 5th Ave NE, 175th to 182nd
16. N 160th from Aurora to Dayton
17. Citywide Spot Safety Improvements
18. 195th Pedestrian and Bike Connector
19. Ridgecrest Safe Routes to School

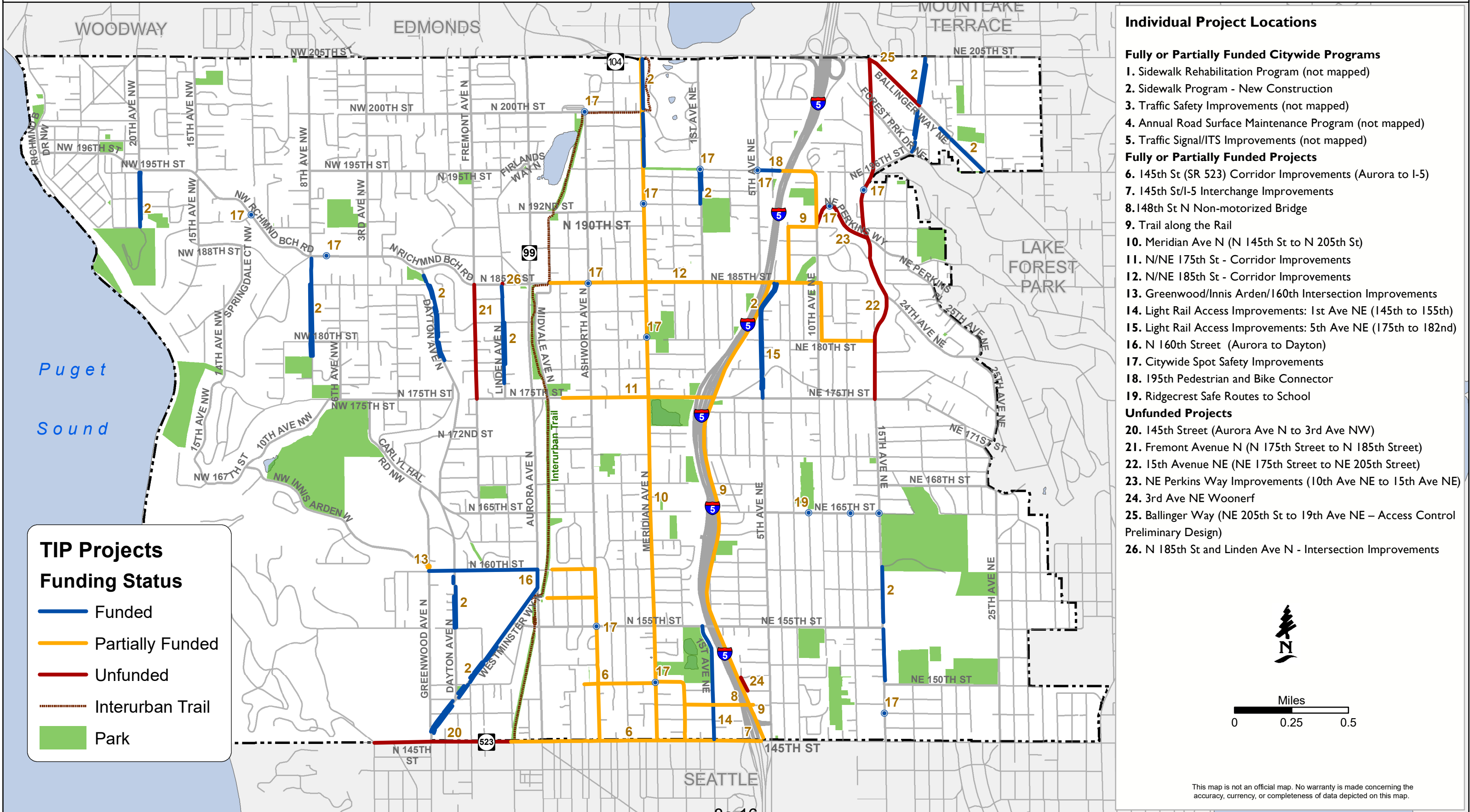
UNFUNDED PROJECTS

20. 145th Street (Aurora Ave N to 3rd Ave NW)
21. Fremont Avenue N (N 175th Street to N 185th Street)
22. 15th Avenue NE (NE 175th Street to NE 205th Street)
23. NE Perkins Way Improvements (10th Ave NE to 15th Ave NE)
24. 3rd Ave NE Woonerf
25. Ballinger Way - NE 205th St to 19th Ave NE Access Control Preliminary Design
26. N 185th Street and Linden Avenue N Intersection Improvements

PROJECTS SCHEDULED FOR SUBSTANTIAL COMPLETION IN 2020

PROJECT NAME	PROJECT DESCRIPTION	COST	FUNDING SOURCES
Westminster and N 155th Street Improvements	Roadway/intersection improvements providing safety for all users and supporting redevelopment of Shoreline Place. Improvements include new traffic signal; revised intersection geometry; sidewalks, curb ramps, crosswalks; new roadway illumination; landscaping; and utility work.	\$5.5 million	<p>The City secured a \$3.6 million Transportation Improvement Board (TIB) grant.</p> <p>The balance of funds come from the private developer of Shoreline Place, Merlone Geier Partners, which will contribute \$1.9 million toward this mitigation work adjacent to their development.</p>
NE 168th Street and 25th Ave NE Intersection Improvements	The Shoreline School District will be doing mitigation work in 2020. Any gap sidewalk work would be covered in Program #2.	n/a	Shoreline School District is completing mitigation work in this area.

Transportation Improvement Plan 2021 to 2026



Project	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total	Due to the ongoing nature of programs, these additional columns are not filled in. Many programs rely on funding to become available in order to continue significant work efforts.			
ANNUAL PROGRAMS											
1. Sidewalk Rehabilitation Program (Repair & Maintenance)	\$ 152,000	\$ 152,000	\$ 152,000	\$ 152,000	\$ 152,000	\$ 152,000	\$ 912,000				
2. Sidewalk Program (New Sidewalk Construction)	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 6,600,000				
3. Traffic Safety Improvements	\$ 175,400	\$ 184,100	\$ 193,300	\$ 199,100	\$ 208,500	\$ 216,600	\$ 1,177,000				
4. Road Surface Maintenance Program	\$ 530,000	\$ 530,000	\$ 530,000	\$ 530,000	\$ 530,000	\$ 530,000	\$ 3,180,000				
5. Traffic Signal Rehabilitation Program	\$ 140,700	\$ 147,800	\$ 152,200	\$ 156,700	\$ 163,400	\$ 171,600	\$ 932,400				
							\$ 12,801,400				
FUNDED PROJECTS (FULLY OR PARTIALLY)								Outer Year Funding (2027+)	Prior Costs (through 2020)	TOTAL PROJECT COST	UNFUNDED
6. 145th Street (SR 523) Corridor Improvements, Aurora Ave N to I-5	\$ 14,024,900	\$ 6,969,700	\$ 8,749,600	\$ 9,270,500	\$ 6,382,000	\$ -	\$ 45,396,700	\$14,188,300	\$4,758,700	\$64,343,700	\$37,447,800
7. SR 523 (N/NE 145th Street) & I-5 Interchange Improvements	\$ 5,139,000	\$ 10,500,000	\$ 8,000,000	\$ -	\$ -	\$ -	\$ 23,639,000	\$0	\$1,861,000	\$25,500,000	\$18,500,000
8. 148th Street Non-Motorized Bridge	\$ 3,800,000	\$ 5,850,000	\$ 5,850,000	\$ -	\$ -	\$ -	\$ 15,500,000	\$0	\$1,500,000	\$17,000,000	\$7,000,000
9. Trail Along the Rail	\$ 100,000	\$ 100,000	\$ 250,000	\$ 250,000	\$ 1,500,000	\$ 1,500,000	\$ 3,700,000	\$5,100,000	\$100,000	\$8,900,000	\$8,600,000
10. Meridian Avenue N (N 145th Street to N 205th Street)	\$ 192,800	\$ 976,900	\$ -	\$ -	\$ -	\$ -	\$ 1,169,700	\$16,727,000	\$205,500	\$18,102,200	\$16,727,000
11. N/NE 175th Street Corridor Improvements (Stone Ave to I-5)	\$ 1,230,500	\$ 1,221,800	\$ 2,240,000	\$ 2,240,000	\$ 4,840,000	\$ 11,940,000	\$ 23,712,300	\$0	\$1,797,900	\$25,510,200	\$16,780,000
12. N/NE 185th Street Corridor Improvements	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ 300,000	\$ 550,000	\$79,450,000	\$550,000	\$80,550,000	\$80,000,000
13. Greenwood Ave N /Innis Arden/ N 160th St Intersection Improvements	\$ -	\$ -	\$ 125,000	\$ 350,000	\$ 1,725,000	\$ -	\$ 2,200,000	\$0	\$0	\$2,200,000	TBD
14. Light Rail Access Improvements: 1st Ave NE (149th to 155th)	\$ -	\$ 150,000	\$ 750,000	\$ 1,100,000	\$ -	\$ -	\$ 2,000,000	\$0	\$0	\$2,000,000	\$0
15. Light Rail Access Improvements: 5 th Ave NE (180 th to 182 th)	\$ 300,000	\$ 750,000	\$ 1,760,000	\$ -	\$ -	\$ -	\$ 2,810,000	\$0	\$150,000	\$2,960,000	\$0
16. N 160th Street (Aurora to Dayton)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 800,000	\$ 800,000	\$0	\$300,000	\$1,100,000	\$0
17. Citywide Spot Safety Improvements	\$ 230,000	\$ 1,241,900	\$ -	\$ -	\$ -	\$ -	\$ 1,471,900	\$0	\$0	\$1,471,900	\$0
18. 195th Pedestrian and Bike Connector	\$ 400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 400,000	\$0	\$100,000	\$500,000	\$0
19. Ridgcrest Safe Routes to School	\$ 38,000	\$ 413,700	\$ -	\$ -	\$ -	\$ -	\$ 451,700	\$0	\$18,000	\$469,700	\$0
							\$ 123,801,300			\$250,607,700	\$185,054,800
UNFUNDED PROJECTS											
20. 145th Street (Aurora Ave N to 3rd Ave NW)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			\$9,725,000	\$0
21. Fremont Avenue N (N 175th Street to N 185th Street)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$7,300,000	\$0	\$7,300,000	\$ 7,300,000
22. 15th Avenue NE (NE 175th Street to NE 205th Street)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$6,200,000	\$0	\$6,200,000	\$ 6,200,000
23. NE Perkins Way Improvements (10th Avenue NE to 15th Avenue NE)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$4,405,000	\$0	\$4,405,000	\$4,405,000
24. 3rd Ave NE Woonerf	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$1,811,000	\$20,000	\$1,831,000	\$1,811,000
25. Ballinger Way - NE 205th St to 19th Ave NE Access Control Preliminary Design	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 350,000	\$ 350,000	\$0	\$0	\$350,000	\$350,000
26. N 185th Street and Linden Avenue N Intersection Improvements	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ 1,000,000	\$ 1,500,000	\$0	\$0	\$1,500,000	\$1,500,000
							\$ 1,850,000			\$31,311,000	\$31,291,000
	\$ 27,553,300	\$ 30,287,900	\$ 29,852,100	\$ 15,348,300	\$ 17,350,900	\$ 18,060,200	\$ 138,452,700			\$144,906,300	\$11,361,100

FUNDED PROGRAMS
(FULLY OR PARTIALLY)

Project # and Name

1. Sidewalk Rehabilitation Program (Repair & Maintenance)

Scope / Narrative

Title II under the Americans with Disabilities Act (ADA) requires a public entity to perform a self-evaluation of its programs, activities, and services, along with all policies, practices, and procedures that govern their administration. Shoreline is also required to create and implement an ADA Transition Plan to make reasonable modifications to remove barriers - both physical and programmatic.

In 2017-2018 the City completed an assessment and inventory of all sidewalk facilities and developed a draft Transition Plan focused on facilities in the right-of-way such as curb, ramps, and sidewalks. Prioritization and preliminary schedules were also included in the report. Under the Sidewalk Rehabilitation program, the City will be identifying those projects to be completed within the next 6 years and moving forward with those improvements, as funding allows. As the sum to complete all ADA upgrades and provide maintenance is a very high, this will be an ongoing program.

Funding

	UNFUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Roads Capital	\$ 152,000	\$ 152,000	\$ 152,000	\$ 152,000	\$ 152,000	\$ 152,000	\$ 912,000

Funding Outlook

Sidewalk, curb, and gutter repairs and maintenance had historically been funded through an annual transfer from the General Fund and was underfunded. In 2018, City Council approved a \$20 increase in Vehicle License Fees (VLF) to supplement funding for repair and maintenance. VLF was collected starting in March 2019.

In November 2019, voters passed State Initiative 976 (I-976) which invalidates the City Council's 2018 VLF approval, severely de-funding this program. Funding has reverted back to the historic funding for the program until such time that other financial resources may be realized.

Based on the City's assessment and initial estimates, the cost to complete retrofits and remove all barriers in the right of way to meet ADA standards in the City is in excess of \$191 million (2018 dollars).

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Project Status

Staff began developing the program implementation plan in late 2019 and will begin design for 2020 construction at mid-2020 with the initial funding collected prior to I-976. This program helps to implement **2019-2021 City Council Goal 2:** Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|---|---|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input checked="" type="checkbox"/> System Preservation | <input type="checkbox"/> Interjurisdictional Coordination |
| <input type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

2. Sidewalk Program (New Sidewalk Construction)

Scope / Narrative

The City Council approved the 2018 Sidewalk Prioritization Plan on June 4, 2018 which created the groundwork for a ballot measure in the November 2018 general election. The ballot measure, Proposition 1, was approved by voters to fund new sidewalk construction. The New Sidewalk Program will be funded through the issuance of bonds supported by Transportation Benefit District 0.2% Sales Tax collected over a 20-year period. The ballot measure identified 12 specific projects to be completed under this program. These projects are listed below in no particular order:

1. 15th Ave NE (from NE 150th ST to NE 160th ST)
2. Meridian Ave N (from N 194th ST to N 205th ST)*
3. 8th Ave NW (from north side of Sunset Park to Richmond Beach RD NW)
4. Dayton Ave N (from N 178th ST to N Richmond Beach RD)
5. 19th Ave NE (from NE 196th ST to NE 205th ST)
6. 1st Ave NE (NE 192nd ST to NE 195th ST)
7. Westminster Way N (from N 145th ST to N 153rd ST)
8. Ballinger Way NE (19th Ave NE to 25th Ave NE)*
9. Dayton Ave N (from N 155th ST to N 160th ST)**
10. 5th Ave NE (from NE 175th ST to NE 185th ST)**
11. Linden Ave N (from N 175th ST to N 185th ST)
12. 20th Ave NW (from Saltwater Park entrance to NW 195th ST)

* *Puts sidewalk on second side (bus route)*

** *Two sides of the street (bus route)*

Prioritization of these projects will be driven by the 2018 sidewalk prioritization plan and specific opportunities to combine with other capital projects and funding.

If there should be additional funds from this source after completion of the 12 projects listed, additional projects will be selected from the 2018 Sidewalk Prioritization Plan. The 2018 Sidewalk Prioritization Plan identifies and provides initial prioritization for additional new construction. The City will continue to look for outside funding opportunities. New sidewalk will also be constructed as the result of private development.

[Link to the 2018 Sidewalk Prioritization Plan](#)

Funding

	FUNDED (annual amounts are currently estimates)						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Bond Issued	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 6,600,000

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Funding Outlook

A series of Limited Tax General Obligation bonds will be issued that will be repaid by the revenue generated by the 0.2% TBD Sales Tax. The principal amount will be limited to \$42 million, which is the amount that staff estimates could be supported by the estimated \$59 million in revenue. The bond series authorized for issuance will have a decreasing laddered maturity with a maximum 20-year maturity to match the remaining term of the tax.

Staff will compare the revenue projections and the expenditures to determine and assess opportunities to build additional projects in accordance with the ballot measure during each biennial budget process and prior to issuing each debt series.

Project Status

This program helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|---|---|
| <input checked="" type="checkbox"/> Non-motorized | <input checked="" type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input type="checkbox"/> Interjurisdictional Coordination |
| <input type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

3. Traffic Safety Improvements

Scope / Narrative

This program addresses priority transportation safety concerns on both arterial and local streets. The primary purpose of this program is to design and implement small spot improvement projects to improve safety and enhance the livability of neighborhoods. Projects include traffic calming devices (speed humps, radar speed display signs, etc.), capital infrastructure (curb ramps, sidewalks, etc.), and operational changes (bike lanes, turn lanes, school signing, etc.).

Funding

FUNDING SOURCE	PARTIALLY FUNDED						2021-2026 Total
	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	
Roads Capital	\$ 175,400	\$ 184,100	\$ 193,300	\$ 199,100	\$ 208,500	\$ 216,600	\$ 1,177,000

Funding Outlook

This program is currently underfunded. Additional improvements that could be implemented with supplemental funding include street lighting and projects identified by the Annual Traffic Report.

Project Status

Annual program, 2021-2026. This program helps to implement **2019-2021 City Council Goal 2:** Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment, and **Goal 5:** Promote and enhance the City's safe community and neighborhood programs and initiatives.

Purpose / Goals Achieved

- | | |
|---|---|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input type="checkbox"/> Interjurisdictional Coordination |
| <input type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

4. Road Surface Maintenance Program

Scope / Narrative

This is an annual program that is designed to maintain the City's roadway network in good condition over the long term, within the limits of the funding provided by the Roads Capital Fund, federal and state grants, and other funding approved by the City Council. Road condition is expressed as Pavement Condition Index (PCI), which is reassessed City-wide on a 5-year cycle. In 2015, the PCI of all Shoreline streets averaged 82 on a 100-point scale. For comparison, highway departments nationwide consider a system-wide average PCI of 75 as "very good". Each street's condition is tracked using a Pavement Management software system, with the goal of maintaining the street's structural condition and ride quality without the necessity of full reconstruction.

Historically, this program has employed a combination of asphalt concrete overlays and Bituminous Surface Treatment (sometimes called chip-seal) to maintain arterial and residential streets; both are designed to extend typical pavement life between 10 and 15 years. Each year, the City uses the Pavement Management system to select streets for preventive maintenance. As part of the program, the City renews pavement markings, channelization, signing and incorporates Complete Street elements.

Funding

	UNFUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Roads Capital	\$ 530,000	\$ 530,000	\$ 530,000	\$ 530,000	\$ 530,000	\$ 530,000	\$ 3,180,000
Unidentified	Further Council discussion is needed prior to future direction and funding for this program. (see Funding Outlook below)						\$ -
PROJECT TOTAL	\$ 530,000	\$ 530,000	\$ 530,000	\$ 530,000	\$ 530,000	\$ 530,000	\$ 3,180,000

Funding Outlook

In 2009, the City Council approved a \$20 Vehicle License Fee (VLF) to fund this program and subsequently added additional annual funding from the Roads Capital Fund.

In November 2019, voters approved State Initiative 976 (I-976) which invalidates the City Council's 2009 approval of VLF and reduces funding of this program by approximately \$830,000 annually until an alternative funding source is identified.

Continued on next page

Project Status

This annual program project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|--|---|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input checked="" type="checkbox"/> System Preservation | <input type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

5. Traffic Signal Rehabilitation Program

Scope / Narrative

The maintenance of safe and efficient traffic signals is an important part of the City's responsibility to all users of the transportation network including drivers, transit providers, pedestrians, and bicyclists. New traffic signal technology provides superior functionality compared to older, obsolete equipment. Intersection improvements are one of the most cost effective ways to improve traffic flow while effective maintenance and operation of traffic signals can increase safety and extend the life of the signal, decreasing overall program costs. Examples of signalized intersection improvements include, but are not limited to:

- New controllers which can accommodate transit signal priority, dynamic emergency vehicle preemption, and coordination of traffic signals along a corridor for increased efficiency.
- Functional detection to ensure signals operate dynamically, based on actual user demand.
- Back up battery systems to keep signals operational during power outages.
- Communication to a central system for efficient signal timing changes, troubleshooting, and reporting.
- Accessible Pedestrian Signals and countdown signal heads for improved safety and ADA compliance.

The ability to keep traffic signals operating and vehicles moving is a key part of Shoreline's Emergency Management Plan.

Intelligent Transportation Systems (ITS) is the application of advanced information and communications technology to transportation. ITS helps roadway users make more informed decisions about travel routes thereby improving efficiency, safety, productivity, travel time and reliability. Elements of an ITS system can include variable message signs, license plate or bluetooth/wi-fi readers, real-time traffic flow maps, traffic monitoring cameras, and communication between traffic signals and a Traffic Management Center (TMC). Existing City ITS components include fiber optic lines, traffic monitoring cameras, and a central signal system for signals along Aurora. The City began operation of a TMC in 2013 to help manage these systems which may be expanded or modified as the City's ITS system grows. This project will fully integrate all City signals, with ITS improvements where appropriate, including traffic monitoring cameras. Future expansions of the system may include coordination with traffic signals in Seattle, cities to the north, and those operated by WSDOT.

Funding

	PARTIALLY FUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Roads Capital	\$ 140,700	\$ 147,800	\$ 152,200	\$ 156,700	\$ 163,400	\$ 171,600	\$ 932,400

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Funding Outlook

This program is currently underfunded. The original goal and associated funding established for this program was to rebuild 2 signal systems annually. Using a standard design and contracting process, signal system rebuild costs can range from \$400,000 - \$1,200,000. With current program funds, this allows for approximately one signalized location to be rebuilt every 3-8 years, which puts the rehabilitation cycle significantly behind schedule.

The ITS portion of the project is currently unfunded. Out of 46 total signalized intersections, 30 do not have established communication to the Traffic Management Center. The cost to establish communication to all signals is not known at this time, however is estimated at well over \$1,000,000. Wireless communication technology is becoming more

Project Status

Annual program 2021-2026. This project helps to implement **2019-2021 City Council Goal 2:** Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|--|---|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input checked="" type="checkbox"/> System Preservation | <input type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

FUNDED PROJECTS
(FULLY OR PARTIALLY)

Project # and Name

6. 145th Street (SR 523) Corridor Improvements, Aurora Ave N to I-5

Scope / Narrative

This project is part of the implementation of the 145th Street Multimodal Corridor Study. The project will make improvements to signalized intersections between I-5 and Aurora Ave N in order to improve transit service, general purpose traffic, and pedestrian crossings. The project will also improve pedestrian facilities along its full length of the north side of the street. Bike facilities will be provided through construction of an Off-Corridor bike network between the Interurban Trail to the west and 1st Ave. North to the east with connections to City of Seattle's planned Off-Corridor south of 145th.

The Design Phase for this project is fully funded through STP grants, Connect Washington Funds, and the City's Roads Capital Fund. Given the highly competitive and limited availability of funding to complete the Right-of-Way (**ROW**) and Construction (**CN**) phases of this corridor, the City is planning to purchase ROW and construct the corridor in phases as shown below. The City is currently working towards completing design, ROW, and CN for Phase 1 (I-5 to Corliss segment of the project) by 2024.

The City has received \$25M towards implementation of the 145th Street Multimodal Corridor Study projects. The City is considering using approximately \$22M of this program to fund ROW and Construction from I-5 to Corliss and is pursuing multiple potential funding sources to support ROW and CN for Phases 2 and 3 of the project.

The project construction schedule will be phased in 3 parts:

Phase 1: I-5 to Corliss (2020 to 2021 Design; 2020 to 2021 ROW; 2022 to 2024 CN)

Phase 2: Corliss to Wallingford (2020-2021 Design; 2022-2023 ROW; 2024-2025 CN)

Phase 3: Wallingford to Aurora (unknown schedule / TBD)

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Funding							
	FUNDED	PARTIALLY FUNDED			UNFUNDED		
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
PH1 - PH3 Design - Roads Capital	\$ 161,600	\$ 41,700	\$ 11,600	\$ 18,100			\$ 233,000
PH1 - PH3 Design - STP	\$ 1,035,700	\$ 267,200	\$ 74,200	\$ 115,800			\$ 1,492,900
PH1 Design - Connecting WA	\$ 500,000	\$ 76,600	\$ 87,000				\$ 663,600
PH1 ROW - Connecting WA	\$ 12,327,600						\$ 12,327,600
PH1 Construction - Connecting WA		\$ 2,754,600	\$ 4,665,500				\$ 7,420,100
PH1 Construction - TBD			\$ 843,600	\$ 2,754,600			\$ 3,598,200
Off-Corridor Bike Network - TBD		\$ 761,900					\$ 761,900
PH2 ROW - TBD		\$ 3,067,700	\$ 3,067,700				\$ 6,135,400
PH2 Construction - TBD				\$ 6,382,000	\$ 6,382,000		\$ 12,764,000
PH3 ROW - TBD							\$ -
PH3 Construction - TBD						\$ -	\$ -
PROJECT TOTAL	\$ 14,024,900	\$ 6,969,700	\$ 8,749,600	\$ 9,270,500	\$ 6,382,000	\$ -	\$ 45,396,700
				Outer Year Funding (Beyond 2026):		\$14,188,300	
				Prior Cost through 2020:		\$4,758,700	
				Total Project Cost:		\$64,343,700	
				Unfunded Portion / Future Funding Need:		\$37,447,800	

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Funding Outlook

The project is funded through local Roads Capital funds, federal STP funds, Connecting Washington Funds and other unknown funding sources (TIB, STP, etc.). The project is separated into three phases to make each phase meaningful, logical, and fundable. All phases have design phase funding which is shared by a federal STP grant and local Roads Capital funds. Federal STP grants will be sought separately for future Right-of-Way and Construction Phases of the project. Additional project costs will occur after 2026. Total project cost to implement the 145th Multi-modal Corridor study from I-5 to the Interurban Trail is estimated at approximately \$64.4 million.

Project Status

The project is in the design phase. This project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment, and **Goal 3**: Continue preparation for regional mass transit in Shoreline.

Purpose / Goals Achieved

- | | |
|--|--|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

7. SR 523 (N/NE 145th Street) & I-5 Interchange Improvements

Scope / Narrative

The City of Shoreline is currently designing the 145th and I-5 Interchange. The City's initial improvement concept, included in the City's Preferred Design Concept, proposed a new I-5 northbound on-ramp, revised 145th bridge deck channelization, and a new pedestrian bridge.

The City's revised concept includes two multi-lane roundabouts to replace the two, existing signalized interchange intersections and the existing I-5 northbound on ramp. Traffic modeling of the roundabouts demonstrated better performance for transit and general-purpose traffic than the concept initially proposed in the City's Preferred Design Concept, and at a lower cost. At this time, the City intends to complete 30 percent design. Advancement of the design to completion, acquisition of Right of Way and the project's construction phase will then be assumed and completed by WSDOT utilizing funding acquired by the City.

The Design Phase for this project is fully funded. The City is striving to complete the Right-of-Way and Construction phases of the project by 2024, prior to the opening of the light rail station near NE 145th Street and I-5 Interchange. A specific funding source to complete this project in the desired timeframe has not been identified and the City continues to be strategic in securing funding partners to enable construction of the project by 2024.

Funding

	FUNDED	UNFUNDED					
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
STP/Roads Cap (Design)	\$ 2,639,000						\$ 2,639,000
Connecting WA (ROW)	\$ 2,500,000						\$ 2,500,000
Unkown (Construction)		\$ 10,500,000	\$ 8,000,000				\$ 18,500,000
PROJECT TOTAL	\$ 5,139,000	\$ 10,500,000	\$ 8,000,000	\$ -	\$ -	\$ -	\$ 23,639,000
				<i>Outer Year Funding (Beyond 2026):</i>		\$0	
				<i>Prior Cost through 2020:</i>		\$1,861,000	
				Total Project Cost:		\$25,500,000	
				<i>Unfunded Portion / Future Funding Need:</i>		\$18,500,000	

Continued on next page

Funding Outlook

The project has \$4.5 million secured to complete design with ~\$3.9 million in federal STP funds and \$600,000 in Roads Capital match. Project is scheduled for 30% design completion in 2020. Final design is scheduled to be completed in 2021. The project will utilize up to \$2.5 million in Connecting WA funds for right-of-way (ROW). Note that Connecting WA funds are currently on hold due to passage of I-976 in November 2019. ROW acquisition will begin concurrently with final design efforts once 60% design is reached in 2021. Construction is scheduled for 2022-2023. Total project cost is \$25.5 million.

Project Status

The project is in the design phase. This project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment, and **Goal 3**: Continue preparation for regional mass transit in Shoreline.

Purpose / Goals Achieved

- | | |
|--|--|
| <input checked="" type="checkbox"/> Non-motorized | <input checked="" type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

8. 148th Street Non-Motorized Bridge

Scope / Narrative

This project will provide a new non-motorized bridge crossing over I-5 from the neighborhood in the vicinity of N 148th Street on the westside of I-5 into the Sound Transit Lynnwood Link Shoreline South/145th Station to be located on the eastside of I-5.

Funding

	FUNDED	PARTIALLY FUNDED	UNFUNDED				
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Sound Transit (ST) and STP funds - Final Design & Permitting	\$ 2,200,000	\$ -					\$ 2,200,000
King County Levy - ROW	\$ 1,600,000						\$ 1,600,000
\$4.7M ST/King County Levy funds. Balance TBD - Construction		\$ 5,850,000	\$ 5,850,000	\$ -			\$ 11,700,000
PROJECT TOTAL	\$ 3,800,000	\$ 5,850,000	\$ 5,850,000	\$ -	\$ -	\$ -	\$ 15,500,000
				<i>Outer Year Funding (Beyond 2026):</i>		\$0	
				<i>Prior Cost through 2020:</i>		\$1,500,000	
				Total Project Cost:		\$17,000,000	
				<i>Unfunded Portion / Future Funding Need:</i>		\$7,000,000	

Funding Outlook

The total cost for this project is estimated to be approximately \$17 million. The 30% design phase will be complete in 2020. The City has successfully obtained funds from the US DOT Surface Transportation Program (STP), the recently passed (August 2019) King County property tax levy, and Sound Transit's System Access funds for design, ROW and partial funding of the construction phase of the project. The City is planning to pursue additional US DOT STP funds, other state grants and the state legislature to address the estimated \$7 million required to complete the construction phase of the project.

Continued on next page

Project Status

This project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment, and **Goal 3**: Continue preparation for regional mass transit in Shoreline.

Purpose / Goals Achieved

- | | |
|---|--|
| <input checked="" type="checkbox"/> Non-motorized | <input checked="" type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

9. Trail Along the Rail

Scope / Narrative

This project will provide an approximately 2.5 mile multi-use trail that roughly parallels the Lynnwood Link Light Rail guideway from Shoreline South/145th Station through the Shoreline North/ 185th Station and to the 195th Street Pedestrian Overcrossing. It is anticipated that portions of the Trail Along the Rail will be built by Sound Transit and it is assumed that steps can be taken working with Sound Transit to ensure that the ability to complete the Trail Along the Rail in the future is not precluded. In order to be more competitive for funding and to better utilize development partnership opportunities, the project is anticipated to be constructed in segments as follows:

Ridgecrest Park Segment: NE 161st St to NE 163rd St

Phase 1: Shoreline North/185th Station to the NE 195th St Pedestrian Overcrossing to the 195th St on-street trail connections

Phase 2: Shoreline South/145th Station to N 155th St

Phase 3: N 155th St to N 175th St

Phase 4: N 175th St to N 185th St

Funding

	FUNDED	PARTIALLY FUNDED	UNFUNDED				
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Ridgecrest Park	\$ 100,000	\$ 100,000					\$ 200,000
Phase 1			\$ 250,000	\$ 250,000	\$ 1,000,000		\$ 1,500,000
Phase 2					\$ 500,000	\$ 1,500,000	\$ 2,000,000
Phase 3							\$ -
Phase 4							\$ -
PROJECT TOTAL	\$ 100,000	\$ 100,000	\$ 250,000	\$ 250,000	\$ 1,500,000	\$ 1,500,000	\$ 3,700,000
				Outer Year Funding (Beyond 2026):		\$5,100,000	
				Prior Cost through 2020:		\$100,000	
				Total Project Cost:		\$8,900,000	
				Unfunded Portion / Future Funding Need:		\$8,600,000	

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Funding Outlook

The total cost for this project is estimated to be approximately \$9 million. Currently, there is approximately \$300,000 in the CIP allocated to this project. 2021-2026 CIP budget does not include budget for Phase 3 and 4, rather it includes budget for these later phases on the Outer Year Funding line item. City staff hope to leverage primarily non-federal grant sources to implement design, environmental, and construction of the various phases. Sound Transit (as part of the light rail construction) and potential private developments will also be building portions of the trail.

Project Status

Preliminary engineering design for the Ridgecrest Park Phase is planned to start in 2020. This project helps to support **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment, and **Goal 3**: Continue preparation for regional mass transit in Shoreline.

Purpose / Goals Achieved

- | | |
|---|--|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

10. Meridian Avenue N (N 145th Street to N 205th Street)

Scope / Narrative

This project incorporates a series of improvements along this corridor to improve safety and capacity. This project has been identified in the City's Transportation Master Plan as necessary to accommodate growth and allow the City to maintain its adopted Levels of Service. Project improvements may be funded in part by transportation impact fees (TIF).

Construction of corridor improvements will be done in segments with the first segment of improvements to be completed for the N 155th Street to N 175th Street segment by 2022. Specific improvements to this segment will include:

- Channelization of Meridian Ave N from N 155th Street to N 175th Street from one lane in each direction with parking on both sides to one lane in each direction, a center turn lane (or median area depending on location), plus bike lanes.
- Parking can be retained in lieu of median or turn lane if the design/public process determines locations where this is the best fit, as determined by design and outreach process.
- ADA compliant curb ramps, pedestrian refuge islands, and lighting improvement.
- Installation of pedestrian activated flashing beacons for existing crosswalk at N 163rd Street. Pedestrian activated flashing beacons will be installed at N 170th prior to project and will be preserved.

Funding

	PARTIALLY FUNDED	UNFUNDED					
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Roads Capital	\$ 6,000	\$ -					\$ 6,000
Federal - HSIP	\$ 186,800	\$ 976,900	\$ -				\$ 1,163,700
Unknown							\$ -
PROJECT TOTAL	\$ 192,800	\$ 976,900	\$ -	\$ -	\$ -	\$ -	\$ 1,169,700
				<i>Outer Year Funding (Beyond 2026):</i>		\$16,727,000	
				<i>Prior Cost through 2020:</i>		\$205,500	
				Total Project Cost:		\$18,102,200	
				<i>Unfunded Portion / Future Funding Need:</i>		\$16,727,000	

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Funding Outlook

The N 155th Street to N 175th Street segment of the corridor is funded through the local Roads Capital funds, and federal Highway Safety Improvement Program (HSIP) funds. Proposed corridor improvements have been identified in the City's Transportation Master Plan as necessary to accommodate growth and allow the City to maintain its adopted Levels of Service and may be funded in part by Transportation Impact Fees (TIF). This project is anticipated to receive any remaining TIF funds for local match after the 175th Corridor project local match requirements are met with TIF funds.

Project Status

To date, a portion of the corridor has overlay completed as identified in the narrative above. This project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|--|---|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input checked="" type="checkbox"/> System Preservation | <input type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input checked="" type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

11. N/NE 175th Street Corridor Improvements (Stone Ave to I-5)

Scope / Narrative

175th Street is considered a high priority as it is a primary access route to I-5, has relatively high levels of congestion, substandard sidewalks adjacent to an area with high pedestrian volumes next to elementary schools, a church with sizeable park-and-ride lot, bus stops, and a park. This project improves corridor safety and capacity, providing improvements which will tie in with those recently constructed by the Aurora project.

Improvements include reconstruction of the existing street to provide two traffic lanes in each direction with medians and turn pockets; curb, gutter, and sidewalk with planter strip where feasible; bicycle lanes integrated into the sidewalks; illumination; landscaping; and retaining walls where required. The profile of the roadway between Ashworth Avenue N and Stone Avenue N will be flattened to meet standard sight distance requirements. Intersections with high accident rates will be improved as part of this project.

Funding

FUNDING SOURCE	FUNDED				UNFUNDED		2021-2026 Total
	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	
Design and Enviro Review - Federal STP	\$ 1,030,000	\$ 1,030,000					\$ 2,060,000
Design and Enviro Review - Impact Fees	\$ 200,500	\$ 191,800	\$40,000	\$ 40,000			\$ 472,300
ROW - Impact Fees (TIF)			\$2,200,000	\$ 2,200,000	\$ -		\$ 4,400,000
Construction - Unfunded					\$ 4,840,000	\$ 11,940,000	\$ 16,780,000
PROJECT TOTAL	\$ 1,230,500	\$ 1,221,800	\$ 2,240,000	\$ 2,240,000	\$ 4,840,000	\$ 11,940,000	\$ 23,712,300
				<i>Outer Year Funding (Beyond 2026):</i>		\$0	
				<i>Prior Cost through 2020:</i>		\$1,797,900	
				Total Project Cost:		\$25,510,200	
				<i>Unfunded Portion / Future Funding Need:</i>		\$16,780,000	

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Funding Outlook

The City pursued federal grant funding for design and environmental work through the Surface Transportation Program administered by PSRC in 2014. In February 2016 this project was selected from the PSRC contingency list and fully funded for the design and environmental review phases. This project is identified in the City's Transportation Master Plan as a growth project that is necessary to accommodate growth and allow the City to maintain adopted level of service standards. Consequently, it is anticipated that the City will use Transportation Impact Fees (TIFs) collected from private development for the grant matching funds for this project.

Project Status

This project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|--|--|
| <input checked="" type="checkbox"/> Non-motorized | <input checked="" type="checkbox"/> Major Structures |
| <input checked="" type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input checked="" type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

12. N/NE 185th Street Corridor Improvements

Scope / Narrative

The 185th Street Multimodal Corridor Strategy (MCS) is a future-focused vision plan that considers the needs of multiple transportation modes including motorists, pedestrians, bicyclists, and transit operators and riders. The 185th Street Corridor is anchored by the future light rail station on the east side of Interstate 5 (I-5) and composed of three roads: N/NE 185th Street, 10th Avenue NE, and NE 180th Street. For the 185th MCS, the term "185th Street Corridor" is used to succinctly describe the collection of these three streets. The 185th MCS Preferred Option identifies the multi-modal transportation facilities necessary to support projected growth in the 185th Street Station Subarea, a project delivery approach for phased implementation, and a funding strategy for improvements.

Currently, there is no designated CIP funding for improvements to the corridor. 185th Street Corridor improvements will be initially implemented through private development and followed by a series of City capital projects that will reconstruct roadway segments and intersections and fill in gaps in the ped/bike/amenity zones left behind by development.

The 185th Street Corridor is divided into five segments:

Segment A - 185th Street from Fremont Avenue N to Midvale Avenue N (doesn't include Aurora intersection): No roadway improvements. Improvements to ped/bike/amenity zones only.

Segment B - 185th Street from Midvale Avenue N to 5th Avenue NE (west of I-5): four-lane section (two travel lanes and two Business Access and Transit [BAT] lanes), amenity zones, off-street bike lanes, and sidewalks.

Segment C - 5th Avenue NE (west of I-5) to 10th Avenue NE: Sound Transit Lynnwood Link Light Rail Project will be restriping the segment east of 2nd Ave NE to 8th Ave NE into a three-lane section with buffered bike lanes, and construct intersection improvements at 185th St/5th Ave NE (east of I-5) and 185th St/8th Ave NE in time for the Shoreline North/185th Station opening in 2024. The 185th MCS effort has assumed these improvements will remain in place in the near term. Gaps in this segment will be completed over time through the City's capital improvements and/or development frontage improvements.

Segment D - 10th Ave NE from NE 185th Street to NE 180th Street: Two-lane section (two travel lanes) with buffered bike lanes, on-street parking (westside only), amenity zones, sidewalks, and additional flex zone on the westside of the street.

Segment E - NE 180th Street from 10th Avenue NE to 15th Avenue NE: Two-lane section (two travel lanes) with enhanced bike lanes, amenity zones, and sidewalks.

The 185th MCS is anticipated to be implemented (designed and constructed) over the following phases:

Near Term (0-5 years) - City to consider adding 185th Street & Meridian Avenue intersection improvements to the CIP since it is already a growth project that has associated Traffic Impact Fee funding. If this project becomes a CIP, engineering design phase would be initiated but construction wouldn't occur until the Mid Term.

Mid Term (5 -10 years) - Construct 185th Street & Meridian Avenue intersection improvements. Design Segment B, C (gaps), D, & E.

Long Term (10+ years) - Construct Segment B, C, D, and E. Design and construction ped/bike/amenity zone gaps Segment A.

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Funding							
	PARTIALLY FUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
185th St and Meridian Ave Intersection Improvements - 30% Design					\$250,000	\$300,000	\$ 550,000
PROJECT TOTAL	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ 300,000	\$ 550,000
				<i>Outer Year Funding (Beyond 2026):</i>		\$79,450,000	
				<i>Prior Cost through 2020:</i>		\$550,000	
				Total Project Cost:		\$80,550,000	
				<i>Unfunded Portion / Future Funding Need:</i>		\$80,000,000	

Funding Outlook
<p>Currently, there is no CIP funding for the implementation of the 185th MCS. The redesign of the 185th Street and Meridian Avenue intersection is identified in the City's 2011 Transportation Master Plan as necessary to accommodate growth and allow the City to maintain its adopted Levels of Service may be funded, in part, by Transportation Impact Fees. Cost estimate for the 185th Street and Meridian Avenue intersection improvement is 5.5 million. Cost estimate for the entire 185th Street Corridor improvements is approximately 80 million. Cost estimate for 185th Street improvements (Segment A, B, & C) is approximately 63 million. Cost estimate for 10 Avenue improvements (Segment D) is approximately 12 million. Cost estimate for 180th Street improvements (Segment E) is approximately 5 million.</p>

Project Status
<p>On October 28, 2019, Council adopted the 185th MCS. This project helps to support 2019-2021 City Council Goal 2: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment, and Goal 3: Continue preparation for regional mass transit in Shoreline.</p>

Purpose / Goals Achieved
<div> <input checked="" type="checkbox"/> Non-motorized <input type="checkbox"/> System Preservation <input checked="" type="checkbox"/> Improves Efficiency & Operations <input checked="" type="checkbox"/> Safety </div> <div> <input type="checkbox"/> Major Structures <input type="checkbox"/> Interjurisdictional Coordination <input checked="" type="checkbox"/> Growth Management <input type="checkbox"/> Corridor Study </div>

Project # and Name

13. Greenwood Ave N /Innis Arden/ N 160th St Intersection Improvements

Scope / Narrative

Acquire right-of-way and design and construct a roundabout intersection at Greenwood Ave. N, N 160th St. and N Innis Arden Way, adjacent to Shoreline Community College campus. To meet the City's concurrency standard the intersection improvements must be complete by September 2025.

Funding

	PARTIALLY FUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
TBD			\$ 125,000	\$ 350,000	\$ 1,725,000		\$ 2,200,000
						Outer Year Funding (Beyond 2026):	\$0
						Prior Cost through 2020:	\$0
						Total Project Cost:	\$2,200,000
						Unfunded Portion / Future Funding Need:	TBD

Funding Outlook

Funds are anticipated from Shoreline Community College as mitigation for additional traffic volume generated by the expansion of their college campus. The exact amount is unknown at this time.

Project Status

The concept design report was completed in October 2019. The City and Shoreline Community College are coordinating financial and project delivery responsibilities. This project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|--|--|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input checked="" type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

14. Light Rail Access Improvements: 1st Ave NE (145th to 155th)

Scope / Narrative

This project enhances pedestrian access to the Shoreline South/145th Station (Sound Transit light rail) by constructing sections of sidewalk on 1st Ave NE between NE 145th and NE 155th Streets. The project assumes design & construction of cement concrete sidewalk, amenity zone, and placement of curb and gutter to be forward-compatible with future bicycle facilities. Where possible the project will retain any existing sidewalks.

Funding

FUNDING SOURCE	FUNDED						2021-2026 Total
	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	
Funded by Sound Transit <i>(scope adjusted to match available funding)</i>		\$ 150,000	\$ 750,000	\$ 1,100,000			\$ 2,000,000
PROJECT TOTAL	\$ -	\$ 150,000	\$ 750,000	\$ 1,100,000	\$ -	\$ -	\$ 2,000,000
				<i>Outer Year Funding (Beyond 2026):</i>		\$0	
				<i>Prior Cost through 2020:</i>		\$0	
				Total Project Cost:		\$2,000,000	
				<i>Unfunded Portion / Future Funding Need:</i>		\$0	

Funding Outlook

Sound Transit is providing \$2 million for access improvements serving the Shoreline South/145th Station. In the 2020-2025 TIP, this project was listed as two projects on 1st Ave NE, 145th to 149th Streets with an estimated project cost of \$1,273,725 and 149th to 155th Streets which was initially estimated at \$1,503,900 (but would have scope reduced to match the available remaining \$726,275 of Sound Transit funds). Redevelopment is occurring along portions of this project footprint and those developments will include some of the improvements otherwise to be constructed through this project, thus stretching funding dollars. The objective is to utilize the \$2 million to construct as much of the two prior scopes as possible.

Project Status

This project helps to implement **2019-2021 City Council Goal 1:** Strengthen Shoreline's economic climate and opportunities, **Goal 2:** Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment, and **Goal 3:** Continue preparation for regional mass transit in Shoreline.

Purpose / Goals Achieved

- | | |
|--|--|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

15. Light Rail Access Improvements: 5th Ave NE (175th to 182nd)

Scope / Narrative

This project enhances pedestrian and bicycle access to Shoreline North/185th Station (Sound Transit light rail). The project assumes design & construction of sections of sidewalks, amenity zone, and placement of curb and gutter to be forward-compatible with future bicycle facilities, along both sides of 5th Ave NE from NE 175th to 180th St.

Funding

	FUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Sound Transit / Sales Tax	\$ 300,000	\$ 750,000	\$ 1,760,000				\$ 2,810,000
PROJECT TOTAL	\$ 300,000	\$ 750,000	\$ 1,760,000	\$ -	\$ -	\$ -	\$ 2,810,000
						<i>Outer Year Funding (Beyond 2026):</i>	\$0
						<i>Prior Cost through 2020:</i>	\$150,000
						Total Project Cost:	\$2,960,000
						<i>Unfunded Portion / Future Funding Need:</i>	\$0

Funding Outlook

Sound Transit is providing \$2 million for access improvements serving the Shoreline North/185th Station. This is also a priority sidewalk project funded by the increased sales and use tax approved by voters in 2018. In the 2020-2025 TIP, this project was listed as two projects on 5th Ave NE, 180th to 182nd Streets with and 175th to 180th Streets. The two projects have been combined to one utilizing Sound Transit revenue and sales and use tax revenue for sidewalks. The City intends to coordinate and negotiate the construction of this project with the Sound Transit work on this corridor.

Project Status

This project helps to implement **2019-2021 City Council Goal 1:** Strengthen Shoreline's economic climate and opportunities, **Goal 2:** Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment, and **Goal 3:** Continue preparation for regional mass transit in Shoreline.

Purpose / Goals Achieved

- | | |
|--|--|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

16. N 160th Street (Aurora to Dayton)

Scope / Narrative

This project will restripe N 160th Street from Dayton Ave N to approximately Linden to 3-lanes and bike lanes as represented within the Transportation Master Plan, and subsequent Community Renewal Area planning efforts. Additional phases include new sidewalks, a gateway entrance on N 160th St for Aurora Square, and a midblock pedestrian crossing, most effectively implemented with adjacent property redevelopment.

Funding

	FUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Greenwood/ N 160th St/ Innis Arden intersection						\$ 800,000	\$ 800,000
PROJECT TOTAL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 800,000	\$ 800,000
						<i>Outer Year Funding (Beyond 2026):</i>	\$0
						<i>Prior Cost through 2020:</i>	\$300,000
						Total Project Cost:	\$1,100,000
						<i>Unfunded Portion / Future Funding Need:</i>	\$0

Funding Outlook

Early phases of this project assume the restriping from Dayton Ave N to approximately Linden Ave N, sidewalk improvements along the south side of N 160th from Dayton Ave N to approximately Linden Ave N, and construction of a midblock pedestrian crossing between Linden Ave N and Fremont Pl N. Funding and construction by private development associated with Shoreline Place Community Renewal Area is anticipated however the timing is currently unclear for the majority of 160th improvements. Any additional sidewalk improvements along the north side of N 160th, are unfunded at this time. The cost estimate does not include the funding to underground utilities.

Continued on next page

Project Status

This project helps to implement **2019-2021 City Council Goal 1**: Strengthen Shoreline's economic climate and opportunities, and **Goal 2**: Improve Shoreline's infrastructure to continue the delivery of highly-valued public service.

Purpose / Goals Achieved

- | | |
|--|--|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input checked="" type="checkbox"/> Corridor Study |

Project # and Name

17. Citywide Spot Safety Improvements

Scope / Narrative

This project adds a midblock crossing on NW Richmond Beach Rd between 8th Ave NW and 3rd Ave NW. In addition, pedestrian-activated rectangular rapid flashing beacon systems, and radar speed feedback signs will be installed at spot locations citywide. The design will consider how midblock crossing improvements could serve both pedestrians and cyclists.

1. On NW Richmond Beach Rd between 8th Ave NW and 3rd Ave NW, install a midblock crossing, including median refuge island, pedestrian activated flashing beacons, improved lighting, and ADA improvements.
2. Install a pedestrian-activated rectangular rapid flashing beacon system at Meridian Ave N/N 192nd St, Meridian Ave N/N 180th St, Meridian Ave N/N 150th St, NW Richmond Beach Rd/12th Ave NW, 200th St/Ashworth Ave N, N 185th St/Ashworth Ave N, 1st Ave NE/N 195th St, 5th Ave NE/N 195th St, and 15th Ave NE/NE 148th St.
3. Install radar speed feedback signs on 155th St west of Densmore Ave. N, NE Perkins Way west of 11th Ave NE, 15th Ave NE north of NE 192nd St.
4. Pedestrian-activated rectangular rapid flashing beacon systems will be installed at additional locations if funding allows.

Funding

FUNDING SOURCE	FUNDED						2021-2026 Total
	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	
Roads Capital	\$17,800						\$ 17,800
Federal - HSIP	\$212,200	\$1,241,900					\$ 1,454,100
PROJECT TOTAL	\$ 230,000	\$ 1,241,900	\$ -	\$ -	\$ -	\$ -	\$ 1,471,900
<i>Outer Year Funding (Beyond 2026):</i>							\$0
<i>Prior Cost through 2020:</i>							\$0
Total Project Cost:							\$1,471,900
<i>Unfunded Portion / Future Funding Need:</i>							\$0

Funding Outlook

The project is funded through local Roads Capital funds, and federal Highway Safety Improvement Program (HSIP) funds which must be obligated by April 2021 to waive a 10% match.

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Project Status

This project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|---|---|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input type="checkbox"/> Interjurisdictional Coordination |
| <input type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

18. 195th Pedestrian and Bike Connector

Scope / Narrative

This project will construct a shared-use path along NE 195th Street from 5th Avenue NE to the WSDOT Limited Access line east of 7th Avenue NE.

Funding

FUNDING SOURCE	FUNDED						2021-2026 Total
	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	
TIB - Complete Streets	\$ 400,000						\$ 400,000
						Outer Year Funding (Beyond 2026):	\$0
						Prior Cost through 2020:	\$100,000
						Total Project Cost:	\$500,000
						Unfunded Portion / Future Funding Need:	\$0

Funding Outlook

This project is funded through a TIB Complete Streets grant and requires completion by March 2022.

Project Status

This project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|---|---|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input type="checkbox"/> Interjurisdictional Coordination |
| <input type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

19. Ridgecrest Safe Routes to School

Scope / Narrative

This project will install School Speed Zone Flashers on NE 165th Street at the beginning of the school zone in both directions. This project will also install modify the existing pedestrian crossing on 165th Avenue and 12th with the use of curb extensions that visually and physically narrow a roadway, creating a safer and shorter crossing for pedestrians. The design will consider how improvements could serve both pedestrians and cyclists.

Detailed Project Description:

1. School Speed Zone Flashers and Radar Speed Feedback Displays.
 - a. NE 165th Street and 9th Ave NE – Facing West
 - b. NE 165th Street and 15th Ave NE – Facing East
2. Pedestrian Crossing Curb Extension, Crosswalk Signage, and Markings.
 - a. NE 165th Street and 12th Ave NE
3. Modification to align the existing school entrance driveway and offset on 12th Ave NE.
4. Sidewalk adjustments on both sides of NE 165th Street and 12th Ave NE providing safe landings.
5. Educational outreach to surrounding neighborhood and school postcards will be sent to residents within a quarter mile of the project, and to the school for distribution, informing drivers of the new School Speed Zone Flashers, and generally sending a reminder to be courteous and cautious within school zones.

Funding

FUNDING SOURCE	FULLY FUNDED						2021-2026 Total
	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	
Roads Capital	\$3,000	\$6,000					\$ 9,000
State - SRTS	\$35,000	\$407,700					\$ 442,700
PROJECT TOTAL	\$ 38,000	\$ 413,700	\$ -	\$ -	\$ -	\$ -	\$ 451,700
				<i>Outer Year Funding (Beyond 2026):</i>			\$0
				<i>Prior Cost through 2020:</i>			\$18,000
				Total Project Cost:			\$469,700
				<i>Unfunded Portion / Future Funding Need:</i>			\$0

Funding Outlook

The project is funded through local Roads Capital funds, and Washington State Safe Routes to School (SRTS) funds.

Continued on next page

Project Status

Estimated design completion in 2020-2021 with construction 2021-2022.

This project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|---|---|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input type="checkbox"/> Interjurisdictional Coordination |
| <input type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

UNFUNDED PROJECTS

Project # and Name

20. 145th Street (Aurora Ave N to 3rd Ave NW)

Scope / Narrative

The 145th Street Corridor Study identified future improvements to 145th Street between Aurora Avenue and 3rd Avenue. These improvements modify the roadway to a 3-lane section with on-street bike lanes where space allows.

Funding

	UNFUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Unknown							\$ -
				Outer Year Funding (Beyond 2026):			\$9,725,000
				Prior Cost through 2020:			\$0
				Total Project Cost:			\$9,725,000
				Unfunded Portion / Future Funding Need:			\$9,725,000

Funding Outlook

The preliminary cost estimate was developed as a planning level opinion of probable cost during the Corridor Study in 2016 and will be refined in future TIPs. No funding has been identified for this project at this time. Design and construction of this segment of roadway would likely occur many years after completion of Project No. 6 (145th Street-SR 523, Aurora Ave N to I-5 Corridor Improvements) and Project No. 7 (SR 523-N/NE 145th Street & I-5 Interchange Improvements).

Project Status

This project is scheduled to be completed after the 145th interchange and segment from I-5 to Aurora Avenue. This project would support **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|--|--|
| <input checked="" type="checkbox"/> Non-motorized | <input checked="" type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

21. Fremont Avenue N (N 175th Street to N 185th Street)

Scope / Narrative

Fremont Ave N serves as a primary route to Shorewood High School and Shoreline's Town Center. This project incorporates a series of improvements along this corridor to improve safety and capacity including:

- Rechannelization of the roadway to a three lane cross-section (one travel lane in each direction with a center turn lane) with bicycle lanes.
- Construction of sidewalks on both sides of the street. All sidewalks would be five to eight feet wide, include curb and gutter and five foot amenity zones separating the pedestrians from the roadway.
- Perform overlay/preservation work.

These projects can be constructed individually, allowing the complete set of improvement to be phased over time.

Funding

	UNFUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Unknown							\$ -
				<i>Outer Year Funding (Beyond 2026):</i>			\$7,300,000
				<i>Prior Cost through 2020:</i>			\$0
				Total Project Cost:			\$7,300,000
				<i>Unfunded Portion / Future Funding Need:</i>			\$7,300,000

Funding Outlook

The funding identified for this project is a rough estimate only. Design, ROW and Construction costs and a timeline for completion will be updated in future TIPs.

Project Status

This project helps to implement **2019-2021 City Council Goal 1:** Strengthen Shoreline's economic climate and opportunities, and **Goal 2:** Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|---|--|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

22. 15th Avenue NE (NE 175th Street to NE 205th Street)

Scope / Narrative

This project would construct sidewalks and accessible bus stops on the west side of the road from NE 180th St to NE 205th St. There are significant topographic challenges related to constructing a sidewalk on the west side of this arterial. A corridor study will be performed to identify a preferred transportation solution for this roadway segment. Alternatives to accommodate bicycles will be analyzed, including rechannelization of the roadway from four lanes to three. The cross-section of the road from NE 175th St to NE 180th St would be reduced from four lanes to three and bicycle lanes would be installed. Right-of-way may need to be purchased to complete this project. This project is currently unfunded and a specific year for funding is not known.

Funding

	UNFUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Unknown							\$ -
				Outer Year Funding (Beyond 2026):			\$6,200,000
				Prior Cost through 2020:			\$0
				Total Project Cost:			\$6,200,000
				Unfunded Portion / Future Funding Need:			\$6,200,000

Funding Outlook

No funding has been identified for this project. Initial step would be a study to identify the appropriate improvements for the roadway and develop cost estimates. Design, ROW and construction costs and a timeline for completion will be included in future TIP updates.

Project Status

This project helps to implement **2019-2020 City Council Goal 2:** Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|--|---|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input checked="" type="checkbox"/> Corridor Study |

Project # and Name

23. NE Perkins Way Improvements (10th Ave NE to 15th Ave NE)

Scope / Narrative

The project would construct bicycle and pedestrian improvements on NE Perkins Way from 10th Ave NE to 15th Ave NE. This roadway segment currently includes two travel lanes and a pedestrian walkway on the north side separated from the travel lanes by jersey barriers. No bicycle facilities are present. This segment is part of the Northern Connector route from the Interurban Trail in Shoreline to the Burke-Gilman Trail in Lake Forest Park. Upon completion of the separated trail at NE 195th Street from 1st Ave NE to 5th Ave NE and installation of signage along the remainder of the route, this segment will remain the final gap within the connector route.

Funding

UNFUNDED							
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Unknown							\$ -
				Outer Year Funding (Beyond 2026):			\$4,405,000
				Prior Cost through 2020:			\$0
				Total Project Cost:			\$4,405,000
				Unfunded Portion / Future Funding Need:			\$4,405,000

Funding Outlook

No funding has been identified for this project. Initial step would be a study to identify the appropriate improvements for the roadway and develop cost estimates. Design, ROW and construction costs and a timeline for completion will be included in future TIP updates.

Project Status

This project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|---|---|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input type="checkbox"/> Interjurisdictional Coordination |
| <input type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input checked="" type="checkbox"/> Corridor Study |

Project # and Name

24. 3rd Ave NE Woonerf

Scope / Narrative

A “woonerf” is an urban design tool which originated in the Netherlands. It is intended to transform streets from auto prioritized spaces to shared spaces for all modes of transport, including pedestrians and cyclists. Woonerfs are designed to reduce vehicular travel speeds, as opposed to using the traditional method of signs and speed-bumps.

A woonerf blends the line between pedestrian and vehicle paths. By removing curbs and any indication of a car travel line, while at the same time adding landscaping and street furniture, so that the public realm for pedestrians is expanded into the street. Parking areas are dispersed to prevent a wall of cars blocking access to the street. Curves are used to reduce speeds as drivers intuitively slow down to maneuver turns. Also, if a driver is able to see what is around the corner, they will slow down to anticipate yielding to an unexpected situation e.g. people walking or bicycling. Raised sidewalks are eliminated in a woonerf, since the idea is that pedestrians, cyclists, and vehicles share the same space.

The concept for the 3rd Avenue NE Woonerf is the creation of a slow-paced, curbless street (where pedestrian and bicycle movements are prioritized and vehicles are invited guests) by extending 3rd Avenue NE between NE 149th Street and NE 151st Street. The 3rd Avenue NE Woonerf creates a pedestrian and bike connection to the adjacent Shoreline South/145th Station and incorporates the eastern terminus of the proposed 148th street non-motorized bridge and north/south alignment of the proposed Trail Along the Rail.

Funding

	UNFUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
No identified source							\$ -
				Outer Year Funding (Beyond 2026):			\$1,811,000
				Prior Cost through 2020:			\$20,000
				Total Project Cost:			\$1,831,000
				Unfunded Portion / Future Funding Need:			\$1,811,000

Continued on next page

Funding Outlook

2021-2026 CIP does not include budget for design development and timing of construction is unknown at this time; project costs are shown as a placeholder. The City will not be pursuing grant funding at this time and instead look to redevelopment to help these improvements occur. City staff has incorporated the 3rd Ave NE Woonerf's street and frontage improvements into the Engineering Development Manual's Appendix F: Street Matrix and is actively working on how the 148th Street Non-Motorized Bridge's eastern terminus and the Trail Along the Rail will interface with the long-term vision for the 3rd Ave NE Woonerf. City staff will continue to coordinate with Sound Transit on not precluding the future 3rd Ave NE Woonerf. In addition, City staff will continue to use the 3rd Ave NE Woonerf conceptual renderings as communication tools when working with the public and potential developers.

Project Status

A preliminary concept of the 3rd Ave NE Woonerf was presented to City Council on January 8, 2018. City staff will continue coordination with Sound Transit to not preclude its future design and work with potential developers of adjacent properties to the 3rd Ave NE Woonerf to coordinate street frontage and access improvements. This project helps to support **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment, and **Goal 3**: Continue preparation for regional mass transit in Shoreline.

Purpose / Goals Achieved

- | | |
|--|--|
| <input checked="" type="checkbox"/> Non-motorized | <input checked="" type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

25. Ballinger Way - NE 205th St to 19th Ave NE Access Control Preliminary Design

Scope / Narrative

Access control and pedestrian improvements along this corridor are needed to address vehicle and pedestrian collisions as identified in the City's Annual Traffic Report. Preliminary design to determine the scope of access control and intersection improvements is needed as a first step. Scoping will also identify pedestrian and bicycle safety improvement opportunities, specifically related to midblock crossings. Right-of-way may need to be acquired in order to provide U-turns at signals and/or at access points.

Funding

	UNFUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Unknown						\$ 350,000	\$ 350,000
				<i>Outer Year Funding (Beyond 2026):</i>			\$0
				<i>Prior Cost through 2020:</i>			\$0
				Total Project Cost:			\$350,000
				<i>Unfunded Portion / Future Funding Need:</i>			\$350,000

Funding Outlook

This project is competitive for funding from the Citywide Safety Grant administered through WSDOT.

Project Status

This project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|--|--|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input type="checkbox"/> System Preservation | <input checked="" type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

Project # and Name

26. N 185th Street and Linden Avenue N Intersection Improvements

Scope / Narrative

This project would rebuild the intersection of Linden Ave N and N 185th Street, revising signal phasing to address at-angle collisions as identified by the City's Annual Traffic Report. This project would also decrease intersection radii to lower vehicle turning speeds and reduce pedestrian crossing distances for increased pedestrian safety. Sidewalks, curb ramps and pedestrian signal systems for ADA compliance would also be addressed. The current signal infrastructure does not have capacity to provide these phase changes and pedestrian improvements unless the intersection is rebuilt. The project would also consider how to accommodate bicyclists to and through this intersection.

Funding

	UNFUNDED						
FUNDING SOURCE	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate	2026 Estimate	2021-2026 Total
Unknown					\$ 500,000	\$ 1,000,000	\$ 1,500,000
				Outer Year Funding (Beyond 2026):		\$0	
				Prior Cost through 2020:		\$0	
				Total Project Cost:		\$1,500,000	
				Unfunded Portion / Future Funding Need:		\$1,500,000	

Funding Outlook

This project may be competitive for funding from the Citywide Safety Grant administered through WSDOT. Given the aging infrastructure at this location, Traffic Signal Rehabilitation Program funds could be used to partially fund this project.

Project Status

This project helps to implement **2019-2021 City Council Goal 2**: Continue to deliver highly-valued public services through management of the City's infrastructure and stewardship of the natural environment.

Purpose / Goals Achieved

- | | |
|--|---|
| <input checked="" type="checkbox"/> Non-motorized | <input type="checkbox"/> Major Structures |
| <input checked="" type="checkbox"/> System Preservation | <input type="checkbox"/> Interjurisdictional Coordination |
| <input checked="" type="checkbox"/> Improves Efficiency & Operations | <input type="checkbox"/> Growth Management |
| <input checked="" type="checkbox"/> Safety | <input type="checkbox"/> Corridor Study |

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Adoption of Resolution No. 459 – Temporarily Authorizing Meetings and Public Hearings to be Held Remotely Due to the COVID-19 Public Health Emergency
DEPARTMENT:	City Attorney's Office
PRESENTED BY:	Margaret King, City Attorney
ACTION:	<input type="checkbox"/> Ordinance <input checked="" type="checkbox"/> Resolution <input type="checkbox"/> Motion <input type="checkbox"/> Discussion <input type="checkbox"/> Public Hearing

PROBLEM/ISSUE STATEMENT:

City Council Rules along with the Planning Commission's Rules and the common practice of the Parks, Recreation and Cultural Services Board and the Tree Board (collectively, Parks Board), provide for meetings and public hearings to be held either in Council Chambers or Room 303 of Shoreline City Hall.

Due to the COVID-19 public health emergency and directives from the Governor's Office and Public Health Authorities, City meetings and hearings have either been cancelled, postponed, or held remotely via the Zoom Platform, as mandated by the Governor's Proclamation 20-28. The purpose of conducting remote or "virtual" meetings and hearings is to prohibit the gathering of people together in order to help prevent the spread of COVID-19. Staff believes that this purpose continues to exist until such time as the COVID-19 public health emergency has been terminated.

Staff recommends that a Resolution expressly authorizing and providing general requirements for remote meetings and hearings is needed to protect Shoreline residents and ensure the continuity of government while still providing for open, public meetings and hearings that the public may attend and provide public comment and participation in a variety of ways.

RESOURCE/FINANCIAL IMPACT:

Currently, the monthly Zoom cost for meetings is a flat rate of \$292.01, which includes standard features, audio conferencing/dedicated dial-in number, and webinar features. The City's Zoom account is not limited to the City Council but shared by all Boards and Commissions. The City's account does not limit the number of meetings the City can have per month. Staff resources to schedule and coordinate Zoom meetings and hearings are equivalent to in-person meetings and hearings at City Hall.

RECOMMENDATION

Staff recommends that the City Council adopt Resolution No. 459 permitting remote meetings and public hearings until the City Council determines it is safe to conduct meetings in a different fashion.

Approved By: City Manager ***DT*** City Attorney ***MK***

DISCUSSION

Since the Governor issued Proclamation 20-25, the Stay Home Stay Healthy directive requiring residents to stay home, and Proclamation 20-28 prohibiting the holding of in-person meetings subject to the Open Public Meetings Act (OPMA), chapter 42.30 RCW, the City Council has been conducting its meetings remotely via the Zoom Platform. Initially, the Planning Commission cancelled its meetings in March but held two (2) meetings remotely in April 2020. The Parks Board will hold its first remote meeting on May 28, 2020.

City Council Rule 5.3 currently provides that regular meetings are to be held in Council Chambers at Shoreline City Hall. City Council Rule 5.5 states that workshop dinner meetings are to be held in Room 303 of City Hall. Similarly, Article V of the Planning Commission's Rules states that regular meetings are to be held in Council Chambers. Both the Council and the Planning Commission conduct public hearings within these regular meetings. While the Parks Board Rules do not identify a location, their 2020 schedule denoted all meetings would be held in Room 303. The Council's and Commission's waiver of these rules occurred automatically with Proclamation 20-28, which is due to expire on May 31, 2020, unless the Legislature Leadership provides for an extension, which is not expected. On March 30, 2020 Council suspended Council Rule 5.3 through the length of the City's Declared Emergency.

Consistent with Proclamation 20-28's conditions for conducting remote or "virtual" meetings, the Zoom Platform allows for the public to attend by joining the Zoom meeting in real-time. The Platform also permits the opportunity for the public to provide oral public comment or testimony online or by calling into the meeting. City Council meetings are also live streamed on the internet through the City's traditional streaming service. And, both City Council and Planning Commission meeting videos are archived on the City's website for future viewing.

Even with the pending expiration of Proclamation 20-28, the Stay Home Stay Healthy Proclamation (20-25) is still in effect, with the Governor proposing a four-phased approach to "reopen" Washington State that slowly eases in reductions in physical distancing protective measures, contingent on reduction in COVID-19 cases and other objective standards ("Safe Start Washington").

Phase 1 of Safe Start Washington began on May 5, 2020 which allowed for some very limited opening of golf, fishing, and passive recreation, as well as some additional construction and service activity, all under stringent conditions that do not allow for in-person meetings. Phase 2, originally estimated to begin on June 1, 2020, will permit gatherings of no more than five (5) people from outside a household per week. Due to the restrictive nature of Phase 2, in-person meetings could still not occur in compliance with the restrictions. Not until Phase 3 of the plan will "customer-facing government services" resume and gatherings of up to 50 people and, consequently the possibility of the reinstitution of in-person meetings with strict protective measures.

The above Phases are also contingent on the COVID-19 infection rates and are therefore just best estimates, subject to change should the COVID-19 numbers increase. Accordingly, much uncertainty remains regarding the timing of the Phases.

And, regardless of the Phase timing, even if meetings are possible, strict protective measures such as mandatory social distancing, the use of face coverings, and strict hygiene protocols will still be required by the King County Health Officer.

Title 35A RCW requires that the City Council "shall meet regularly, at least once a month, at a place and at such times as may be designated by the city council" and may call special meetings" subject to certain notice requirements to council members and the public. There is no mandate in the OPMA that regular or special meetings of the City Council, Planning Commission, or Parks Board be held in a particular location, just that all meetings of a governing body be open for the public to attend without placing preconditions on their attendance.

The adoption by the City Council of Resolution 459 would allow the Council to temporarily suspend the location of meetings at City Hall and to instead use appropriate technology to conduct and allow the public to attend and watch or listen electronically or "virtually" in real time, as well as to provide public comment and testimony by electronic means. Given that King County and adjacent Snohomish County have some of the highest rates of confirmed cases of and deaths from COVID-19, continuing to hold electronic meetings and hearings will continue to assist in limiting the spread of COVID-19, while at the same time ensuring open and transparent government, and providing for the safety of staff, elected and appointed officials, and the public.

RESOURCE/FINANCIAL IMPACT

Currently, the monthly Zoom cost for meetings is a flat rate of \$292.01, which includes standard features, audio conferencing/dedicated dial-in number, and webinar features. The City's Zoom account is not limited to the City Council but shared by all Boards and Commissions. The City's account does not limit the number of meetings the City can have per month. Staff resources to schedule and coordinate Zoom meetings and hearings are equivalent to in-person meetings and hearings at City Hall.

RECOMMENDATION

Staff recommends that the City Council adopt Resolution No. 459 permitting electronic "virtual" meetings and public hearings until the City Council determines it is appropriate and safe to conduct meetings in a different fashion.

ATTACHMENTS

Attachment A – Resolution No. 459

Attachment A, Exhibit A – Online Meeting Procedures

RESOLUTION NO. 459

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SHORELINE, WASHINGTON, TEMPORARILY PROVIDING FOR MEETINGS AND PUBLIC HEARINGS OF THE CITY COUNCIL AND CITY BOARDS AND COMMISSIONS TO BE HELD ELECTRONICALLY DUE TO COVID-19 PUBLIC HEALTH EMERGENCY.

WHEREAS, on January 21, 2020 the first reported case of the coronavirus disease (COVID-19) in Washington State occurred in Snohomish County and on February 28, 2020, the Seattle/King County Public Health announced the first King County and United States death due to COVID-19 in Kirkland, Washington; and

WHEREAS, on January 30, 2020, the International Health Regulations Emergency Committee of the World Health Organization declared COVID-19 a public health emergency of international concern; and, on January 31, 2020, the U.S. Department of Health and Human Services declared a public health emergency for COVID-19; and

WHEREAS, COVID-19 is a respiratory disease caused by the SARS-CoV-2 virus, a new strain of coronavirus that had not been previously identified in humans, can easily spread from person to person, and can result in serious illness or death, and has been classified by the World Health Organization as a worldwide pandemic; and

WHEREAS, on February 29, 2020, the Washington State Governor declared a State of Emergency for all counties throughout the state of Washington as a result of COVID-19 pandemic and outbreak and confirmed person-to-person spread of COVID-19 in Washington State; and

WHEREAS, on March 4, 2020, the Shoreline City Manager issued a Declaration of Local Public Health Emergency due to the COVID-19 pandemic, and on March 16, 2020, the Shoreline City Council ratified the Emergency Declaration; and

WHEREAS, as a result of the continued worldwide spread of COVID-19, its significant progression in Washington State, and the high risk it poses in particular to our most vulnerable populations, the Governor, exercising his emergency powers under RCW 43.06.220, has issued various Proclamations (currently 20-06 through 20-53) prohibiting certain activities and waiving and suspending specified laws and regulations; and

WHEREAS, on March 23, 2020, the Governor issued Proclamation 20-25 (Stay Home-Stay Healthy) prohibiting residents from leaving their place of residence and prohibiting all public gatherings regardless of the number of people involved; and

WHEREAS, on March 24, 2020, the Governor issued Proclamation 20-28, that among other things, issued a prohibition on conducting meetings subject to the Open Public Meetings

Act (OPMA), chapter 42.30 RCW, in-person and instead directing that any meetings be held entirely electronically and be limited to consideration of necessary and routine matters or those related to the COVID-19 emergency; and

WHEREAS, on March 23, 2020, in order to protect its citizens and limit the spread of COVID-19, the City Council held its first remote electronic regular meeting, and providing for attendance in the same fashion to the public, along with the ability to provide public comment, and started conducting meetings exclusively on-line March 30, 2020 and continues to convene meetings in this manner; and

WHEREAS, on April 16, 2020, the Planning Commission held its first remote electronic regular meeting with all commissioners attending remotely and providing opportunity for the public to both attend and provide comment remotely; and

WHEREAS, the City Council and Planning Commission have been conducting public meetings and hearings in accordance with Proclamation 20-28, as amended, and consistent with the Council's and Commission's Rules of Procedure; with the public being able to provide public comment and testimony remotely and virtually; the Parks, Recreation and Cultural Services Board and Tree Board (collectively, Parks Board) held its first remote electronic meeting on May 28, 2020; and

WHEREAS, Title 35A RCW, chapter 35A.13 RCW, and RCW 35A.13.170, 35A.12.110, and 35A.12.120 provide the requirement for meetings of the City Council and require that the City Council "shall meet regularly, at least once a month, at a place and at such times as may be designated by the city council;" and may call special meetings by providing the council with written notice delivered to each member of the council "at least twenty-four hours before the time specified for the proposed meeting" with notice to the public "in accordance with RCW 42.30.080, as now or hereafter amended"; and RCW 42.30.070 provides that the City Council is to establish the time for holding regular meetings and also provides a procedure for moving a meeting site in an emergency;" and

WHEREAS, there is no requirement in the OPMA that requires the City Council, Planning Commission, or Parks Board to hold meetings or public hearings in any particular place. The OPMA states that the time and place of regular meetings is to be determined by the applicable body as reflected in its duly adopted rules of procedures or general practices; and

WHEREAS, the OPMA requires that the public be permitted to attend a meeting without preconditions being placed on their attendance; and

WHEREAS, the City Council has provided for technology that allows electronic meetings and hearings and for the public to attend these electronic "virtual" meetings of the City Council, as well as the other public meetings and hearings of the City of Shoreline; and this technology allows the public to attend by watching or listening in real time as well as to provide public comment and public testimony; and the City has been conducting and the public attending such virtual meetings and hearings while Proclamation 20-28, as amended, has been in effect; and

WHEREAS, the City Council, Planning Commission, and Parks Board has previously established the following general rules and procedures with respect to place of public meetings:

City Council

The City Council has adopted the City Council Rules of Procedure. The Rules, last amended by Resolution No. 445, at Section 5, provides that the Council's regular meetings are to be held in the *Council Chamber of the Shoreline City Hall*.

Planning Commission

The Planning Commission's Rules of Procedure, at Article V, states that regular meetings, at which public hearings are conducted, of the Planning Commission are to be held in the *Council Chambers of the Shoreline City Hall* unless changed by a majority vote of the Planning Commission.

Parks Board

The Parks Board's Rules of Procedures are silent as to the location of its meetings, but the Parks Board identifies *Room 303 of the Shoreline City Hall* as the location for its 2020 meeting schedule.

WHEREAS, Proclamation 20-28, as amended, expires on June 17, 2020, and although the worldwide COVID-19 pandemic's progression in Washington State has currently slowed, it continues to threaten the life and health of our people, and remains an extreme public emergency affecting life, health, property, and peace; and

WHEREAS, Proclamation 20-25, as amended, and transition from "Stay Home Stay Healthy" to "Safe Start, Stay Healthy," will expire on July 1, 2020, with limitations on the size of gatherings based on which phase King County is in and, with a requirement for strict protective measures instituted by the State of Washington and/or public health agencies, such as required use of masks, hygiene protocols, and social distancing; and

WHEREAS, due to the ongoing threat COVID-19 poses and the related necessary precautions and restrictions, the City Council has concluded that in order to continue to protect life, health and property of its citizens that upon the expiration of Proclamation 20-28, as amended, it is necessary to continue to hold electronic only "virtual" meetings and hearings, and hereby also directs the Planning Commission and the Parks Board, to only conduct such electronic "virtual" meetings during this public health emergency; and

WHEREAS, by this Resolution the City Council is therefore temporarily moving the location for holding meetings of the City Council, Planning Commission, and Parks Board, from City Hall to an electronic "virtual" location and all agendas and notices shall so reflect the new virtual meeting site, as well as an explanation of how the public may attend the virtual meetings; and

WHEREAS, the City Council has thoroughly considered all applicable and relevant factors in relationship to COVID-19, and deems this action to provide for electronic "virtual"

meetings and public hearings during this emergency is in furtherance of the public interest, and necessary to protect the safety, and welfare of its citizens and property during this emergency;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SHORELINE, WASHINGTON, HEREBY RESOLVES:

Section 1. Remote Meetings and Hearings Authorized.

A. The City Council hereby suspends the following Council Rules:

Rule 5.3 Regular Meetings in Council Chambers at Shoreline City Hall.
Rule 5.5 Workshop Dinner Meetings in Room 303 at Shoreline City Hall.

- B. The City Council further directs the Planning Commission and the Parks Board to suspend any rules or practices that requires meetings or public hearings to occur in person at Shoreline City Hall and to hold all of their meetings virtually.
- C. The City Council, Planning Commission, and Parks Board, shall hold all meetings or public hearings virtually, by electronic means, and shall provide for attendance by members of the public, in real time, that will allow the public listen to or watch the meeting and hear all speakers, and, if applicable, provide for public comment or testimony in accordance with any applicable state law or applicable adopted rules, as modified herein.

Section 2. Remote Meetings and Hearings Procedures.

- A. The Procedures set forth in Exhibit A, are hereby adopted as a baseline for virtual meetings. The City Clerk may modify and provide additional procedures in accordance with the general guidance of this Resolution.
- B. The Planning Commission and the Parks Board may take additional steps and adopt or amend rules or procedures, if necessary, in accordance with this Resolution and the Procedures in Exhibit A.
- C. Nothing in this Resolution precludes the City Council, Planning Commission, or Parks Board from providing an additional opportunity for public participation in a particular case, provided that is done remotely, or the provision of additional or enhanced notice or alternative methods of electronic participation.

Section 3. Agenda and Notice. The City Clerk or the Clerk of any City Board or Commission shall ensure the agenda for a meeting or public hearing and any required notice unequivocally states that the meeting or hearing will be a virtual meeting to be held electronically. The notice shall provide details for watching the meeting or hearing in real time and for providing oral or written public comment or testimony at the meeting or hearing through the internet or telephone. This notice shall be posted on the City's Website and at the usual and customary City Hall locations utilized for posting such notices.

Section 4. Severability. If any one or more sections, subsections, or sentences of this Resolution are held to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portion of this Resolution and the same shall remain in full force and effect.

Section 5. Effective Date of Resolution. This Resolution shall take effect and be in full force immediately upon passage by the City Council. This Resolution shall remain in effect until further action of the City Council amends this Resolution or declares an end to the emergency.

ADOPTED BY THE CITY COUNCIL ON JUNE 1, 2020.

Mayor Will Hall

ATTEST:

Jessica Simulcik Smith, City Clerk



Online Meeting Procedures

These are the public meeting procedures for conducting Virtual Meetings and Hearings by the Shoreline City Council and City Boards and Commissions.

1. PROCEDURES:

The City will conduct “virtual” or electronic meetings or hearings in accordance with these procedures:

1.1. Electronic Remote Access

1. City public meetings and hearings will take place over the Zoom platform.
2. The public may observe the meeting or hearing by streaming it live over the internet, or by joining the meeting or hearing through the Zoom application by computer or telephone. Information regarding joining the meeting or hearing will be provided on the City's webpage and on the meeting agenda itself.

1.2. Virtual Public Participation.

1. **Public Comment at Regular Meetings.** Section 6 of the City Council Rules of Procedure continue to apply to virtual meetings.
 - A. Procedures for providing written and oral public comment can be found on the City's website and will also be provided on the meeting agenda.
 - B. Procedures for the Planning Commission and PRCS/Tree Board virtual meetings shall follow these procedures and the adopted Rules of Procedure for that commission or board.
2. **Public Comment or Testimony for Public Hearings.**
 - A. **Written Public Comment.** Written comment that is received prior to the meeting packet publishing deadline will be attached to the staff report. Written comment received after the publishing deadline will be sent to the hearing body and uploaded to shorelinewa.gov for the public to review in the associated meeting folder on this page:
<http://www.shorelinewa.gov/government/document-library/-folder-5003>

The link to this page should also be referenced in the public hearing staff report. The City will provide all written comment received before 4:00 pm Local Time on the day of the Hearing to the hearing body; the City will endeavor to upload those comments to the meeting folder in a timely manner.

- B. Oral Public Testimony at the Hearing.** The public may provide testimony remotely by joining the hearing through the Zoom application either by computer or telephone. To provide testimony, a member of the public should register via the Remote Public Comment Sign-in form on the City's webpage at least thirty (30) minutes before the start of the meeting. A request to sign-up can also be made directly to the City Clerk at (206) 801-2230.

Oral Public Testimony will also be accepted from individuals who have not pre-registered. After everyone who signed-up has testified at the hearing, the Presiding Officer should call for additional testimony by anyone that has not already spoken by asking hearing attendees to "Raise their Hand" in Zoom. Instructions on how to raise a hand (over the computer and the telephone) will be provided by the Presiding Officer at the time they call for unsigned speakers.

C. Public Meeting and Hearing Notice.

1. The City's meeting and public hearing notice should:
 - i. Clearly identify that the meeting or public hearing will be held remotely, and the public can view/listen and participate in the meeting live by utilizing an internet/online application or by calling into the meeting by telephone;
 - ii. Provide information on how to join the meeting;
 - iii. Set forth the deadlines for providing written comments to present to the body, and set forth a deadline for providing written comments of no later than 4:00 Local Time on the date of the meeting/public hearing;
 - iv. Provide that participation by remote oral public comment may be given at the meeting/public hearing and provide a link to the Remote Public Comment Sign-in Form; and
 - v. Note that all timely received written comments will be posted to the website prior to the meeting or public hearing.
2. Public Hearing Notices are published in accordance with requirements in the Shoreline Municipal Code and City Council, Advisory Board Rules of Procedures.
3. Notice of Regular and Special Meetings consists of posting the information listed in 1. i-iv on the meeting agenda, which is then disseminated as follows:
 - i. Published on body's meeting page on www.shorelinewa.gov;
 - ii. Published to the City's calendar on www.shorelinewa.gov;

- iii. Posted on doors at the east and west entrances to City Hall;
and
- iv. E-mailed to the City Council Meetings listserv through Alert
Shoreline.

Sample Notice Language for Public Hearing

CITY OF SHORELINE VIRTUAL/ELECTRONIC PUBLIC HEARING NOTICE: [Project Title]

The [Council/Planning Commission] of the City of Shoreline will hold an Electronic Public Hearing during a regular meeting of the [Council/Planning Commission] on [Day], [Month] [Day], 20XX at 7:00 p.m. Pursuant to the Governor's Emergency Proclamation 20-28 the public hearing will be held electronically due to health concerns from COVID-19. The hearing and public participation will be held **completely remotely using an online application**. The purpose of the hearing is _____.

All interested persons are encouraged to listen and/or attend the remote online public hearing and to provide oral and/or written comments.

Information on how to join the meeting is posted on

<http://www.shorelinewa.gov/government/council-meetings>.

Written comments should be submitted to [Name], [Title], at [email]@shorelinewa.gov by no later than 4:00 p.m. local time on the date of the hearing. Any person wishing to provide oral testimony at the hearing is encouraged to register via the Remote Public Comment Sign-in form on the City's webpage at least thirty (30) minutes before the start of the meeting: <http://www.shorelinewa.gov/government/council-meetings/city-council-remote-speaker-sign-in>. The webpage will also provide additional participation information. A request to sign-up can also be made directly to the City Clerk at (206) 801-2230.

Any person requiring a disability accommodation should also contact the City Clerk in advance for more information. For TTY telephone services call 546-0457. Each Request will be considered individually according to the type of request, the availability of resources, and the financial ability of the City to provide the requested services or equipment.

Sample Notice Language for Meeting Agenda



[ENTER GOVERNING/ADVISORY BODY NAME] **VIRTUAL/ELECTRONIC REGULAR MEETING**

[Enter Date]
7:00 p.m.

Held Remotely on Zoom
[Enter link here]

In an effort to curtail the spread of the COVID-19 virus, the **[enter governing/advisory body name]** meeting will take place online using the Zoom platform and the public will not be allowed to attend in-person. You may watch a live feed of the meeting online; join the meeting via Zoom Webinar; or listen to the meeting over the telephone.

[Enter governing/advisory body name] is providing opportunities for public comment by submitting written comment or calling into the meeting to provide oral public comment. To provide oral public comment you must sign-up by 6:30 p.m. the night of the meeting. Please see the information listed below to access all of these options:



[Click here to watch live streaming video of the Meeting on shorelinewa.gov](https://www.shorelinewa.gov/meetings)



Attend the Meeting via Zoom Webinar: <https://zoom.us/j/95015006341>



Call into the Live Meeting: (888) 475-4499 - Webinar ID: 950 1500 6341



[Click Here to Sign-Up to Provide Oral Testimony](#)

Pre-registration is required by 6:30 p.m. the night of the meeting.



[Click Here to Submit Written Public Comment](#)

Written comments will be presented to Council and posted to the website if received by 4:00 p.m. the night the meeting; otherwise they will be sent and posted the next day.

CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE: Adoption of Ordinance No. 889 - Amending Chapter 10.05 SMC, the Model Traffic Ordinance, for Clarity and to Establish a City Monetary Penalty for Parking Violations

DEPARTMENT: Public Works

PRESENTED BY: Kendra Dedinsky, City Traffic Engineer

ACTION: ☒ Ordinance ☐ Resolution ☐ Motion
 ☐ Discussion ☐ Public Hearing

PROBLEM/ISSUE STATEMENT:

Shoreline Municipal Code (SMC) Chapter 10.05, Model Traffic Ordinance, establishes non-criminal traffic infraction provisions, and generally reflects Chapter 308-330 Washington Administrative Code (WAC) with some exceptions (per SMC 10.05.020), and amendments (per SMC 10.05.030). Parking violation monetary penalties for Shoreline currently default to the State minimum of \$20, which is less than the cost to the City for King County to process parking violations at approximately \$27. Anticipating the continued uptick in parking citations, the desire to have fines to cover the King County processing costs and the need for a dedicated parking enforcement position in 2024, staff developed proposed Ordinance No. 889. This proposed ordinance reduces parking enforcement costs to the City by increasing the minimum parking violation monetary penalty from default of \$20 to \$50 and creates a \$25 delinquency penalty for untimely payment as authorized by RCW 46.63.110(4). In addition, proposed Ordinance No. 889 includes updates to provide greater clarity, corrects two references to the WAC, and deletes existing references to administrative fees associated with vehicle impound as these fees are inconsistent with current practice.

The City Council discussed the proposed amendments to SMC Chapter 10.05 on May 18, 2020. During this discussion, some Councilmembers expressed comments and concerns on the proposed monetary penalty and late fee. Staff has reflected those comments and concerns in the Discussion section of this report.

Tonight, Council is scheduled to discuss and adopt proposed Ordinance No. 889. Exhibit A to Attachment A provides the proposed amendments to chapter 10.05 SMC. The clarifying amendments, shown in Section A of Exhibit A, are proposed to go into effect five (5) days after passage and publication of the Ordinance. The increased penalties, shown in Section B of Exhibit A, are proposed to go into effect January 1, 2021 to allow time for updating King County administrative materials that Shoreline Police use for traffic enforcement activities.

RESOURCE/FINANCIAL IMPACT:

At the current penalty level, the City of Shoreline General Fund subsidizes parking infraction administrative costs by \$7 per ticket. The proposed \$50 monetary penalty is intended to cover the full Shoreline District Court administrative cost of \$27 per infraction and provide about \$14.50 per infraction as funding for dedicated parking enforcement (after a reduction for court adjustments to the penalty assessed and non-payment). Based on 2019 volumes, staff estimates that the penalty value over the administrative costs would generate an estimated \$18,000 in 2021 to support a future dedicated traffic enforcement program. The annual funding available for parking enforcement is expected to increase modestly each year with a jump when dedicated parking enforcement starts and in 2024 with the opening of Sound Transit Lynwood Link service. Initially, revenue from the penalty will be accumulated by the City and used to support startup costs of dedicated parking enforcement in 2023/2024 budget.

RECOMMENDATION

Staff recommends that the City Council adopt proposed Ordinance No. 889, which amends chapter 10.05 SMC, the Model Traffic Ordinance, to set a minimum monetary penalty for parking violations at \$50, establish a \$25 delinquency penalty, correct two references to the WAC, remove inconsistent code provisions for vehicle impound administrative fees, and to provide for greater clarity in the SMC.

Approved By: City Manager **DT** City Attorney **JA-T**

BACKGROUND

Anticipating the increased demand for on-street parking resulting from the start of light rail service and increased density around the light rail stations, the City Council allocated funding for a parking study, which began in 2018, to obtain baseline parking utilization information, identify current and anticipated future on-street parking capacity challenges, review current practices, and identify parking management tools to manage parking now and into the future.

The Light Rail Subareas Parking Study was discussed with the Council in October 2019 and is available at the following link: [October 28, 2019 staff report on Discussion of the Light Rail Station Subareas Parking Study](#). During this discussion, the Council identified some important near-term action steps to ready the City for an increased role in parking demand management. Specifically, the study showed that parking violation citations have been rising for the last several years and that the start of light rail service and redevelopment is likely to result in the continued uptick in parking violations, further straining the General Fund given the cost incurred by the City for King County to process tickets at the current monetary penalty rate. In addition, parking enforcement activities currently compete with higher priorities for limited existing police resources; there is recognition that violations are sometimes left unaddressed as a result.

In consideration of this, the Council supported the recommendation to develop City-specific monetary penalties in order to recover the cost of processing parking violations and to offset the cost for new dedicated parking enforcement resources needed to address existing and increased future parking enforcement activities. If the proposed penalty amendment is adopted, staff intends to present information on a part-time dedicated parking enforcement position during the 2023/2024 biennial budget process. This position will help the City to respond to parking demand management and safety related challenges, and better prepares the City to efficiently provide services in response to an increased role in parking demand management, particularly within the Light Rail Subareas.

To implement the desire to have fines cover the King County processing costs and the need for a dedicated parking enforcement position in 2024, staff developed proposed Ordinance No. 889 to amend Shoreline Municipal Code (SMC) Chapter 10.05, the Model Traffic Ordinance. In addition, proposed Ordinance No. 889 includes correction of two references to the WAC, deletion of existing references to administrative fees associated with vehicle impound, a delinquency penalty as authorized by RCW 46.63.110(4), and various amendments to provide for greater clarity or reflect current practices.

The City Council discussed the proposed amendments to SMC Chapter 10.05 on May 18, 2020. The staff report for this Council discussion is available at the following link: [Discussion of Ordinance No. 889 - Shoreline Municipal Code 10.05 – Model Traffic Ordinance \(MTO\) Updates](#). During this discussion, some Councilmembers expressed comments and concerns on the proposed monetary penalty and late fee. Staff has reflected those comments and concerns in the Discussion section of this report. A proposed Council amendment to proposed Ordinance No. 889, which was also

discussed during the May 18th Council discussion, is provided in the Discussion section below as well.

DISCUSSION

The proposed monetary penalty amendment was developed in anticipation of increasing costs to the City for parking enforcement activities, which are essential to ensuring public safety and to effectively manage demand.

Peer Review of Parking Enforcement Practices

Parking enforcement activities are not intended to unduly penalize drivers. As such, proposed Ordinance No. 889 was developed to be reasonably consistent with other cities in the region in order to align with driver expectations while also providing some revenue to support anticipated increases in parking enforcement activities and costs.

During the May 18th Council discussion, staff presented information on the minimum monetary penalty for parking violations for eight cities regionally, which ranged from \$35 to \$71. Like Shoreline, the cities of Burien and SeaTac employ dedicated parking enforcement positions and contract with King County for police and court services. Both cities have set minimum monetary penalties at \$50 and given the similarities to Shoreline in terms of enforcement and court structure, were used as the benchmark for the monetary penalty recommendation.

The Council discussion also included a review of dedicated enforcement top-end pay rates, which ranged from approximately \$25 to \$30. The subsequent financial analysis used \$30 as the assumption for a future Shoreline position.

Financial Analysis

The financial analysis discussed during the May 18th Council meeting is based upon limited data that will improve over the next few years as the City continues its work in this area. While staff believes that this analysis is 'directionally correct' and relatively fiscally conservative, it is not intended to be a budget proposal, which for the enforcement position is anticipated to come to the City Council in the 2023/2024 biennial budget.

The financial analysis for parking enforcement activities are based upon the following assumptions:

- The minimum monetary penalty per parking violation citation is \$50.
- \$27 is deducted for King County District Court costs and processing.
- Revenue per citation has been reduced by 17% to account for court reductions and non-payment.
- The amount available to the City is then about \$14.50 per citation.
- Updated penalty starts on January 1, 2021.
- There were 1,110 parking citations issued in 2019, and this financial analysis assumes a 5% increase in citations year over year starting in 2020 with a 20% increase in 2024 and 2025 (related to the start of light rail service), then back to 5% increase.

- Revenue from payment late fees or Restricted Parking Zone (RPZ) permits are not included in this analysis.
- Dedicated parking enforcement begins in 2024.
- One-time startup cost for dedicated enforcement is \$100,000.
- Annual ongoing dedicated enforcement cost is \$67,000 starting in 2024 and increasing 3% per year thereafter.

With these assumptions, the following table summarizes dedicated parking enforcement cashflow estimates through 2026.

Parking Enforcement Cash Flow

Year	Cost	Annual Revenue	Annual Surplus/(Shortfall)	Accumulated Balance
2020	\$ -	\$ 13,000	\$ 13,000	\$ 13,000
2021	\$ -	\$ 18,000	\$ 18,000	\$ 31,000
2022	\$ -	\$ 19,000	\$ 19,000	\$ 50,000
2023	\$ -	\$ 20,000	\$ 20,000	\$ 69,000
2024	\$ 175,000	\$ 23,000	\$ (152,000)	\$ (83,000)
2025	\$ 78,000	\$ 28,000	\$ (49,000)	\$(132,000)
2026	\$ 80,000	\$ 30,000	\$ (50,000)	\$(183,000)

As is illustrated by this table, with a \$50 monetary penalty assumption and current citation issuance projections, a dedicated parking enforcement program is not projected to cover all costs associated with the program. The program does not reach a cost neutral balance until over 5,500 citations per year (about 15 per day) are issued; which is almost four times the 2019 total tickets issued. This model does not account for additional revenue from permits issued under a Residential Parking Zone (RPZ) program or payment of the delinquency penalty. Additional context for costs and revenues is further detailed in the May 18th staff report.

Staff Recommendation on Penalty and Parking Enforcement

Based on a review of regional parking violation monetary penalties in other cities, historic parking citation data in the City, and estimated enforcement staff costs, staff continues to recommend the City parking violation monetary penalty be established at \$50 with a late payment penalty of \$25. These penalties are expected to provide revenue to support the cost for ticket processing and dedicated part time parking enforcement. This penalty would start on January 1, 2021 and funds received in excess of court administrative costs would accumulate for future use for one-time and on-going dedicated parking enforcement costs.

In development of the 2023/2024 biennial budget, staff intends to recommend funding a dedicated parking enforcement program to coincide with light rail opening, and after thorough review of additional data and information gathered in 2021/2022.

May 18th City Council Discussion

At the May 18th Council Meeting, Council discussed some concerns regarding the increased monetary penalty, late fee, and parking citations in general. Councilmember concerns (collectively or individually) can be generally summarized as follows:

- 1) The \$50 monetary penalty is regressive and impacts low income populations more heavily.
- 2) The \$50 monetary penalty may be too high, especially in considering that Seattle and Edmonds both have lower penalties. There was concern that business patrons would potentially be deterred and choose to take business elsewhere.
- 3) The \$25 late fee, at 50% of the overall penalty, is high. Those who live paycheck to paycheck may be unable to pay the ticket on time and would be further burdened by a late fee.
- 4) Parking management should support business and residential functions. Educational outreach, rather than punitive measures, should be a supplemental tool to incentivize business patronage, and improve quality of life for Shoreline residents.

In addition, Council recognized the value of parking enforcement, and offered the following comments:

- 1) Parking enforcement is an important public safety activity, and it also supports quality of life for Shoreline residents, businesses, and visitors. Various councilmembers recognized the need for dedicated enforcement in the future given the 2024 start of light rail service and station openings as well as increased density in the station areas.
- 2) Council also recognized the impact to the City's budget and the significant start-up and ongoing costs for a dedicated parking enforcement program.

Proposed Amendment

As part of this discussion, Councilmember Roberts requested that staff prepare an amendment to proposed Ordinance No. 889 to set the parking infraction penalty at \$30. The motion for this proposed amendment is as follows:

I move to amend the monetary penalty for a parking infraction in Section B of Exhibit A to Ordinance No. 889 from the amount of fifty dollars (\$50.00) to the amount of thirty dollars (\$30).

RESOURCE/FINANCIAL IMPACT

At the current penalty level, the City of Shoreline General Fund subsidizes parking infraction administrative costs by \$7 per ticket. The proposed \$50 monetary penalty is intended to cover the full Shoreline District Court administrative cost of \$27 per infraction and provide about \$14.50 per infraction as funding for dedicated parking enforcement (after a reduction for court adjustments to the penalty assessed and non-payment). Based on 2019 volumes, staff estimates that the penalty value over the administrative costs would generate an estimated \$18,000 in 2021 to support a future dedicated traffic enforcement program. The annual funding available for parking enforcement is expected to increase modestly each year with a jump when dedicated

parking enforcement starts and in 2024 with the opening of Sound Transit Lynwood Link service. Initially, revenue from the penalty will be accumulated by the City and used to support startup costs of dedicated parking enforcement in 2023/2024 budget.

RECOMMENDATION

Staff recommends that the City Council adopt proposed Ordinance No. 889, which amends chapter 10.05 SMC, the Model Traffic Ordinance, to set a minimum monetary penalty for parking violations at \$50, establish a \$25 delinquency penalty, correct two references to the WAC, remove inconsistent code provisions for vehicle impound administrative fees, and to provide for greater clarity in the SMC.

ATTACHMENTS

Attachment A: Ordinance No. 889

Attachment A, Exhibit A: Proposed Amendments to Chapter 10.05 SMC

ORDINANCE NO. 889

**AN ORDINANCE OF THE CITY OF SHORELINE, WASHINGTON,
AMENDING SHORELINE MUNICIPAL CODE CHAPTER 10.05 MODEL
TRAFFIC ORDINANCE AND ESTABLISHING TWO (2) EFFECTIVE
DATES.**

WHEREAS, Washington's Model Traffic Ordinance (MTO) is set forth in Chapter 308-330 of the Washington Administrative Code (WAC) and serves as a guide which local jurisdictions may adopt by reference or any part thereof as that jurisdiction's traffic laws; and

WHEREAS, the City of Shoreline initially adopted Chapter 10.05 SMC, the City's Model Traffic Ordinance, with amendments, in 1996 with the passage of Ordinance No. 70 and has amended it over the years, with the last amendment occurring in 2017 with the passage of Ordinance No. 803; and

WHEREAS, as authorized by WAC 308-330, the City has excluded sections of this WAC from its local traffic ordinance and has also added sections to reflect local circumstances; and

WHEREAS, Chapter 10.05 SMC establishes a monetary penalty for impounded vehicles but does not set forth any monetary penalties for parking violations, resulting in the penalty defaulting to the Washington State minimum of \$20.00; and

WHEREAS, the cost of the issuing and processing parking violations is in excess of this amount and, with the future light rail stations anticipated to increase parking violations, increasing the penalty will assist in cost recovery; and

WHEREAS, in addition, amendments to Chapter 10.05 SMC are necessary to provide clarity to the chapter and to reflect current practices in administering impoundment of vehicles; and

WHEREAS, adequate time is necessary for King County and the Shoreline Police to implement the increased penalty;

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SHORELINE,
WASHINGTON DO ORDAIN AS FOLLOWS:**

Section 1. Amendment – SMC Chapter 10.05 Model Traffic Ordinance. Chapter 10.05 is amended as set forth in Exhibit A to this Ordinance.

Section 2. Corrections by City Clerk or Code Reviser. Upon approval of the City Attorney, the City Clerk and/or the Code Reviser are authorized to make necessary corrections to this Ordinance, including the corrections of scrivener or clerical errors; references to other local, state, or federal laws, codes, rules, or regulations; or ordinance numbering and section/subsection numbering and references.

Section 3. Severability. Should any section, paragraph, sentence, clause or phrase of this Ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this Ordinance be preempted by state or federal law or regulation, such decision or preemption shall not affect the validity of the remaining portions of this Ordinance or its application to other persons or circumstances.

Section 4. Publication and Effective Dates.

A. A summary of this Ordinance consisting of its title shall be published in the official newspaper of the City.

B. Section A of Exhibit A to this Ordinance shall be effective five (5) days after publication.

C. Section B of Exhibit A to this Ordinance shall take effect at 12:01 am Local Time, January 1, 2021.

PASSED BY THE CITY COUNCIL ON JUNE 1, 2020

Mayor Will Hall

ATTEST:

APPROVED AS TO FORM:

Jessica Simulcik Smith
City Clerk

Julie Ainsworth-Taylor
Assistant City Attorney

Publication Date: _____, 2020
Effective Date of Exhibit A, Section A: _____, 2020
Effective Date of Exhibit A, Section B: _____, 2021

EXHIBIT A TO ORDINANCE NO. 889

SECTION A – Effective five (5) days after publication of Ordinance

SMC 10.05.030 is amended as follows:

SMC 10.05.030 MTO amendments.

A. WAC 308-330-406 is amended to read as follows:

WAC 308-330-406 RCW sections adopted – Abandoned, unauthorized, and junk vehicle tow truck operators.

The following sections of the Revised Code of Washington (RCW) pertaining to abandoned, unauthorized, and junk vehicle tow truck operators as now or hereafter amended are hereby adopted by reference as a part of this chapter in all respects as though such sections were set forth herein in full:

RCW

- 46.55.020 Registration required – Penalty.
- 46.55.025 Registration or insurance required—Penalty.
- 46.55.035 Prohibited acts—Penalty.
- 46.55.037 Compensation for private impounds.
- 46.55.040 Permit required—Inspections of equipment and facilities.
- 46.55.050 Classification of trucks—Marking requirements—Time and place of inspection—Penalty.
- 46.55.060 Business location—Requirements.
- 46.55.063 Fees, schedules, contracts, invoices.
- 46.55.070 Posting requirements—Exception.
- 46.55.075 Law enforcement impound—Required form, procedures.
- 46.55.080 Law enforcement impound, private impound—Master log—Certain associations restricted.
- 46.55.085 Law enforcement impound—Unauthorized vehicle in right-of-way.
- 46.55.090 Storage, return requirements—Vehicles, personal belongings—Combination endorsement for tow truck drivers—Viewing impounded vehicle.
- 46.55.100 Impound notice—Abandoned vehicle report—Owner information, liability—Disposition report.
- 46.55.105 Responsibility of registered owner—Buyer and seller remedies.
- 46.55.110 Notice to legal and registered owners.
- 46.55.130 Notice requirements—Public auction—Accumulation of storage charges.
- 46.55.140 Operator's lien, deficiency claim, liability.
- 46.55.150 Vehicle transaction file.
- 46.55.160 Availability of records, equipment, and facilities for audit and inspection.
- 46.55.170 Complaints, where forwarded.
- 46.55.230 Junk vehicles—Removal, disposal, sale—Penalties—Cleanup restitution payment.
- 46.55.240 Local ordinances – Requirements.

~~4B.~~ RCW 46.55.010 Towing and Impoundment: Definitions is adopted in full with the following amendments to subsections ~~(4-5)~~ and ~~(13-14)~~:

~~(4 5)~~ “Junk vehicle” means a vehicle certified under RCW 46.55.230 as meeting at least three of the following requirements:

- a) Is three years old or older;
- b) Is extensively damaged, such damage including but not limited to any of the following: A broken window or windshield, or missing wheels, tires, motor, or transmission;
- c) Is apparently inoperable including a condition which makes the vehicle incapable of being operated legally on a public highway;
- d) Has an approximate fair market value equal only to the approximate value of the scrap in it;

~~(13 14)~~ “Unauthorized vehicle” means a vehicle that is subject to impoundment after being left unattended in one of the following public or private locations for the indicated period of time:

Subject to removal after:

(a) Public locations:

- (i) Constituting an accident or a traffic hazard as defined in RCW 46.55.113 Immediately
- (ii) On a highway and tagged as described in RCW 46.55.085 24 hours
- (iii) In a publicly owned or controlled parking facility, properly posted under RCW 46.55.070 Immediately
- (iv) Vehicles used for human habitation under RCW 46.61.570(5) as adopted in subsection (B)(1) of this section 24 hours
- (v) Failing to displaying registration tabs properly mounted in accordance with RCW 46.16.240, 46.16.047, 46.16.160, and WAC 308-96A-295 and in compliance with RCW 46.55.113 as adopted in subsection (A)(2) of this section 24 hours

(b) Private locations:

- (i) On residential property Immediately
- (ii) On private, nonresidential property, properly posted under RCW 46.55.070 Immediately
- (iii) On private, nonresidential property, not posted 24 hours

	Subject to removal after:
<u>a. Public Locations</u>	
<u>i. Constituting an accident or a traffic hazards as defined in RCW 46.55.113</u>	<u>Immediately</u>
<u>ii. On a highway and tagged as described in RCW 46.55.085</u>	<u>24 Hours</u>
<u>iii. In a publicly owned or controlled parking facility, properly posted under RCW 46.55.070</u>	<u>Immediately</u>
<u>iv. Vehicles used for human habitation under RCW 46.61.570(5) as adopted in subsection E of this section</u>	<u>24 hours</u>
<u>v. Failing to display registration tabs properly mounted in accordance with RCW 46.16.240, 46.16.047, 46.16.160, and WAC 308-96A-295, and in compliance with RCW 46.55.113 as adopted in subsection C of this section</u>	<u>24 hours</u>
<u>b. Private Locations</u>	
<u>i. On private residential property</u>	<u>Immediately</u>
<u>ii. On private, non-residential property, properly posted under RCW 46.55.070</u>	<u>Immediately</u>
<u>iii. On private, non-residential property, not posted</u>	<u>24 hours</u>

2 C. RCW 46.55.113 Towing and Impoundment: Removal by police officer - Definition is adopted in full with the following amendment to subsection (2):

(2) In addition, a police officer may take custody of a vehicle, at ~~his or her~~ their discretion, and provide for its prompt removal to a place of safety under any of the following circumstances:

- (a) Whenever a police officer finds a vehicle standing upon the roadway in violation of any of the provisions of RCW 46.61.560, the officer may provide for the removal of the vehicle or require the driver or other person in charge of the vehicle to move the vehicle to a position off the roadway;
- (b) Whenever a police officer finds a vehicle unattended upon a highway where the vehicle constitutes an obstruction to traffic or jeopardizes public safety;
- (c) Whenever a police officer finds an unattended vehicle at the scene of an accident or when the driver of a vehicle involved in an accident is physically or mentally incapable of deciding upon steps to be taken to protect his or her property;
- (d) Whenever the driver of a vehicle is arrested and taken into custody by a police officer;
- (e) Whenever a police officer discovers a vehicle that the officer determines to be a stolen vehicle;

- (f) Whenever a vehicle without a special license plate, card, or decal indicating that the vehicle is being used to transport a disabled person under RCW 46.16.381 is parked in a stall or space clearly and conspicuously marked under RCW 46.61.581 which space is provided on private property without charge or on public property;
- (g) Upon determining that a person is operating a motor vehicle without a valid driver's license in violation of RCW 46.20.005 or with a license that has been expired for ninety days or more;
- (h) When a vehicle is illegally occupying a truck, commercial loading zone, restricted parking zone, bus, loading, hooded-meter, taxi, street construction or maintenance, or other similar zone where, by order of the director of transportation or chiefs of police or fire or their designees, parking is limited to designated classes of vehicles or is prohibited during certain hours, on designated days or at all times, if the zone has been established with signage for at least twenty-four hours and where the vehicle is interfering with the proper and intended use of the zone. Signage must give notice to the public that a vehicle will be removed if illegally parked in the zone;
- (i) When a vehicle with an expired registration of more than forty-five days is parked on a public street; or
- (j) When the vehicle is a junk vehicle and is parked, wholly or partially, on a public right-of-way.

3. RCW 46.55.120 is adopted with the following addition of subsection (1)(f):

~~(1) Vehicles or other items of personal property registered or titled with the department are impounded by registered tow truck operators pursuant to RCW 46.55.080, 46.55.085, 46.55.113, or 9A.88.140 may be redeemed only under the following circumstances:~~

...

~~(f) To redeem vehicles impounded under RCW 46.20.342, RCW 46.61.502 and RCW 46.61.504, the redeeming individual must obtain an authorization to release from the Shoreline Police Department, verifying proof of ownership or authorization under subsection (a), liability insurance for the vehicle, a valid driver's license and payment of an administrative fee as established in Chapter 3.01 SMC. The administrative fee shall be for the purposes of offsetting City costs of implementing, enforcing and administering the impound.~~

B D. WAC 308-330-462 is amended to read as follows:

WAC 308-330-462 RCW sections adopted – Stopping, standing, and parking.

The following sections of the Revised Code of Washington (RCW) pertaining to vehicle stopping, standing, and parking as now or hereafter amended are hereby adopted by reference as a part of this chapter in all respects as though such sections were set forth herein in full:

RCW

46.08.185 Electric vehicle charge stations – Signage – Penalty.

46.61.560 Stopping, standing, or parking outside business or residence districts.

46.61.575 Additional parking regulations.

46.61.581 Parking spaces for persons with disabilities—Indication, access—Failure, penalty.

46.61.582 Free parking for persons with disabilities—Exceptions.

46.61.583 Special plate or card issued by another jurisdiction.

46.61.585 Winter recreational parking areas—Special permit required.

46.61.587 Winter recreational parking areas—Penalty.

46.61.590 Unattended motor vehicle—Removal from highway.

4. E. RCW 46.61.570 Rules of the Road: Stopping, standing, or parking prohibited in specified places—Reserving portion of highway prohibited is adopted in full with the following amendments to subsection (1)(a) and adding a new subsection, subsection (5):

(1) Except when necessary to avoid conflict with other traffic, or in compliance with law or the directions of a police officer or official traffic control device, no person shall:

(a) Stop, stand, or park a vehicle:

(i) On the roadway side of any vehicle stopped or parked at the edge or curb of a street;

(ii) On a sidewalk or street planting strip;

(iii) Within an intersection;

(iv) On a crosswalk;

(v) Between a safety zone and the adjacent curb or within thirty feet of points on the curb immediately opposite the ends of a safety zone, unless official signs or markings indicate a different no-parking area opposite the ends of a safety zone;

(vi) Alongside or opposite any street excavation or obstruction when stopping, standing, or parking would obstruct traffic;

(vii) Upon any bridge or other elevated structure upon a highway or within a highway tunnel;

(viii) On any railroad tracks;

(ix) In the area between roadways of a divided highway including crossovers;

(x) At any place where official signs prohibit stopping or parking;

(xi) On public right-of-way unless said vehicle displays current and valid registration tabs properly mounted in accordance with RCW ~~46.16.010(1)~~ 46.16A.030;

(xii) Within the same block to avoid a time limit regulation specified in that particular area, except as provided in RCW 46.61.582 and 46.61.583;

(xiii) Park a commercial vehicle which is more than 80 inches wide overall on any arterial, street or alley in residentially zoned areas as defined in SMC 20.40, Subchapter 1 or on streets or arterials abutting residentially zoned areas between the hours of midnight and six a.m.;

(xiv) Directly adjacent to a curbside, next to clearly visible residential mail boxes between 10:00 a.m. and 3:00 p.m. on any day of scheduled mail delivery by the United States Postal Service;

(xv) In public locations under circumstances which constitute an unauthorized vehicle;

(xvi) Within a bicycle lane, which is that portion of the paved section of the roadway designated by official signs or markings by the city for the movement of bicycles on the roadway;

(xvii) Within a transit priority lane designated by official signs or markings by the city as a bus only lane except to execute a right turn or to yield to emergency vehicles;
or

(xviii) Within a dedicated turn lane, which is that portion of the paved section of the roadway designated by official signs or markings by the city for the purpose of making a right or left turn at an intersection or to a side road; and

(5) It shall be unlawful to use a vehicle for human habitation on or in any public right-of-way or parking area. "Human habitation" means the use of a vehicle for sleeping, setting up housekeeping or cooking.

SECTION B – Effective at 12:01 am Local Time, January 1, 2021

SMC 10.05.035 Penalties is amended as follows:

SMC 10.05.035 Penalties

~~Unauthorized vehicle as defined in RCW 46.55.010(13)(a)(v) and amended by SMC 10.05.030(A)(1) which are impounded by police shall be subject to a civil infraction not to exceed \$50.00.~~

Except for parking infractions under RCW 46.19.050, any person found to be in violation of any provision of this chapter shall be deemed to have committed a parking infraction and for each such violation shall be subject to a monetary penalty in the amount of fifty dollars (\$50.00).

Any person having been assessed a monetary penalty under this chapter shall pay that penalty in the time provided on the infraction citation/ticket or seek a hearing contesting the infraction. If the penalty is not paid in the time afforded, a twenty-five dollar (\$25.00) delinquency penalty shall be assessed.

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Discussion of the Project Status and Progress for the N 148 th Street Non-Motorized Bridge Project		
DEPARTMENT:	Public Works		
PRESENTED BY:	Department of Public Works Lea Bonebrake, Capital Projects Manager		
ACTION:	<input type="checkbox"/> Ordinance	<input type="checkbox"/> Resolution	<input type="checkbox"/> Motion
	<input checked="" type="checkbox"/> Discussion	<input type="checkbox"/> Public Hearing	

PROBLEM/ISSUE STATEMENT:

The 2019-2024 Capital Improvement Plan (CIP), adopted by Ordinance No. 841, includes the 148th Street Non-Motorized Bridge project. The project goal is to provide a non-motorized bridge to directly connect neighborhoods west of Interstate-5 with the future 145th Street/Shoreline South light rail station, which will in turn connect users to centers of employment, commerce and educational opportunities.

On February 27, 2017, Council approved the selection of the 148th Street Non-Motorized Bridge alignment as the preferred alignment, and authorized staff to initiate the design and pursue funding. The design of the bridge has been broken down into three project components: 1) West Trail Connection, 2) the Bridge Structure and 3) East Bridge Landing. A Type, Size and Location (TS&L) Report has been drafted to summarize the analysis and comparison of the concepts against City defined objectives for the project, including a recommendation to proceed to final design.

Tonight, staff is sharing the results of the TS&L report (Attachment A) and the project's stakeholder engagement process and events to date. Staff is also seeking Council direction on a preferred option that will then be advanced to 30% design and project delivery approach.

RESOURCE/FINANCIAL IMPACT:

This project is currently funded in the 2019-2024 CIP for schematic design. Since the time of CIP adoption, the City has secured additional grants that will fully fund design, Right-of-Way acquisition, and have partial funding for construction. A summary of current funding is shown below:

Summary of Project Costs:

DESIGN		
DESIGN COST	\$	2,894,491
CITY STAFF & OTHER RESOURCES	\$	350,000
CONTINGENCY (10%)	\$	300,000
SUBTOTAL	\$	3,544,491
RIGHT-OF-WAY		
ROW COST	\$	1,282,000
CONTINGENCY (10%)	\$	130,000
SUBTOTAL	\$	1,412,000
CONSTRUCTION		
CONSTRUCTION COST	\$	11,181,005
CONTINGENCY (40%)	\$	4,472,402
ADDED LAYDOWN COST	\$	584,929
SUBTOTAL	\$	16,238,336
CONSTRUCTION MANAGEMENT		
CM COST	\$	3,913,352
CITY STAFF & OTHER RESOURCES	\$	300,000
CONTINGENCY (10%)	\$	400,000
SUBTOTAL	\$	4,613,352
TOTAL EXPENDITURES	\$	25,808,179

Summary of Project Revenue:

DESIGN		
GENERAL FUND	\$	350,000
ROADS CAPITAL FUND	\$	150,000
STP NON-MOTORIZED	\$	2,055,000
ST SYSTEM ACCESS	\$	1,105,271
SUBTOTAL	\$	3,660,271
RIGHT-OF-WAY		
COUNTY LEVY	\$	1,412,000
SUBTOTAL	\$	1,412,000
CONSTRUCTION		
COUNTY LEVY	\$	2,388,000
ST SYSTEM ACCESS	\$	2,594,729
SUBTOTAL	\$	4,982,729
TOTAL REVENUE	\$	10,055,000
FUNDING GAP (EXPENDITURE- REVENUE)	\$	15,753,179

To date, the City has not secured funds required to fully fund the construction phase of the Project and may not be able to secure all construction funds prior to the opening of the Lynnwood Link Extension light rail project in 2024. Options and risks associated with the funding gap and project delivery options to address the funding gap and associated risks are discussed later in this staff report.

RECOMMENDATION

Staff is seeking Council direction or confirmation on the recommended design elements and approach for project funding and delivery. Specifically, staff is looking for confirmation on the following staff recommendations:

- Preferred Design Recommendations:
 - West Trail Connection – *Option 3: Full Build-Out (North)*
 - Bridge Structure – *Option 2: Tied Arch*
 - East Bridge Landing – *Option 3: Direct Ramp*
- Bridge Cover (Canopy) Recommendation:
 - Delay including a canopy in the design until later in the design process.
- Project Funding and Delivery Strategy Recommendation:
 - Continue with *Alternative 2.2C* – proceed with design to 30% with the intent of progressing to full design, property acquisition and construction of the east bridge landing.

Approved By: City Manager **DT** City Attorney **MK**

BACKGROUND

Interstate-5 (I-5) forms a barrier from the neighborhoods to the west of the interstate to the Sound Transit Shoreline South/145th Station to the east. The 148th Street Non-Motorized Bridge project will design a pedestrian/bike bridge spanning I-5 and connecting to the north-end light rail station plaza. Improvements will include integration with the station plaza area (east side of I-5) including ramps and stairs. West side landing improvements will include ramps and stairs, safe pedestrian and bicycle connections to 1st Avenue NE, and evaluation of the need for a drop-off/pick-up area.

A feasibility analysis of non-motorized crossing options to the Shoreline South/145th Station was conducted in 2016/2017 to determine the feasibility of a non-motorized bridge to connect the west side of I-5 to the Sound Transit station and east-side area. Based on the results of the feasibility study, Council adopted the 148th Street crossing as the preferred location. The cost estimate in the feasibility study was \$13,331,000. At the February 27, 2017 Council meeting, staff presented the [145th Street Station Access Non-Motorized Crossing Options Feasibility Analysis](#). The staff report for this discussion can be found at the following link: [February 27, 2017 Staff Report](#).

The 2019-2024 Capital Improvement Plan (CIP) included \$499,999 in funding to proceed with conceptual design of the 148th Non-Motorized Bridge project and continued coordination with Sound Transit. On June 24, 2019, the City Council authorized the City Manager to enter into a contract with KPFF, Inc. for the preliminary design services for the N 148th Street Non-Motorized Bridge project. The current contract with KPFF is to 30% design and environmental review. The staff report for the Council authorization to enter into this contract can be found at the following link: [June 24, 2019 Staff Report](#).

Since adoption of the CIP, this project has received a federal grant, via the USDOT Federal Highway Administration (FHWA) Surface Transportation Program (STP) to be applied to the design phase of the project. Funding has also been secured from regional sources in the form of Central Puget Sound Regional Transit Authority (Sound Transit) System Access Funds (SA), and from King County. The project is funded through final design, right-of-way (ROW) and partially into construction.

DISCUSSION

The design team has been tasked with exploring multiple options for how to construct the bridge crossing at N 148th Street while also providing a sensible connection to 1st Avenue NE on the west side of I-5, and to the new Shoreline South/145th Station on the east side. The findings and design information has been provided in the draft Type, Size and Location Report (TS&L), included as Attachment A. The following discussion will highlight major findings in the report.

Significant Project Elements

The draft TS&L Report identifies and evaluates three significant project elements: 1) West Trail Connection, 2) Bridge Structure, and 3) East Bridge Landing. Figure 1 below depicts the approximate project element boundaries:

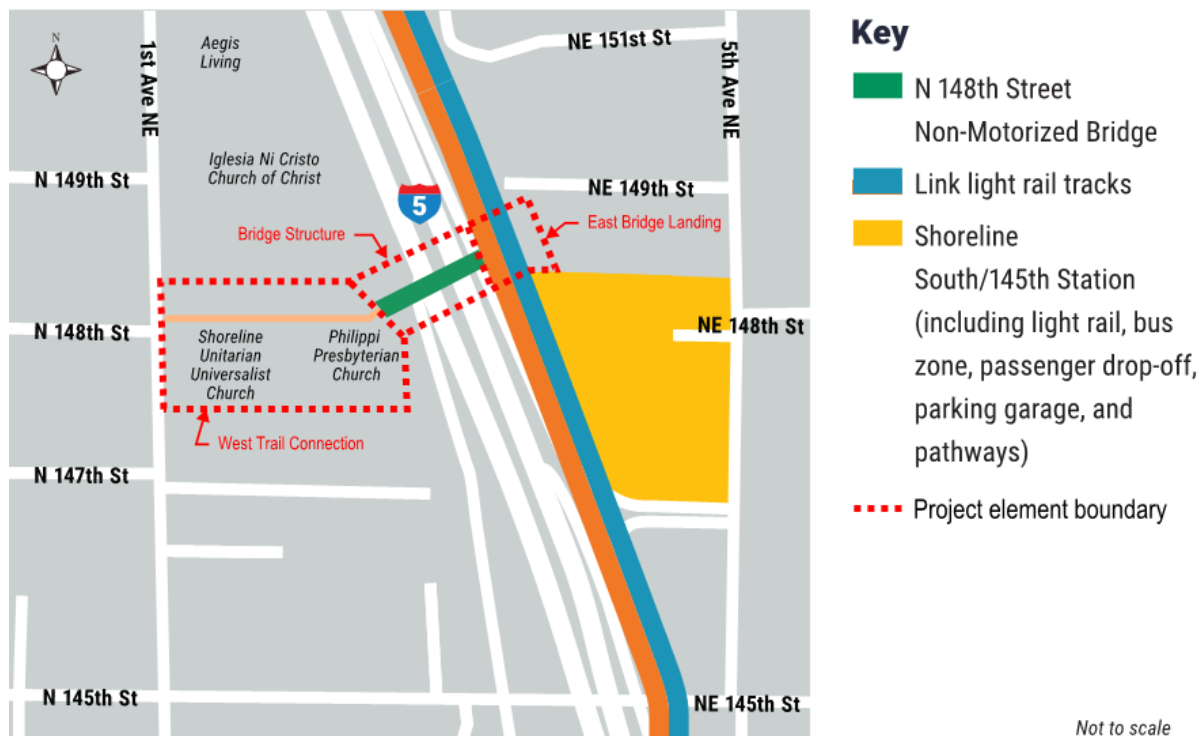


Figure 1: Significant Project Elements

Because each significant element has its own complexities and challenges, each are evaluated separately. The findings and design options for each are summarized below.

West Trail Connection

This is defined as the portion of the project that will complete the connection from the west bridge landing point to 1st Avenue NE. The alternatives identified in *Section 11: West Side Trail Alignments* of the attached draft TS&L Report are summarized as follows:

Option 1 – Minimal Build-Out

This alternative takes the approach of designing for the minimal impact, installing an 8-foot wide sidewalk for pedestrians and utilizing the existing drive lane for shared bicycle access. See Figures 11-2 and 11-3 in the attached draft TS&L Report for plan view and typical section.

Option 2 – Full Build-Out (South Alignment)

This alternative takes the approach of designing for the full shared-use pathway, providing a single 16-foot wide separated path that will serve both pedestrians and bicycles with a trail alignment that minimizes impact to the existing property line to the north. See Figures 11-4 and 11-5 in the attached draft TS&L Report for plan view and typical section.

Option 3 – Full Build-Out (North Alignment)

This alternative takes the approach of designing for the full shared-use pathway, providing a single 16-foot wide separated path that will serve both pedestrians and

bicycles with a trail alignment that is further north. See Figures 11-6 and 11-7 in the attached draft TS&L Report for plan view and typical section.

Bridge Structure

This is defined as the bridge structure that spans over I-5. All alternatives include a 16-foot wide bridge deck with pedestrian railing and 10-foot tall throw barriers. Variations that include canopies over the bridge spans are available and are depicted in *Section 12: Main Span Bridge Concepts* of the attached draft TS&L Report. All options are comparable in terms of safety and constructability, with the greatest variations appearing the form of aesthetics, cost and maintenance.

The alternatives identified in *Section 12: Main Span Bridge Concepts* of the attached draft TS&L Report are summarized as follows:

Option 1 – Combined Arch

This bridge alternative features paired major vertical arches spanning the freeway, suspending the deck with vertical hangers made of cable or steel sections. A secondary, smaller arch would cover a short span to grade on the west end.

Option 2 – Tied Arch

This bridge alternative features paired slanted pipe arches for the entire span, suspending the deck with diagonal cable hangers.

Option 3 – Truss

This bridge alternative is more traditionally type of robust structure, featuring a gently arched top chord and connecting truss members.

I-5 Median Center Pier Support

The design team also evaluated whether a center pier support placed in the I-5 median would present a cost saving opportunity for the project. The 2017 feasibility study recommended against the installation of a center pier in the I-5 median, and the findings in the attached draft TS&L report support that conclusion. Due to the clearance requirements of I-5 and the Sound Transit guideway, only low-profile bridge deck structures are feasible. For possible low-profile bridge structure options, the construction of a center pier will not appreciably change the structure type, therefore a center pier will not reduce project costs. Additional cost considerations associated with a pier in the median include existing stormwater infrastructure that will be impacted, likely requiring relocation; and significant traffic control/mitigation that will be necessary during construction. To avoid these cost impacts and meet the low-profile needs of the project, all proposed options are designed to be single span that can be picked up and placed quickly to minimize the impact to I-5.

East Bridge Landing

This is the connection from the east bridge landing point to the Trail Along the Rail and the Shoreline South/145th Station, characterized by a 16-foot wide pathway that generally ramps downgrade toward the station elevation.

The alternatives identified in *Section 13: East Side Landing Alternatives* of the attached draft TS&L Report are summarized as follows:

Option 1 – A-Frame Ramp

This alternative will feature a bridge landing situated equidistant between the two sets of light rail structure columns, and a direct connection to the Shoreline South/145th Station. This is the lowest cost alternative; however, it also provides the lowest amount of clearance and would require the steepest ramp grade of all east landing alternatives. The route is more circuitous than Option 3 and does not provide a direct ramp connection to the Trail Along the Rail.

Option 2 – Switchback Ramp

This alternative will feature a bridge landing further south with a switchback to reduce grade, and a direct connection to the Shoreline South/145th Station. This option provides the most overhead clearance, but also has the most circuitous route and is the highest cost alternative. Additionally, this option would require approval from WSDOT with part of the ramp structure constructed within the 84-foot and 94-foot Forward Compatibility Lines.

Option 3 – Direct Ramp

This alternative will feature a bridge landing that offers a direct connection to the Trail Along the Rail with at T-like intersection. This is the only alternative that provides a direct connection to the Trail Along the Rail and provides the shortest route to the Shoreline South/145th Station. Additionally, this option provides the gentler ramp grade, comparable to Option 2 and has more clearance than Option 1.

All options will require coordination with Sound Transit including modifications to their approved grading plans for the Trail Along the Rail and connection to the station.

Project Costs

The projected total project costs range between \$25-\$32 Million with escalation, assuming construction is completed in 2024. Detailed preliminary cost estimates are included in Appendix 4 of the TS&L Report. Escalated costs are summarized by element in Tables 1A and 1B below. Note that these costs do not include bridge options with canopies and costs for temporary staging/laydown areas during construction, which will be similar for all alternatives and are estimated at \$100,000 - \$300,000.

Table 1A – Project Element Summary

	WEST TRAIL CONNECTION	BRIDGE STRUCTURE	EAST BRIDGE LANDING
OPTION 1	<i>Minimum Build-Out</i>	<i>Combination Arch</i>	<i>A-Frame Ramp</i>
OPTION 2	<i>Full Build-Out (South)</i>	<i>Tied Arch</i>	<i>Switchback Ramp</i>
OPTION 3	<i>Full Build-Out (North)</i>	<i>Truss</i>	<i>Direct Ramp</i>

Table 1B – Escalated Project Element Cost Summary

	WEST TRAIL CONNECTION	BRIDGE STRUCTURE	EAST BRIDGE LANDING
OPTION 1	<i>\$3.5 M</i>	<i>\$15.7 M</i>	<i>\$4.2 M</i>
OPTION 2	<i>\$6.3 M</i>	<i>\$14.4 M</i>	<i>\$5.3 M</i>
OPTION 3	<i>\$4.1 M</i>	<i>\$17.5 M</i>	<i>\$4.4 M</i>

Note that there is a slight discrepancy between these costs and the costs shown in the draft TS&L Report. This is the result of a change in assumptions regarding escalation year and added cost for construction laydown.

Preferred Option Analysis

Staff's analysis and recommendations for each alternative are as follows:

West Trail Connection - Option 3: Full Build-Out (North)

Public feedback for these alternatives has been the most mixed for each of the significant elements. During the online open house for the project, only *Options 1 – Minimum Build-Out* and *Option 2 – Full Build-Out (South Alignment)* were presented for comment. Public input indicated a slight favorability for Option 2. Major concerns indicated were safety of mixing bicycles and vehicles in the shared drive lane, and potential liability concerns for the Unitarian and Philippi Churches, which are adjacent to the project area. There were also concerns expressed about impacted parking for both of the churches, and multiple comments regarding the preservation of significant trees.

To mitigate some of these concerns, *Option 3 – Full Build-Out (North Alignment)* has been presented and considered. Like Option 2, this alternative utilizes a multi-use trail, eliminating the mixing of bicycles and vehicles in the shared drive lane. However, unlike Option 2, this alternative shifts the trail alignment north to minimize impact to both the significant trees and the existing church parking. Without the need to mitigate parking, the projected cost is significantly reduced (\$6.3M to \$4.1M).

The challenges with Option 3 include an increased right-of-way requirement from the Church of Christ, who has been the least receptive to this project to this point. Additionally, due the existing utility easement associated with the cell tower on the SE corner of the Church of Christ parcel, this may require relocation of the existing utilities and/or acquiring the existing easement or risk additional costs in the future should the existing utilities need to be repaired or replaced.

Staff has determined that Option 3 presents a safe alternative at a reasonable cost and address most of the public concerns. Therefore, staff is recommending *Option 3 – Full Build-Out (North Alignment)* as the preferred option, as depicted in Figures 2 and 3 below.

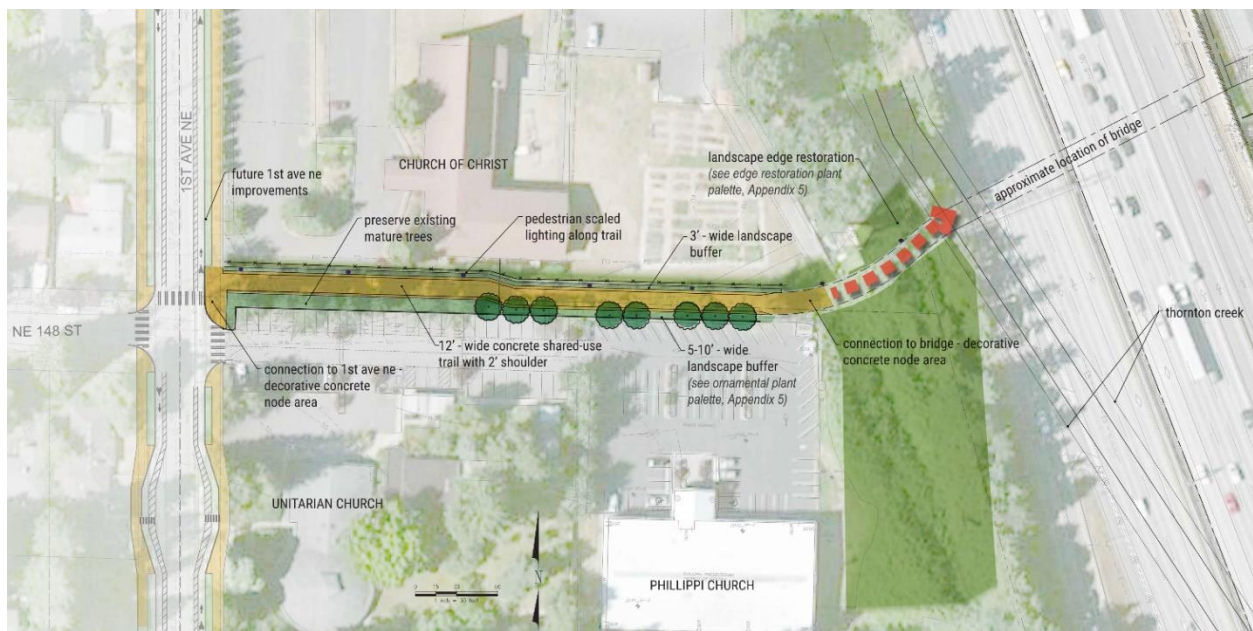


Figure 2: Option 3 – Full Build-Out (North) Plan View

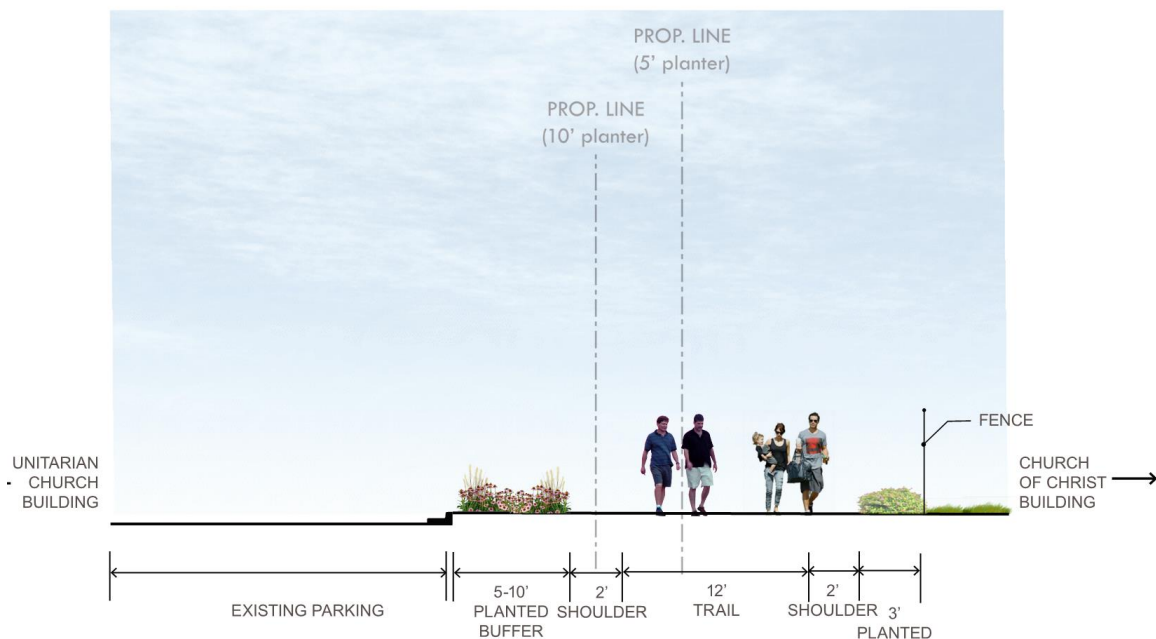


Figure 3: Option 3 – Full Build-Out (North) Typical Section

Bridge Structure - Option 2: Tied Arch

All bridge structure options are comparable in terms of safety and constructability, with the greatest variations appearing the form of aesthetics, cost and maintenance. All alternatives include the possibility of an overhead canopy, for an additional cost.

Public feedback indicated a clear preference for *Option 2 – Tied Arch* as the most visually attractive. Option 2 also has the lowest cost of all bridge structure alternatives, and with the fewest number of structural members thereby requiring the lowest maintenance costs.

Staff is recommending *Option 2 – Tied Arch* as the preferred option, as depicted in Figure 4 and Figure 5 below.



Figure 4: Option 2 – Tied Arch (View from I-5 Looking North)

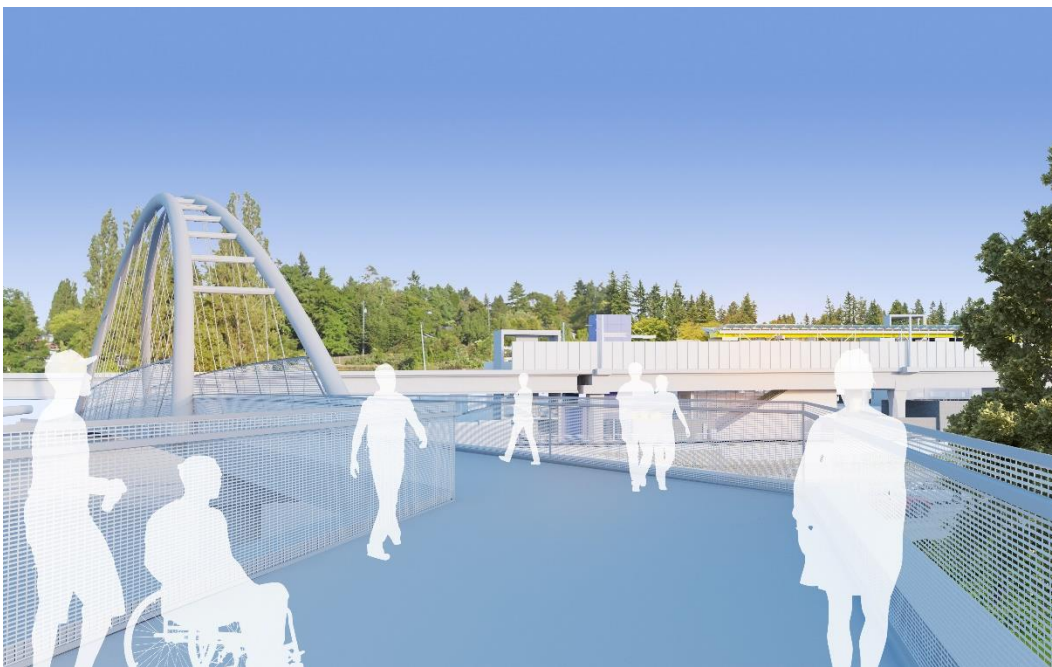


Figure 5: Option 2 – Tied Arch (View from Bridge Looking East)

East Bridge Landing - Option 3: Direct Ramp

Public feedback for the east bridge landing alternatives indicated a clear preference for *Option 3 – Direct Ramp*. Major concerns include a desire for non-circuitous connections to both the Trail Along the Rail and the Shoreline South/145th Station, overhead clearance and trail safety at pedestrian and bicycle mixing zones.

Staff has determined that Option 3 presents a safe alternative at a reasonable cost and addresses most of the public's concerns. Therefore, staff is recommending *Option 3 – Direct Ramp* as the preferred option, as depicted in Figure 6 below.



Figure 6: Option 3 – Direct Ramp Plan View

Preferred Option Summary

The staff recommended preferred options are summarized in Table 2A & Table 2B below.

Table 2A – Preferred Options

WEST TRAIL CONNECTION	BRIDGE STRUCTURE	EAST BRIDGE LANDING
<i>Option 3</i>	<i>Option 2</i>	<i>Option 3</i>
<i>Full Build-Out (North)</i>	<i>Tied Arch</i>	<i>Direct Ramp</i>

Table 2B – Preferred Option Cost Summary

	WEST TRAIL CONNECTION <i>OPTION 3</i>	BRIDGE STRUCTURE <i>OPTION 2</i>	EAST BRIDGE LANDING <i>OPTION 3</i>	TOTAL
ENGINEERING				
DESIGN COST	\$ 336,898	\$ 1,800,014	\$ 539,208	
SUBTOTAL W/ ESCALATED (4% TO 2022)	\$ 364,389	\$ 1,946,895	\$ 583,207	\$ 2,894,491
RIGHT OF WAY				
RIGHT OF WAY COST	\$ 1,140,975			
SUBTOTAL W/ ESCALATED (6% TO 2022)	\$ 1,282,000			\$ 1,282,000
CONSTRUCTION				
CONSTRUCTION COST	\$ 1,203,208	\$ 6,428,620	\$ 1,925,743	
CONTINGENCY (40%)	\$ 481,283	\$ 2,571,448	\$ 770,297	
LAYDOWN /STAGING AREA	\$ 100,000	\$ 300,000	\$ 100,000	
SUBTOTAL	\$ 1,784,491	\$ 9,300,068	\$ 2,796,040	
SUBTOTAL W/ ESCALATED (4% TO 2024)	\$ 2,087,601	\$ 10,879,764	\$ 3,270,971	\$ 16,238,336
CONSTRUCTION MGMT				
CONST MGMT COST	\$ 421,123	\$ 2,250,017	\$ 674,010	
SUBTOTAL W/ ESCALATION (4% TO 2024)	\$ 492,654	\$ 2,632,202	\$ 788,496	\$ 3,913,352
TOTAL	\$ 4,226,644	\$ 15,458,861	\$ 4,642,674	\$ 24,328,179

Note that there is a slight discrepancy between these costs and the costs shown in the draft TS&L Report. This is the result of a change in assumptions regarding escalation year and added cost for construction laydown.

Installation of a cover over the bridge is optional and is estimated at \$440,000. None of the options include coverings for the west or east landing areas. Staff also recommends a delay in including a canopy in the design until later in the design process.

Funding Strategy and Project Delivery Options

As noted previously, the design and right-of-way phases of the project are fully funded, and the construction phase is partially funded. The funding gap based on the recommendation is approximately \$16 million. While staff will continue to seek grant funding, there is a high probability that full funding will not be available in time to fully construct the bridge prior to light rail going into service in 2024. Staff has identified alternatives to proceed with the project while continuing to navigate funding challenges:

Alternative 1 – Proceed with Full Design with the Goal of Fully Funding by 2022

As mentioned above, securing full funding by 2022 is unlikely at this point based on the traditional grant cycles. Additionally, with the financial impacts from COVID-19, it seems unlikely that the State will reach agreement on a Transportation Package that

could provide the funding for this project. This alternative is considered High Risk as the probability of success is low. Should the City proceed to full design and right-of-way and then be unable to secure funding for construction, within the required timelines of 10-years for each phase, the City would need to return \$2,055,000 of federal funds. While there is less definitive guidance, it could be anticipated that other funding partners would want grant funds to be returned if the project is not built.

Alternative 2 – Progress the Design to 30% Design and Then Re-assess the Options for Proceeding

This alternative would include the following sub-options:

1. If full funding is secured, the project would continue to pursue full design, property acquisition and construction.
2. If full funding is not secured, one of the following would occur:
 - A. Pause the project at 30% design and continue to seek full funding. Anticipate property acquisition and construction to occur after light rail opens in 2025. Costs for right-of-way and construction are likely to increase.
 - B. Proceed to full design including property acquisition, then pause to seek full funding for construction. Anticipate that construction would occur after light rail opens in 2025. Costs for construction are likely to increase.
 - C. Proceed to full design including property acquisition and construct the east bridge landing. This landing is the most critical element to complete prior to light rail going into operation. Based on these estimates, current funding would cover this construction. Construction of the remaining project elements would occur after light rail opens in 2025. Costs for construction of the delayed elements are likely to increase the current estimates.
 - D. If full funding is not secured, stop the project at 30% design and return the required grant funds which would be approximately \$900,000.

With options 2A, 2B and 2C, during which time the project is delayed, costs for right-of-way and/or construction are likely to increase. A delay of four years is currently estimated to add between \$1 million to \$3 million to the total project cost.

Alternative 3 – Stop the Design Now at 10% and Return the Approximately \$300,000 Currently Expended from the Current Grant Funds

In this scenario, the bridge would not be built. This results in the lowest exposure to needing to return grant funds but also results in the bridge not being constructed.

Funding and Project Delivery Summary

Staff are recommending *Alternative 2.2C* – full design with property acquisition and construction of the east bridge landing. Provided the uncertainty of future funding, this alternative allows for partial construction with available sources, while allowing time for future funding pursuits. This alternative also removes some of the safety and financial risk of construction adjacent to active light rail by constructing critical bridge components in the immediate vicinity prior to it becoming active. Finally, this alternative

is also likely to have the smallest increase in cost of the first three sub-alternatives under Alternative 2.

STAKEHOLDER OUTREACH

Early in design development, the design team conducted several meetings with the adjacent churches and community groups to collect preliminary feedback and identify community concerns. Feedback from those meetings has been used to inform the design development for the options detailed in the TS&L Report. Common feedback included concerns with safety and impacted parking.

A virtual project online open house was held between April 10 through May 1, 2020 to present the significant project elements and collect feedback from the broader public. Translated materials were available in Spanish and Korean, with other languages available upon request. No additional requests were made.

To accompany the online open house, a webinar was conducted on April 23, 2020. The webinar included a live presentation with a real-time question and answer session immediately following. Collected feedback is summarized in Attachment B to this staff report. Data collected from this public outreach effort generally supports the staff recommendations for all three project elements.

Staff has held several meetings with all three churches to discuss the project and their issues or concerns with the project. Staff has also solicited input from Sound Transit to identify issues or concerns regarding the east side landing.

COUNCIL GOAL(S) ADDRESSED

This project supports 2018-2020 City Council Goal 3: “Continue preparation for regional mass transit in Shoreline.”

RESOURCE/FINANCIAL IMPACT

This project is currently funded in the 2019-2024 CIP for schematic design. Since the time of CIP adoption, the City has secured additional grants that will fully fund design, Right of Way Acquisition, and have partial funding for construction. A summary of current funding is shown below:

Summary of Project Costs:

DESIGN		
DESIGN COST	\$	2,894,491
CITY STAFF & OTHER RESOURCES	\$	350,000
CONTINGENCY (10%)	\$	300,000
SUBTOTAL	\$	3,544,491
RIGHT OF WAY		
ROW COST	\$	1,282,000
CONTINGENCY (10%)	\$	130,000
SUBTOTAL	\$	1,412,000
CONSTRUCTION		
CONSTRUCTION COST	\$	11,181,005
CONTINGENCY (40%)	\$	4,472,402
ADDED LAYDOWN COST	\$	584,929
SUBTOTAL	\$	16,238,336
CONSTRUCTION MANAGEMENT		
CM COST	\$	3,913,352
CITY STAFF & OTHER RESOURCES	\$	300,000
CONTINGENCY (10%)	\$	400,000
SUBTOTAL	\$	4,613,352
TOTAL EXPENDITURES	\$	25,808,179

Summary of Project Revenue:

DESIGN		
GENERAL FUND	\$	350,000
ROADS CAPITAL FUND	\$	150,000
STP NON-MOTORIZED	\$	2,055,000
ST SYSTEM ACCESS	\$	1,105,271
SUBTOTAL	\$	3,660,271
RIGHT OF WAY		
COUNTY LEVY	\$	1,412,000
SUBTOTAL	\$	1,412,000
CONSTRUCTION		
COUNTY LEVY	\$	2,388,000
ST SYSTEM ACCESS	\$	2,594,729
SUBTOTAL	\$	4,982,729
TOTAL REVENUE	\$	10,055,000
FUNDING GAP (EXPENDITURE- REVENUE)	\$	15,753,179

To date, the City has not secured funds required to fully fund the construction phase of the Project and may not be able to secure all construction funds prior to the opening of the Lynnwood Link project in 2024. Options and risks associated with the funding gap are discussed above in under Funding Strategy and Project Delivery Options on page 12.

RECOMMENDATION

Staff is seeking Council direction or confirmation on the recommended design elements and approach for project funding and delivery. Specifically, staff is looking for confirmation on the following staff recommendations:

- Preferred Design Recommendations:
 - West Trail Connection – *Option 3: Full Build-Out (North)*
 - Bridge Structure – *Option 2: Tied Arch*
 - East Bridge Landing – *Option 3: Direct Ramp*
- Bridge Cover (Canopy) Recommendation:
 - Delay including a canopy in the design until later in the design process.
- Project Funding and Delivery Strategy Recommendation:
 - Continue with *Alternative 2.2C* – proceed with design to 30% with the intent of progressing to full design, property acquisition and construction of the east bridge landing.

ATTACHMENTS

Attachment A: Draft N 148th Non-Motorized Bridge Type, Size and Location Report
Attachment B: Online Open House Topline Summary



N 148th Non-Motorized Bridge

Bridge/Trail Type, Size, and Location Report

May 21, 2020 | Draft Report



Bridge/Trail Type, Size, and Location Report

May 21, 2020

Prepared for:

City of Shoreline
17500 Midvale Avenue North
Shoreline, WA 98133

Prepared by:

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Appendices

Appendix 1: West Side Trail Connection

Appendix 2: Main Span Bridge

Appendix 3: East Side Bridge Landing

Appendix 4: Project Cost

Appendix 5: Project Background Information and Meeting Notes

Appendix 6: Online Open House Report and Content

1. Executive Summary

BACKGROUND

In anticipation of the planned Sound Transit (ST) Lynnwood Link Light Rail Extension Project (LLE), the City of Shoreline (City) adopted a subarea plan in 2016 around the Shoreline South/145th Street Station. This plan encourages growth in the area surrounding the station by allowing denser development than what was previously permitted. With this increase in density comes a commensurate increase in both motorized and non-motorized traffic along with the potential for conflict between the two groups. As a means of mitigating these conflicts, the need for a separate, pedestrian/bicycle bridge and trail facility was identified in order to improve safety. This facility will provide an east-west connection across Interstate 5 (I-5) in order to better link the overall subarea as well as provide a direction connection for the neighborhoods west of I-5 to the light rail station.

In 2017, the City completed a feasibility study which examined multiple bridge and trail alignment alternatives with the goal of identifying a preferred alignment. These alternatives were all centered around the Shoreline South/145th Street station and were located as far south as NE 145th Street and as far north as NE 149th Street. The preferred alternative selected during this study was a bridge and trail alignment that aligned approximately with NE 148th Street. This alignment alternative was chosen to be carried forward into preliminary design. The first step in the preliminary design process was to develop this bridge and trail Type, Size and Location (TS&L) study.

STUDY OBJECTIVE

The purpose of this TS&L study is to identify design alternatives for the bridge and trail connections for the preferred alignment alternative established in the 2017 feasibility study. The TS&L analysis included tasks like civil and structural engineering, surveying, geotechnical explorations, urban design, landscaping, definition of permitting requirements, public involvement and establishment of project aesthetics.

The TS&L process developed multiple trail alignments, bridge types and landing alternatives. The development of these alternatives was largely driven by site constraints including vertical clearances to I-5 and to the light rail station structure, horizontal clearances for bridge foundation locations, existing utility locations, ROW requirements and other site features.

These alternatives were evaluated and compared with one another based on criteria established by the City and the design team which include: user safety and security, connectivity and travel times, ease of stakeholder approval, right-of-way (ROW), operations and maintenance, aesthetics and project costs. Input from key stakeholders received during project briefings also helped inform the selection of these criteria.

Broader public outreach activities that have been completed include project website updates, and the development of outreach materials (e.g. FAQs, fact sheets, folios). A public open house is planned and input received from the public will be incorporated into the final version of this report.

The bridge and trail alternatives are divided into three, distinct sections: West Side Trail Alignments, Bridge Main Span, and the East Side Landings. Multiple options were developed and evaluated for each of these sections. These options can be combined interchangeably to form a complete project.

WEST SIDE TRAIL ALIGNMENT RECOMMENDATIONS

Three west side trail alignment alternatives are presented in this report. Each alternative provides the necessary connection from 1st Avenue NE to the main bridge span. Each of these alternatives have benefits and trade-offs especially with regard to ease of stakeholder approval, right-of-way, user safety and security and project costs.

Based on the results of this TS&L evaluation and input from the general public through the online open house, Option 3 – Full Build-out North is the recommended preferred alternative for the west side trail alignment. This option best meets the established project criteria and received the most favorable feedback from the public.

BRIDGE MAIN SPAN RECOMMENDATIONS

Three main span bridge alternatives are presented in this report. These bridges meet the project design requirements, but differ primarily in their costs, aesthetic value and maintenance requirements.

Based on the results of this TS&L evaluation and input from the general public through the online open house, the tied-arch bridge is the recommended preferred alternative for the main span structure. While all bridges met the design criteria and were comparable in their cost, the tied-arch span received the most favorable feedback from the public.

EAST SIDE LANDING RECOMMENDATIONS

Three east side landing alternatives are presented in this report. These landings provide a connection from the bridge to the Shoreline South/145th Street Station, the trail-along-the-rail and the surrounding neighborhood. These alternatives vary primarily in their connectivity, vertical clearance to the overhead light rail structure and costs.

Based on the results of this TS&L evaluation and input from the general public through the online open house, Option 3 – Direct Ramp is the recommended preferred alternative for the east side landing. This option best meets the established project criteria and received the most favorable feedback from the public.

2. Introduction and Background

INTRODUCTION

In anticipation of the planned Sound Transit (ST) Lynnwood Link Light Rail Extension Project (LLE), the City of Shoreline (City) adopted a subarea plan in 2016 around the Shoreline South/145th Street light rail station. This plan encourages growth in the area surrounding the station by allowing denser development than what was previously permitted. With this increase in density comes a commensurate increase in both motorized and non-motorized traffic along with the potential for conflict between the two groups. As a means of mitigating these conflicts, the need for a separate, pedestrian and bicycle only facility was identified in order to improve safety. This facility will provide an east-west connection across Interstate 5 (I-5) in order to better link the overall subarea as well as provide a direction connection for the neighborhoods west of I-5 to the light rail station. In addition, this facility is intended to become an integral piece of the larger regional trail network which includes the Interurban and Burke Gilman Trails. Figure 2-1 shows project location in the context of the broader area.

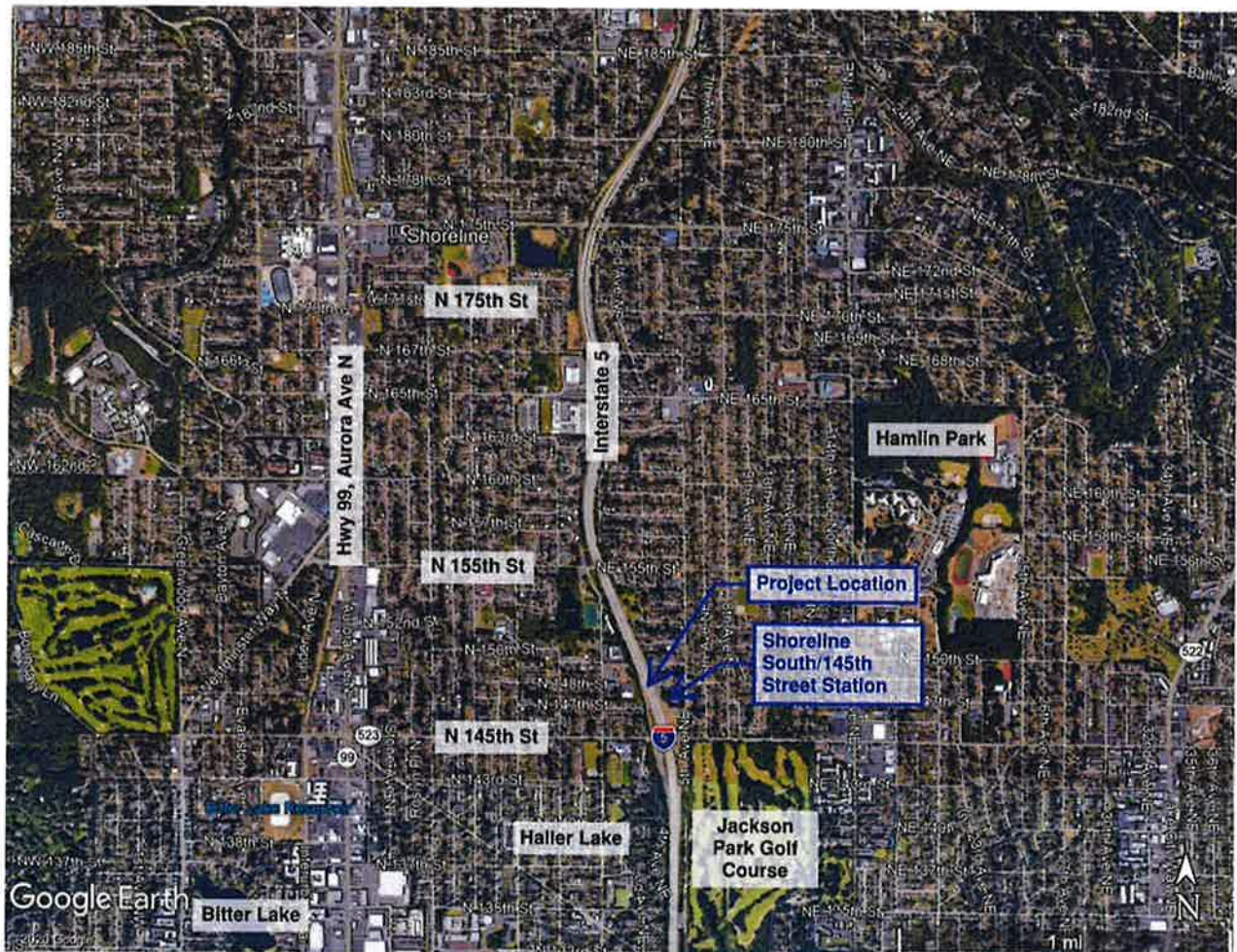


Figure 2-1: Project Vicinity Map

In support of this facility, the City completed a feasibility study in 2017 which examined multiple bridge and trail alignment alternatives with the goal of identifying a preferred alignment. As shown in Figure 2-2, these alternatives were all centered around the Shoreline South/145th Street Station and were located as far south as NE 145th Street and as far north as NE 149th Street. The preferred alternative selected during this study was a bridge and trail alignment that approximately aligned with NE 148th Street. This alignment alternative was chosen to be carried forward into preliminary design. The first step in the preliminary design process was to develop this bridge and trail Type, Size and Location (TS&L) study.

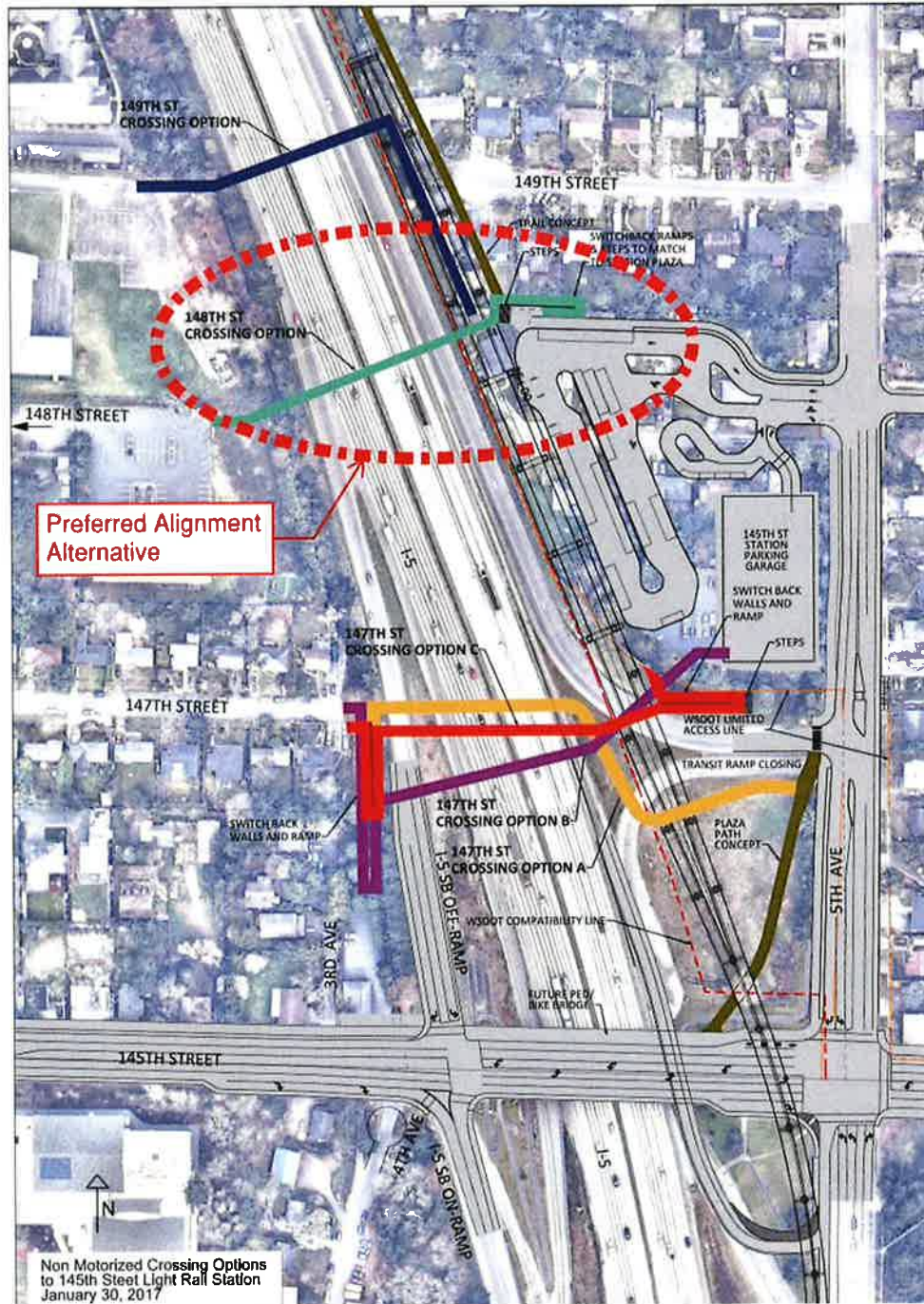


Figure 2-2: 2017 Feasibility Study Alignment Options

PROJECT SCOPE OF WORK

This report provides the results of the TS&L study for the trail/bridge alignment beginning at 1st Avenue NE in the vicinity of N 148th Street, crossing over I-5 and terminating near the north end of the Shoreline South/145th Street station. The TS&L phase includes the study of trail locations and alignments, bridge types and sizes, project aesthetics, and defines permitting requirements related to the project.

The following tasks were accomplished for the TS&L study:

- General tasks
 - Obtain and review existing project related information and historic documents
 - Perform site visits to evaluate existing site conditions
- Environmental permitting tasks:
 - Estimate locations of wetlands, wildlife habitat and cultural/historic resources in the project area
 - Identify the permits and environmental documentation that is anticipated for the project
 - Create a schedule for obtaining the identified permits and completing environmental documents
- Geotechnical tasks:
 - Identify and evaluate the general geologic conditions in the project area
 - Provide preliminary recommendations regarding potential bridge foundations and embankment construction
 - Provide geotechnical design criteria for the bridge, including seismic design requirements and liquefaction hazard analysis (if applicable)
- Urban design tasks:
 - Develop urban design alternatives for the bridge trail approaches and landings
 - Develop landscaping alternatives
 - Evaluate pedestrian safety for bridge trail approaches and landings
- Civil engineering and survey design tasks:
 - Prepare project basemap incorporating field topographical survey data, boundary survey including easements and underground utility locations.
 - Develop trail alignment plan and profiles alternatives including street connections
 - Develop concept utility relocation plans, as necessary
 - Determine drainage design concepts
 - Identify clearances to I-5, ST's aerial guideway structures, property lines and other site features
- Bridge engineering and architectural tasks:
 - Determine bridge span and foundation locations

- Perform concept level structural analysis
- Determine bridge component types and sizes
- Public outreach tasks:
 - Perform initial outreach to stakeholders
 - Gather input from stakeholders and incorporate into alternatives evaluation, as necessary

PROJECT LOCATION AND EXISTING CONDITIONS

The project was divided into two distinct segments which are divided by I-5. These segments are referred to as the western trail connection and the eastern landing. The main span bridge crossing provides a connection over I-5 which joins these two segments.

Project Boundaries

For the western trail connection, the project boundaries are as follows:

- Northern Boundary – N 149th Street
- Southern Boundary – N 147th Street
- Eastern Boundary – Interstate 5
- Western Boundary – 1st Avenue NE

For the eastern bridge landing, the project boundaries are as follows:

- Northern Boundary – NE 149th Street
- Southern Boundary – Shoreline South/145th Street Station Plaza
- Eastern Boundary – Private Residences north of Shoreline South/145th Street Station Plaza
- Western Boundary – Interstate 5

These boundaries are shown in red in Figure 2-3.

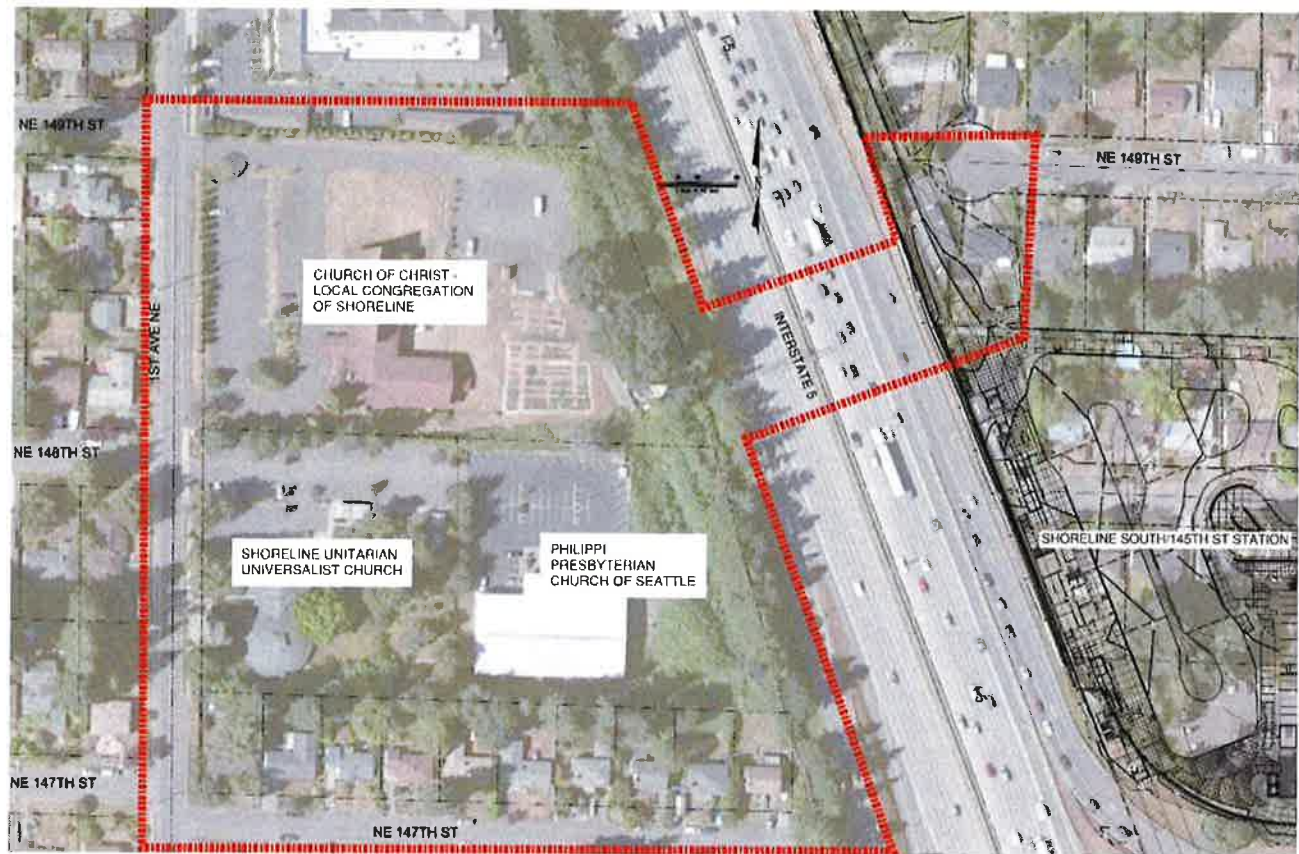


Figure 2-3: Project Boundaries

City Street Connections

Key access points to the western trail connection are 1st Ave NE, N 148th Street, N 149th Street and N 147th Street. Figure 2-4 through Figure 2-7 show the existing conditions of these street connections at the time of this report.



Figure 2-4: Existing Condition of 1st Avenue NE, Looking North



Figure 2-5: Existing Condition of N 148th Street, Looking West



Figure 2-6: Existing Condition of N 149th Street, Looking West



Figure 2-7: Existing Condition of N 147th Street, Looking West

Key access points to the eastern bridge landing to be considered are NE 149th Street, the Shoreline South/145th Street Station and the Trail Along the Rail (TAR). Both the station and TAR were under construction during the time of the report and are not shown. Figure 2-8 shows the existing condition of NE 149th Street.



Figure 2-8: Existing Condition of Northeast 149th Street Looking West

Private Property

Private properties to be considered throughout the TS&L process include:

- Parcel 288170-0340: Church of Christ – Local Congregation of Shoreline, 14800 1st Ave NE



Figure 2-9: Church of Christ

This parcel currently houses the Church of Christ – Local Congregation of Shoreline which consists of a single building and surface parking lots. There is a privately owned cell phone tower at the southeast corner of the parcel (see utilities section for further discussion). There are existing underground utility and access easements that allow for the operation and maintenance of this facility.

- Parcel 288170-0342: Shoreline Unitarian Church, 14724 1st Ave NE



Figure 2-10: Unitarian Universalist Church

This parcel currently houses the Shoreline Unitarian Universalist Church which consists of the main church building and several outbuildings. There are several easements on this property including an access and utility easement to the Philippi Presbyterian Church immediately to the east.

- Parcel 288170-0343: Philippi Presbyterian Church, 14734 1st Ave NE



Figure 2-11: Philippi Presbyterian Church

This parcel currently houses the Philippi Presbyterian Church of Seattle which consists of a single building and surface parking lots. As mentioned previously, the parcel has an access and utility easement on Parcel 288170-0342 immediately to the west.

At the eastern landing, many of the private parcels that might have been impacted by this project have been acquired by Sound Transit for the construction of the Shoreline South/145th Street station. These properties will be turned over to the City upon completion of construction.

Utilities

There are numerous, known utilities in the project area that could be impacted by this project. Below is a description of only the major utilities which represent a significant challenge and/or cost should they be impacted or need to be relocated.

Western Trail Connection Utilities:

As shown in Figure 2-4, there are high voltage transmission lines along the western edge of 1st Ave which are owned by Seattle City Light. As shown in Figure 2-12, there is a utility pole located near the northwest corner of the Unitarian parcel, but within City ROW, that carries multiple fiber optic lines and power. It appears that this pole serves to feed the cell phone tower located in the southeast corner of the Church of Christ parcel.



Figure 2-12: Existing Utility Pole near Northwest Corner of Unitarian Parcel

As shown in Figure 2-14, there is a cell phone tower located in the southeast corner of the Church of Christ parcel. This cell phone tower is owned and operated by SBA Communications which leases their facilities to T-

Mobile and Sprint. At the time of this report, right-of-entry had not been granted by the Church of Christ property owners to gather survey on this parcel. However, based on information contained within the title report for this property, there is a utility easement that runs along the southern boundary of the parcel which connects to the tower location. It is assumed that the power and fiber optic lines that are visible on the aforementioned utility pole are buried within this easement. Figure 2-13 shows the location of the utility easement based on legal description contained within the title report.



Figure 2-13: Utility Easements on Church of Christ Parcel



Figure 2-14: Cell Phone Tower at Southeast Corner of the Church of Christ Parcel

The only significant drainage facility is a 36-inch diameter corrugated metal pipe located at northern edge of the Unitarian parcel that acts as detention and/or flow control for both the Unitarian parcel.

WSDOT ROW:

WSDOT has multiple utilities located within their ROW. These include:

- Intelligent Transportation Systems (ITS): There are several buried ITS conduits located within shoulder of southbound I-5.
- Storm Drainage: There is a storm drain located within the median of I-5. A similar facility is also located in the shoulder of northbound I-5.
- Electrical: There is buried power located within the shoulder of both northbound and southbound I-5.

Eastern Bridge Landing:

The only significant utilities located within the eastern bridge landing are storm drainage facilities associated with the Shoreline South/145th Street Station. At the time of this report, these facilities have yet to be constructed. All other existing utilities have already been relocated in anticipation of station construction.

Thornton Creek

Within the project area, there is a section of Thornton Creek within WSDOT ROW that runs in a north-south direction and essentially parallels southbound I-5. As shown in Figure 2-15, the creek enters two, 6-foot diameter pipe culverts before it passes below the freeway. The culvert locations are based on as-built plans which were also confirmed during the field survey. This section of Thornton Creek has been identified on WSDOT's Fish Passage Uncorrected Barriers Injunction list. At the time of this report, WSDOT had no work

planned or budgeted for fish passage improvements to this section of Thornton Creek in the 2019-2021 state biennium. Design and construction of the pedestrian bridge will need to consider and not preclude future fish passage improvements to this section of Thornton Creek.

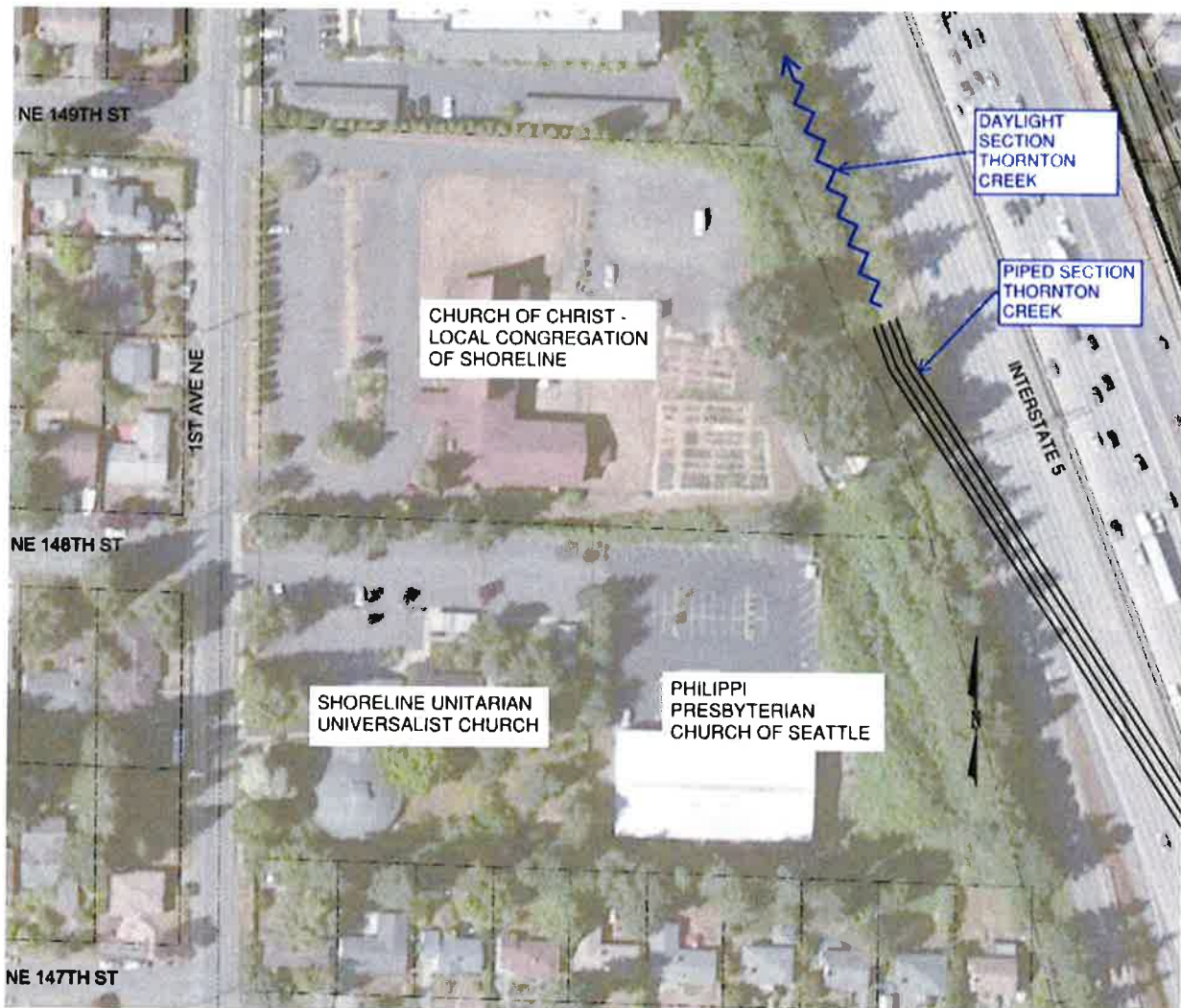


Figure 2-15: Location of Thornton Creek within Project Area

3. Design Criteria

DESIGN CODES AND REFERENCES

Table 3-1 through Table 3-6 provide lists of design codes and references to be used for all design and construction. The list is not comprehensive; other applicable codes and references may be required as the design develops.

When conflicts are identified between the City of Shoreline Engineering Development Manual and other references, they will be addressed on a case-by-case basis.

Table 3-1: Pedestrian and Bicycle Facilities Codes and References

Pedestrian and Bicycle Facilities Codes and References	
•	Governing Codes
○	City of Shoreline 2020 Engineering Development Manual
•	Referenced Codes
○	AASHTO A Policy on Geometric Design of Highways and Streets, 7th Edition, 2018
•	AASHTO Guide for the Development of Bicycle Facilities, 4th Edition, 2012
•	NACTO Urban Bikeway Design Guide
•	2010 American with Disabilities Act Standards for Accessible Design
•	Public Rights of Way Accessibility Guidelines (PROWAG)
•	WSDOT Design Manual M22-01, September 2019
•	WSDOT Local Agency Guidelines Manual M36-63, June 2018

Table 3-2: Bridge and Structures Codes and References

Bridge and Structures Codes and References	
•	Governing Codes
○	AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges, 2nd Edition, December 2009, with Interim Revisions. (AASHTO Pedestrian).
○	AASHTO Guide Specifications for LRFD Seismic Bridge Design, 2nd Edition, 2011, with Interim Revisions
○	AASHTO LRFD Bridge Design Specifications, Eighth Edition, 2017, with Interim Revisions
•	Referenced Codes
○	AASHTO LRFD Bridge Construction Specifications, 3rd Edition, 2010, with Interim Revisions
○	AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, First Edition, 2015. (AASHTO Signs)
○	WSDOT Bridge Design Manual (LRFD) M23-50.18, June 2018. (WSDOT BDM)
○	Bridge Welding Code: AASHTO/ AWS D1.5M/D1.5: 2016 An American National Standard, 7th Edition with Interims through 2019.
○	IBC – International Building Code, International Code Council, 2018.
○	ASCE/SEI 7 - Minimum Design Loads for Buildings and Other Structures, ASCE/SEI 7 Standards Committee, 2016.
○	ACI 318 – Building Code Requirements for Structural Concrete, ACI Committee 318, 2014
○	AISC 360 – Specification for Structural Steel Buildings, American Institute of Steel Construction, 15th Edition, 2016.
○	Structural Welding Code – Steel: AASHTO/AWS D.1M/D1.1M, 2015.

Table 3-3: Stormwater Codes and References

Stormwater Codes and References	
• Governing Codes	
○ City of Shoreline 2020 Engineering Development Manual	
○ 2014 Department of Ecology Stormwater Management Manual for Western Washington	
• Referenced Codes	
○ 2012 Stormwater Manual for Western Washington, as Amended in December 2014	
○ 2012 Low Impact Technical Guidance Manual for Puget Sound	
○ King County Surface Water Design Manual	

Table 3-4: Roadway Codes and References

Roadway Codes and References	
• Governing Codes	
○ City of Shoreline 2020 Engineering Development Manual	
○ City of Shoreline Municipal Code (SMC)	
○ City of Shoreline Transportation Master Plan (TMP)	
○ City of Shoreline Comprehensive Plan	
• Referenced Codes	
○ AASHTO A Policy on Geometric Design of Highways and Streets, 7th Edition, 2018	
○ NACTO Urban Street Design Guide	
○ WSDOT Design Manual M22-01, September 2019	
○ WSDOT Local Agency Guidelines Manual M36-63, June 2018	
○ Institute of Transportation Engineers, Urban Street Geometric Design Handbook	
○ FHWA Small Town and Rural Multimodal Networks (STAR) Guide	
○ Manual on Uniform Traffic Control Devices (MUTCD)	

Table 3-5: Lighting Codes and References

Lighting Codes and References	
• Governing Codes	
○ City of Shoreline 2020 Engineering Development Manual	
• Referenced Codes	
○ Sound Transit Design Criteria Manual:	
▪ Chapter 21, Lighting	
○ IES RP-8-18 Recommended Practice for Design and Maintenance of Roadway and Parking Facility Lighting	
○ WSDOT Design Manual, Chapter 1040 Illumination	
○ CPTED Guidelines	

Table 3-6: Landscape Codes and References

Landscape Codes and References	
•	Governing Codes
	<ul style="list-style-type: none">○ Landscaping within City of Shoreline right-of-way:<ul style="list-style-type: none">▪ City of Shoreline 2019 Engineering Development Manual: Chapter 15.2, Landscaping○ Landscaping on private property:<ul style="list-style-type: none">▪ Shoreline Municipal Code, 20.50:<ul style="list-style-type: none">• General standards: SMC 20.50.520• Mature tree retention and replacement: SMC 20.50.350-20.50.370• Landscaping along interior lot lines: SMC 20.50.490• Internal landscaping for parking area (if required due to reconfiguring existing○ Landscaping within WSDOT right-of-way:<ul style="list-style-type: none">▪ 2017 Roadside Manual: Chapter 800, Vegetation and Chapter 820, Irrigation○ Landscaping within Sound Transit right-of-way:<ul style="list-style-type: none">▪ Sound Transit Design Criteria Manual: Chapter 9.4, Station and Facility Requirements and Chapter 10.4, Landscaping Requirements

HORIZONTAL CLEARANCE REQUIREMENTS

Interstate 5 – WSDOT

The minimum horizontal clearances described below are shown graphically in Appendix 5, Design Criteria and Constraints.

- During construction:
 - Without barrier protection, the minimum work zone clear zone distance is 30 feet from the traveled way per WSDOT Design Manual Exhibit 1010-2.
 - The construction opening with protection shall be the sum of the traffic lane widths and shoulders plus two 2-foot widths for temporary traffic barriers and two 2-foot shy distances per WSDOT BDM 2.3.9.
- For the final, constructed condition:
 - The horizontal clearance between the edge of the traveled way and unprotected components of the permanent structure shall be a minimum of 29 feet per WSDOT Design Manual Exhibit 1600-2.
 - When protected by a minimum 42-inch high, crash tested, rigid TL-5 barrier, the face of the bridge pier can be a minimum of 3.25 feet from the top edge of the traffic face of the barrier per WSDOT BDM 3.16.7.
 - The horizontal clearance between the permanent structure and adjacent sign bridge structures shall be a minimum of 15 feet.

Aerial Guideway and Shoreline South / 145th Station – Sound Transit

Similar to the Sound Transit Design Criteria Manual's (DCM) approach to Landscaping (DCM 10.3), the intent of the clearance to aerial guideway structures is to not adversely affect the sight distance of train operators and the public.

- During construction and for the final condition.
 - Defined as shown in Appendix 5, Design Criteria and Constraints.

Trail – City of Shoreline

- Minimum horizontal clearance from edge of trail pavement to an obstruction (such as bridge piers or guardrail) is 2 feet per WSDOT Design Manual 1515.02(2)(f).

VERTICAL CLEARANCE REQUIREMENTS

The minimum vertical clearances described below are shown graphically in Appendix 5, Design Criteria and Constraints.

Interstate 5 – WSDOT

- During construction:
 - Minimum vertical falsework clearance for bridges over highways is 16.5 feet per WSDOT Design Manual 720.03(5)(a)1 and WSDOT BDM 2.3.9.
- For the final condition:
 - Minimum vertical clearance for the permanent pedestrian bridge over a roadway is 17.5 feet per WSDOT Design Manual 720.03(5)(b)(3) from top of roadway to bottom of structure. Design assumes a minimum vertical clearance of 18 feet to provide an additional 6 inches of construction tolerance.

Aerial Guideway and Shoreline South / 145th Station – Sound Transit

No structures are anticipated to pass above the aerial guideway or Shoreline South / 145th Station.

Trail – City of Shoreline

The minimum vertical clearance above trails is 10-feet per WSDOT Design Manual 1515.04. This is consistent with the 10-foot standard vertical clearance for any projection over a bicycle path surface per Shoreline 2019 Engineering Development Manual, Table 15.1. Eight feet of vertical clearance is required over sidewalk surfaces. The required minimum tree branch clearance above any trail surface is 7-feet.

TRAIL AND BRIDGE GEOMETRY

Trail/Bridge/Shoulder Widths

The 2019 Shoreline Engineering Development Manual requires a minimum width of a multi-use path to be 12 feet. All paths must include 2-foot graded shoulders. If pedestrian traffic is heavy, a wider graded shoulder is recommended.

The full width of the trail, including the shoulders, should be carried across the bridge in order to provide the setback for railings required by the AASHTO Guide for the Development of Bicycle Facilities. Therefore, the trail on the bridge is 16 feet wide.

The maximum cross slope is 2% per City of Shoreline 2019 Engineering Development Manual.

Horizontal Trail Alignment

The minimum radii for horizontal curves on a paved, shared-use path is 27 feet per the AASHTO Guide for the Development of Bicycle Facilities, Table 5-2. This value based on the lean angle of the cyclist. The lean angle value is based on a 0% cross-slope to adhere to Americans with Disabilities Act (ADA) standards.

Per the AASHTO Guide for the Development of Bicycle Facilities 5.2.4 design speed of bicycles is dependent on the grade of the path, turning radius constraints, and the provided stopping sight distance. Due to geometric constraints, low design speeds will be considered ranging from 12 mph to 20 mph. When considering descending conditions, a higher design speed will be considered. For sustained steeper grades (6% or greater) the highest design speed is 30 mph.

Vertical Trail Alignment

In addition to the vertical clearance requirements described above, vertical trail alignment is primarily governed by ADA access requirements which are described in the Access Criteria section.

Trail and Bridge Features

- Bridge railing
 - Height to top of railing, 42 inches per AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges, 2nd Edition.
 - Continuous barrier that prevents the passage of a 4 inch diameter sphere from the finished grade to the top of railing per IBC 1015.4.
- Bridge screening (Throw Barrier) for bridges over highways is not required per WSDOT Design Manual 720.03(13). However, based on input received from WSDOT, a 10-foot tall vertical throw barrier over I-5 is assumed.
- Bridge deck joints meet ADA requirements and provide safe passage for bicycles.

BRIDGE STRUCTURAL DESIGN CRITERIA

Loads

- Dead Loads
 - Concrete, Normal-weight Reinforced 155 lb/ft³ WSDOT BDM 3.8
 - Steel 490 lb/ft³ AASHTO LRFD Table 3.5.1-1
 - Utilities self-weight of conduit/drains/etc.
- Live Loads
 - Pedestrian 90 lb/ft² AASHTO Pedestrian 3.1
 - Maintenance Vehicle H10 without impact AASHTO Pedestrian 3.2
- Wind Loads
 - Acting Horizontally, whichever governs between AASHTO Pedestrian 3.4 / AASHTO Signs 3.8 and AASHTO LRFD 3.8

- Acting Vertically, per AASHTO LRFD 3.8.2
- Seismic Loads, Design Parameters
 - Site Class D
 - Design Spectral Ordinates
 - Peak Ground Acceleration Coefficient, AS 0.441g
 - Short-Period (0.2 sec) Response Coefficient, SDS 1.02g
 - Long-Period (1.0 sec) Response Coefficient, SD1 0.545g
 - Seismic Zone (per AASHTO LRFD Table 3.10.6-1) 4
- Vehicular Collision Loads. The bridge piers are expected to be outside of clear zones for I-5 or protected by barriers and will not be designed for collision loads.
- Temperature Loads per WSDOT BDM 3.16.6
 - Concrete Bridges 0° to 100°F
 - Steel Bridges 0° to 120°F

Allowable Deflections and Vibrations

- Deflections
 - Maximum deflection due to unfactored pedestrian load is 1/220 of the length for cantilever spans and 1/360 of the length for all other spans per AASHTO Pedestrian.
 - Maximum horizontal deflection due to unfactored wind loading is 1/360 of the length.
- Vibrations
 - The fundamental frequency in a vertical mode of the pedestrian bridge without live load shall be greater than 3.0 hertz. The fundamental frequency in the horizontal direction shall be greater than 1.3 hertz.
 - Pedestrian induced vibration and acceleration limits prescribed in the 2016 SETRA Technical Guide to Footbridges

ACCESS CRITERIA

Americans with Disabilities Act (ADA) Requirements

The City of Shoreline 2019 Engineering Development Manual requires that all designs meet the current American with Disabilities Act (ADA) requirements and standards in the Public Rights of Way Accessibility Guidelines (PROWAG). These guidelines specify a maximum running slope of 5% for all sidewalks and paths. At this stage of design a maximum slope of 4.25% is used to account for construction tolerance. Where steeper slopes are required, a maximum ramp slope of 8.33% for approximately 30 feet is allowed with a 5-foot wide landing with a slope of 2%. A minimum slope is required of 0.5% to prevent the accumulation of water. At this stage of design, a running slope of 7.5% and a cross slope of 1.0% to 1.5% is used for ramp design to allow for construction tolerance.

Maintenance and Inspection Access

Based on past experience with similar structures and recommendations from the AASHTO Pedestrian Bridge Code, the bridge will be designed for an H10 truck (without dynamic impact). This load is comparable to most maintenance vehicles that are expected to access the bridge.

The preferred structure type will have a significant impact on the equipment necessary to meet inspection and reporting requirements. As the design progresses additional equipment loads may be considered.

Emergency Access

No provisions for emergency response vehicles (e.g. ambulances or fire trucks) will be included in the design of the trail or bridge structure. The ramp configuration at the eastern landing will likely prevent emergency vehicle access across the bridge.

STORMWATER DETENTION AND WATER QUALITY

The City of Shoreline 2020 Engineering Development Manual, Division 3 adopted the 2014 Department of Ecology (DOE) Stormwater Management Manual for Western Washington (Stormwater Manual). The City of Shoreline includes amendments to the DOE Stormwater Manual in the City of Shoreline 2020 Engineering Development Manual. Where the Stormwater Manual states a provision is "optional", it is listed as a requirement in the City of Shoreline.

The following stormwater requirements are listed in the Stormwater Manual and will be triggered by different project characteristics, as listed below. Refer to the 2014 Stormwater Management Manual Flow Charts for Determining Requirements for New Development. For the purposes of this report, the project is assuming roadway criteria.

Requirement 1 – Preparation of Stormwater Site Plans

- Applies to new and replaced hard surfaces and the land disturbed resulting in 2000 square feet or more of new plus replaced hard surface or land disturbing activity total 7000 square feet.

Requirement 2 – Construction Stormwater Pollution Prevention (SWPP)

- Applies to all new and redevelopment projects.

Requirement 3 – Source Control of Pollution

- Applies to new and replaced hard surfaces and the land disturbed resulting in 2000 square feet or more of new plus replaced hard surface or land disturbing activity total 7000 square feet.

Requirement 4 – Preservation of Natural Drainage Systems and Outfalls

- Applies to new and replaced hard surfaces and the land disturbed resulting in 2000 square feet or more of new plus replaced hard surface or land disturbing activity total 7000 square feet.

Requirement 5 – On-site Stormwater Management

- Applies to new and replaced hard surfaces and the land disturbed resulting in 2000 square feet or more of new plus replaced hard surface or land disturbing activity total 7000 square feet.
- Meet the LID Performance Standards through the use of BMPs.

Requirement 6 – Runoff Treatment

- Applies to road projects with 5000 square feet or more of new hard surfaces and the hard surfaces add 50% or more to the existing hard surfaces within the project limits.

Requirement 7 – Flow Control

- Applies to road projects with 5000 square feet or more of new hard surfaces and the hard surfaces add 50% or more to the existing hard surfaces within the project limits.

Requirement 8 – Wetlands Protection

- Applies to road projects with 5000 square feet or more of new hard surfaces and the hard surfaces add 50% or more to the existing hard surfaces within the project limits.

Requirement 9 – Operation and Maintenance

- Applies to road projects with 5000 square feet or more of new hard surfaces and the hard surfaces add 50% or more to the existing hard surfaces within the project limits.

UTILITY DESIGN CRITERIA

Utility requirements per City of Shoreline 2020 Engineering Development Manual and Shoreline Municipal Code (SMC). Minimum clearances to existing utilities will be determined during design.

LIGHTING DESIGN CRITERIA

The City of Shoreline 2020 Engineering Development Manual Division, Section Streetlight Master Plan addresses illumination by ratings within the City limits. Applicable design standards shall be selected based on the standards outlined in Table 3-5. In addition, lighting levels will take into account CPTED guidelines

The design will utilize LED, energy efficient lighting, address light trespass over the I-5 corridor, and adopt appropriate pole and luminaire types to compliment the adjacent neighborhood and Sound Transit light rail station aesthetics. Electrical design requirements shall follow the latest release of National Electrical Code (NEC).

LANDSCAPE DESIGN CRITERIA

The urban and landscape design will reflect the project context within an existing neighborhood that is evolving into a more urban, transit-oriented district and complement the Sound Transit light rail station aesthetic. The design will emphasize pedestrian-friendly elements including pedestrian-scale lighting and decorative accent lighting; thoughtful yet durable site furnishings such as benches, litter/recycle receptacles and bicycle racks; decorative pavement treatments that help delineate and guide pedestrian/bicycle movements and mixing zones; identity markers that reinforce a sense of place and create landmarks; and pedestrian/bicycle directional wayfinding signs at decision making locations.

In order to meet the City of Shoreline's 1% for the Arts requirements, elements of public art will be incorporated into the project design. The art element could include stand-alone pieces or could be incorporated into the bridge design or the urban design amenities mentioned above. This integration will help to make the bridge an iconic landmark feature within the City of Shoreline. The landscape will emphasize low-maintenance, northwest-adapted plants appropriate for use along public rights-of way and trails. Irrigation will

be provided to reduce maintenance needs and establish a healthy plant community. Low Impact Development (LID) facilities will be incorporated into the landscaping to accommodate drainage from the trail. The landscape design will be governed by the relevant jurisdictional standards outlined in Table 3-6 based on its location within City of Shoreline, WSDOT or Sound Transit right-of-way or private property.

In addition, there are numerous existing mature trees which may be impacted, or which may need to be removed, in order to construct the bridge and associated landing and trail areas. Tree removals will be mitigated per the requirements of the Shoreline Municipal Code, as outlined in Table 3-6.

Sound Transit Right-of-Way

The landscape design at the east bridge landing will be coordinated with the design of the Sound Transit light rail station and will meet the standards of the Sound Transit Design Criteria Manual.

WSDOT Right-of-Way

Landscaping within the WSDOT right-of-way will be designed to meet WSDOT standards for the Interstate-5 corridor and in coordination with the WSDOT Northwest Region. Trees removed within the WSDOT right-of-way will be replaced/mitigated according to WSDOT's tree-replacement requirements.

Private Property

Property restoration to adjacent properties will match/replace landscape areas that are disturbed and in addition will be designed to provide a balance of privacy/screening and visibility between the private property and the trail. Any trees which are required to be removed from private property will be mitigated per Shoreline Municipal Code requirements.

4. Design Constraints

Below are a number of critical design constraints that have been considered during development of the various bridge and trail alternatives.

VERTICAL CLEARANCES

Vertical clearance requirements are the primary constraint that drives the location of the main span bridge crossing of I-5. Section 720.03(5)(b)(3) of the WSDOT Design Manual requires a minimum vertical clearance of 17.5-feet for a pedestrian bridge over a roadway. A vertical clearance of 18-feet is used for design in order to account for construction tolerances. This vertical clearance requirement is seen as non-negotiable.

In addition to passing over the freeway, the bridge must pass below the overhead structure that carries the light rail tracks. The City of Shoreline Engineering Design Manual adopts WSDOT Design Manual criteria which requires a minimum of 10-feet of vertical clearance from the pedestrian pathway to any overhead obstruction. This vertical clearance requirement is consistent with recommendations contained within the AASHTO Guide to Bicycle Facilities which states that a 10-foot minimum vertical clearance is most desirable and that a minimum vertical clearance of 8-feet may be used in constrained areas. If necessary, the City could grant a deviation to their design standard to permit less than 10-feet of vertical clearance. It is recommended that the absolute minimum vertical clearance of 8-feet be used.

These two vertical clearance constraints create a narrow window in which the bridge profile successfully clears I-5 below and the light rail structure above. Figure 4-1 schematically shows this

limited window in which the bridge would fit while meeting minimum vertical clearances stated above.

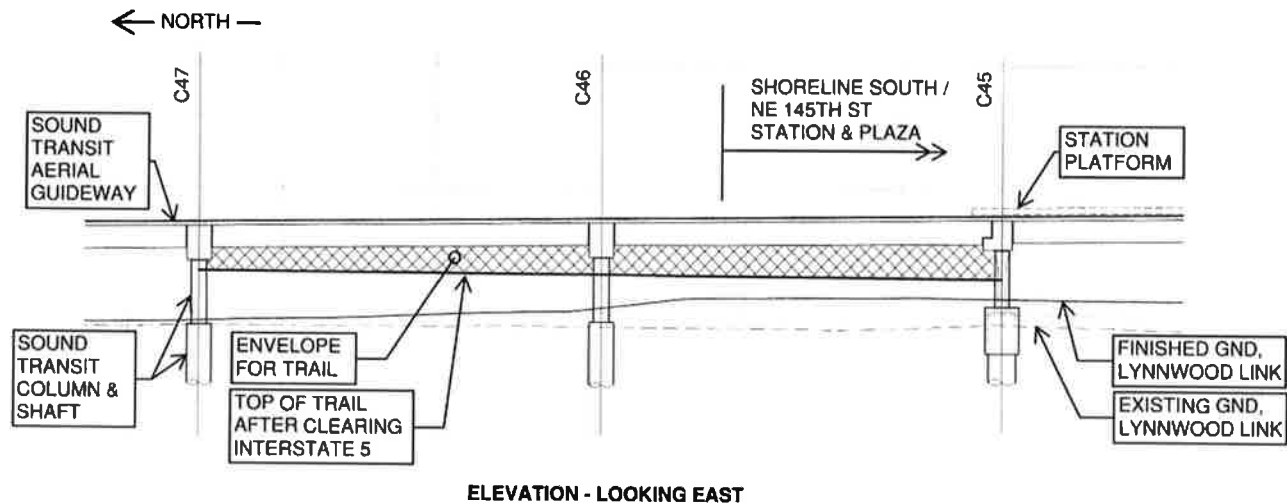


Figure 4-1: Main Span Bridge Vertical Clearance Window

HORIZONTAL CLEARANCES

Horizontal clearances to I-5 and how they are considered during development of the design alternatives are discussed below.

East Side of I-5

During the design development of the Lynnwood Link Extension project, ST and WSDOT established two forward compatibility lines (FCL) along the eastern edge of northbound I-5 in the vicinity of the Shoreline South/145th Street Station. These compatibility lines are based upon a future build-out of I-5 which adds a travel lane in each direction along with ramp improvements. The first FCL is referred to as the 94-foot line and represents the eastern most limit of a 10-foot wide amenity zone where elements like signage, utilities and drainage features may be placed. The second FCL line is referred to as the 84-foot line and represents the easternmost edge of the paved shoulder. Generally speaking, obstructions (e.g. bridge piers) may be placed outboard of the 94-foot FCL without restriction. With WSDOT approval, obstructions may be placed in between the 84-foot and 94-foot FCL's, however, these obstructions should be able to accommodate the aforementioned amenity zone improvements. No obstructions are permitted within the 84-foot FCL. These horizontal clearance requirements were used in the design development of this project and are shown in Figure 4-2.

Bridge Pier in I-5 Median

I-5 in the project area is tightly constrained by the existing layout of the freeway including the existing bridge at NE 145th Street. These constraints would make construction of an intermediate bridge pier in the median very challenging and cost prohibitive. Specific challenges include:

- **Construction Access:** The existing median measured from northbound edge-of-shoulder to southbound edge-of-shoulder is approximately 12-feet wide. It is estimated that the work zone required to construct an intermediate bridge pier would be approximately 25-feet wide, not including construction access pullouts. Temporary re-channelization of I-5 to accommodate the work zone would significantly increase construction costs.

- **Existing Drainage Features:** There is an existing storm drain in the median which was constructed in the 1980's that would likely need to be relocated to accommodate the construction of the bridge pier. This facility would need to be upgraded/mitigated to meet modern design standards. This storm drain also outfalls to Thornton Creek. Mitigation to the storm drain facility and/or associated impacts to Thornton Creek are unknown at this time, but could be cost prohibitive and/or difficult to permit.
- **Traffic Impacts:** Construction of an intermediate bridge pier would require two or more significant traffic shifts in order to accommodate the work zone. Traffic shifts like these are disruptive to traffic and represent an increased safety risk to both the travelling public and the Contractor.

Based on these reasons, it is assumed that an intermediate bridge pier located within the I-5 median is not feasible and was not considered in the TS&L design development. A similar conclusion was reached in the 2017 bridge alignment feasibility study.

West Side of I-5

In order to establish feasible bridge pier locations at the western trail connection, a FCL for southbound I-5 was determined. Utilizing a similar approach to what was taken at the eastern bridge landing, a future lane configuration was established which consists of five through lanes and a two-lane tapered off-ramp to NE 145th Street which is shown in Figure 4-2.

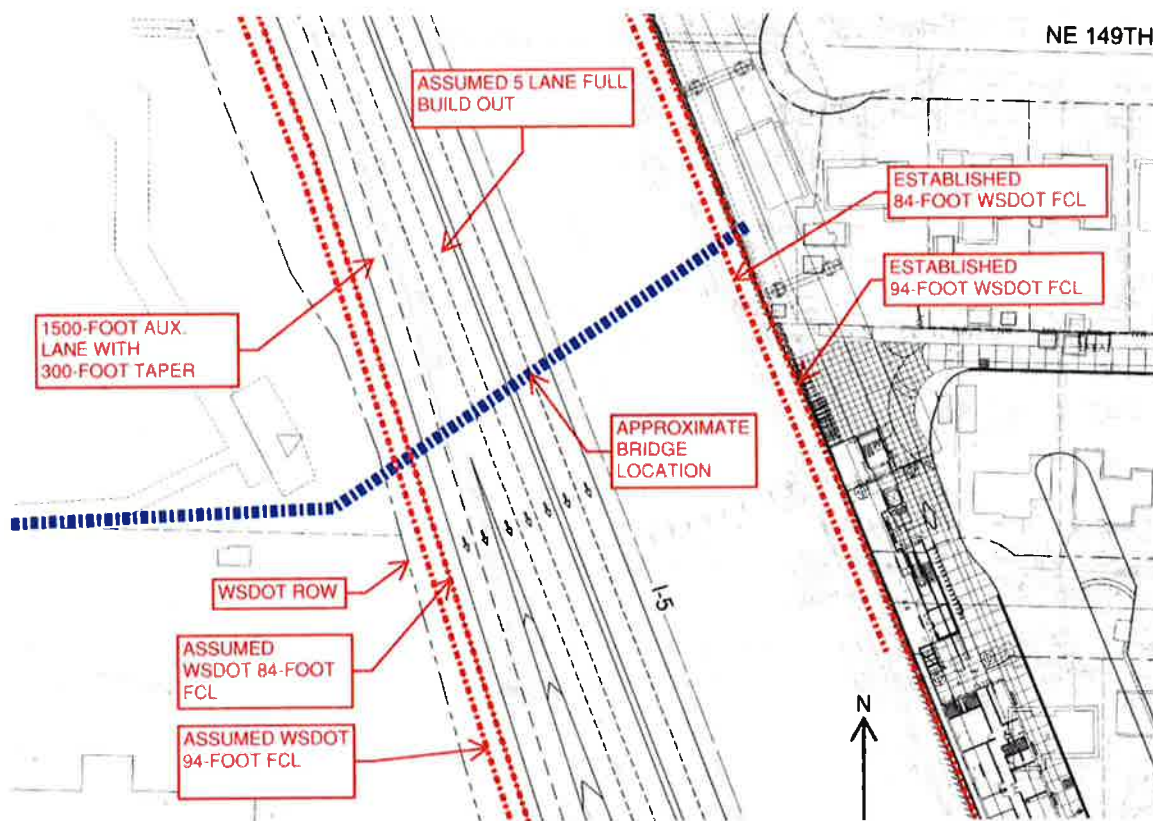


Figure 4-2: WSDOT Forward Compatibility Lines

This figure demonstrates that the 84-foot and 94-foot FCL's are approximately within 20 feet and 10 feet of the edge of the WSDOT ROW line, respectively. Placing a bridge pier within these areas provides only a marginal reduction in bridge span length. For the purposes of the TS&L design development, it was assumed that any bridge pier on this side of I-5 will be located outside of WSDOT ROW.

SOUND TRANSIT PARK AND RIDE

Sound Transit is currently leasing parking spaces from the Philippi and Unitarian parcels as a temporary park and ride facility. This temporary facility replaces the loss of the North Jackson Park and Ride which was demolished for the construction of the Shoreline South/145th Street station. The temporary park and ride facility will need to remain in operation until the new parking garage at the light rail station opens in 2024 when light rail service begins. These parking spaces will need to be maintained or relocated during construction of this project.

CELL PHONE TOWER

As mentioned previously, there is a privately owned cell phone tower located in the southeast corner of the Church of Christ parcel. The cell phone tower is approximately 50-feet tall and is served by several underground utilities. Based on recent experience, relocation of a cell phone tower of this type and size is cost prohibitive. For the purposes of the TS&L design development, it was assumed that the cell phone tower will remain in its existing location.

5. Geotechnical Analysis and Recommendations

A significant amount of geotechnical information is available for the area in the vicinity of the proposed east bridge abutment; however, limited data exists for the area in the vicinity of the proposed west bridge abutment. Relevant available data includes general information on the geologic setting of the entire project area, as well as extensive site specific subsurface information that was collected by others for the Lynnwood Link Extension project. Due to the lack of information in the vicinity of the proposed west bridge abutment, a preliminary subsurface exploration program was conducted near the anticipated location of the western bridge foundation. The exploration program consisted of advancing one exploratory boring to a depth of about 100-feet below the ground surface (bgs). Depending on where the proposed bridge foundations are located, additional explorations may be needed at the actual foundation locations.

Subsurface conditions across the site appear to be somewhat consistent, with the upper 13 to 35 feet of soil consisting of very loose to medium dense sand and very soft to soft silt (Fill). At the locations explored for this project and by others, the fill soils are typically underlain by dense to very dense sand and gravel (Advance Outwash) that extends to the maximum depths explored.

GEOLOGIC HAZARDS

Based on a review of the City of Seattle's *Seattle Hazard Explorer* and King County's *iMAP* web applications, the project site does not appear to be located in a landslide hazard area. However, based on a review of the available geotechnical information for the project area and the results of the preliminary exploration program, it is possible that some portions of the existing fill materials at the project site that are located below the water table could be subject to soil liquefaction and lateral spreading during a design-level earthquake. Soil liquefaction and lateral spreading could subject the bridge foundations to down-drag and lateral loads, respectively. Down-drag loads could lead to bridge foundation damage if not accounted for in the design, as well as increased foundation settlement. If it is determined that lateral spreading could occur at the project site, the foundations for the bridge will need to be situated outside of the zone of lateral spreading or the foundations will need to be designed to withstand the lateral forces by the moving soil. Potential methods to mitigate liquefaction at the site include improving the soils or to design the bridge to tolerate the consequences of liquefaction (i.e., design the structure to tolerate down-drag loads and foundation settlement).

BRIDGE FOUNDATION RECOMMENDATIONS

The upper 13 to 35 feet of soils at the project site are soft/loose and have marginal foundation support characteristics. Furthermore, portions of the upper soils may be subject to soil liquefaction and lateral spreading during a design-level earthquake. As a result, shallow foundations are not considered to be an appropriate foundation type for the proposed bridge. Another reason that shallow foundations are not considered appropriate for the proposed bridge is because shallow foundations are not effective where soil liquefaction can occur at or below the footing level, unless the liquefiable soil is removed, improved using ground improvement techniques, or is well below the footing level. Therefore, it is anticipated that the proposed non-motorized bridge will need to be supported by deep foundations.

Driven pile foundations and drilled shaft foundations are two deep foundation types that can be used when shallow foundations are not appropriate. For this project, shaft foundations with a diameter of 8-feet or greater appear to be most advantageous because a very dense bearing stratum can be penetrated in order to obtain the anticipated required bearing, uplift, and lateral resistance. In addition, shafts can be cost effective if a single shaft per column can be used as opposed to a pile group with a pile cap, especially if temporary shoring is required to construct the pile cap. Finally, unlike driven piles, shafts have the advantage of a reduced potential to cause damage to existing adjacent facilities from pile driving vibrations.

Under certain situations, augercast piles can be a cost-effective deep foundation. However, because augercast piles have a limited ability to resist lateral loads, they are typically not used to support structures that are subjected to significant lateral loads. Furthermore, it is the WSDOT's policy not to use augercast piles to provide foundation support for bridges.

Based on the subsurface information that was available at the time this report was prepared, drilled shaft foundations located on the east and west sides of I-5 would obtain negligible capacity from approximately the upper 20 and 30 feet of soil, respectively. For preliminary planning purposes, a single non-redundant 8.2 feet (2.5 meter) diameter drilled shaft installed below the upper 20 to 30-feet of soil that will provide negligible capacity could be anticipated to have a nominal tip resistance on the order of about 2,800 kips and a nominal side resistance of approximately 80 kips per foot of embedment below the upper 20 to 30-feet of soft/loose soil. At the service limit state with an assumed 1 inch of allowable foundation settlement, the factored tip resistance and side resistance for a single non-redundant 8.2-foot diameter drilled shaft could be preliminarily assumed to be on the order of about 1,000 kips and 75 kips per foot of embedment below the upper 20 to 30-feet of soft/loose soil, respectively. These preliminary drilled shaft foundation capacities will be refined as the design of the project progresses.

6. Public Outreach

Stakeholder outreach and public involvement have been integral parts of the TS&L design development process. Considerable effort was made in presenting options and gathering feedback from key stakeholders throughout the study process. The first step in this development was identifying the project stakeholders who are anticipated to be directly impacted by the project as well as other advocacy groups and community organizations who might have input. Working with the City, the design team developed a list of these stakeholders which is shown in Table 6-1.

Table 6-1: List of Project Stakeholders

Stakeholder Type	Prospective Groups
Elected officials	City of Shoreline Mayor, City Council
City of Shoreline leadership	City Manager
Adjacent churches	Philippi Presbyterian Church of Seattle (Korean), Shoreline Unitarian Universalist Church, Church of Christ (Filipino)
Other faith communities	St. Barnabas Anglican Church, Shoreline Full Gospel Fellowship, True Light Church in Seattle (Korean), City Calvary Chapel, True Jesus Church (Chinese), North Seattle Church of the Nazarene, Seattle Arabic Baptist Church
Neighborhood associations	Parkwood Neighborhood Association Ridgecrest Neighborhood Association Briarcrest Neighborhood Association Council of Neighborhoods
School communities	Parkwood Elementary School, The Evergreen School, Lakeside School, Lakeside Middle School, Ingraham High School
Preschool/daycare	The Teaching Home Family Childcare & Preschool, Winding Willow School, Butterfly Home Daycare and Preschool, Petite Academy
Parks users	Twin Ponds Park, Paramount Park, Paramount Open Space, Jackson Park Golf Course, Licorice Fern Natural Area
Commuters/park-and-ride users	
Future Sound Transit light rail users	
Private developers/real estate	Horizon View Homes, Evergreen Point Group, Kidder Mathews, JLL, Intracorp, Yu Wang
Bicycle, pedestrian and mobility advocacy groups	Feet First, Cascade Bicycle Club, Disability Rights Washington, Northwest Universal Design Council, North King County Mobility Coalition, HopeLink, Transportation Choices Mobility Coalition, Futurewise
Senior living communities	Aegis Living Shoreline, Park Ridge Care Center
Other	Malmo Apartments (Parkwood)
WSDOT	
Sound Transit	
King County Metro	
Puget Sound Regional Council	

The following tools have been utilized throughout the design process in order to communicate project progress and gather direct feedback from project stakeholders:

- Project briefings with key stakeholders
- Development of outreach materials including FAQ, project folios and fact sheets
- Maintaining and updating the project website

In addition to these outreach methods, a minimum of two project open houses will be held to gather feedback from the general public. The first open house will presented the bridge and trail alignment alternatives discussed later in this report. See Section 16 of this report for a more detailed discussion of this open house effort and feedback that was gathered. The second open house will present the preferred bridge and trail alignment alternative as well as demonstrate how feedback gathered during the first open house was incorporated into the design.

PROJECT BRIEFINGS

Project briefings have served an important role in gathering feedback from stakeholders who will be directly affected by this project. The following sections provide a summary of comments and concerns that were heard from these groups during these briefings. As the project continues to develop, the City and project team will have follow-up briefings in order to create partnerships and communicate any project impacts to these key stakeholders. Meeting notes from these briefings have been included in Appendix 5.

Church of Christ

The primary project concerns expressed by representatives of the Church of Christ were:

- **Safety:** Church leaders want to ensure a safe environment for their parishioners. This is especially important in light of past security incidents that have occurred at their other church locations in the Seattle area.
- **ROW:** Church leaders want to ensure that there is a clear delineation between public ROW and their property and that the trail alignment does not encourage trespassing.
- **Congestion:** Church leaders were concerned with the potential for illegal parking and/or congestion due to bridge/trail users being dropped off along 1st Ave NE in order to access the light rail station.

Follow-up briefings with Church of Christ leadership are planned.

Unitarian Universalist Church

The primary project concerns expressed by representatives from the Unitarian Universalist Church were:

- **Parking:** Church leaders expressed that parking for their parishioners is already a challenge and that loss of parking due to the project would need to be replaced.
- **Trespassing:** Church leaders preferred trail alignments that are formalized and that provide a direct connection to the bridge crossing. Overly circuitous alignments would likely encourage trespassing across their property which increases their liability.

Follow-up briefings have been scheduled with the Universalist Unitarian Church leadership but had not yet occurred at the time of this report.

Philippi Presbyterian Church

The primary project concerns expressed by representatives from the Philippi Presbyterian Church were:

- **Parking:** Church leaders expressed that parking for their parishioners is already a challenge and that loss of parking due to the project would need to be replaced.
- **Trespassing:** Church leaders preferred trail alignments that are formalized and that provide a direct connection to the bridge crossing. Overly circuitous alignments would likely encourage trespassing across their property which increases their liability.

- **Future Development:** Church leaders are interested in potentially redevelopment of their property and want to ensure that this project would not preclude this possibility.

Follow-up briefings have been scheduled with the Philippi Presbyterian Church leadership but had not yet occurred at the time of this report.

Ridgecrest Neighborhood Association

The Ridgecrest neighborhood is located east of I-5 and is bounded by the freeway, NE 175th, 15th Ave NE and NE 145th street. The primary project concerns expressed by representatives from the Ridgecrest Neighborhood Association to the design team and the City during the first project briefing were:

- **Tree Impacts:** Neighborhood association members expressed the desire to minimize mature tree removal as much as possible.
- **Safety:** Neighborhood association members want to have a safe-feeling trail and bridge facility. Nighttime lighting for the trail and bridge is important. Also, less circuitous trail connections are preferred in order to promote user safety.
- **Public Restroom Facilities:** Neighborhood association members would like to see a public restroom facility incorporated into the east landing at the light rail station.
- **Improve Neighborhood Connections:** Neighborhood association members would like to see better pedestrian and bicycle connections in the surrounding neighborhoods including sidewalks and bike lanes.
- **Freeway Noise at East Landing:** Neighborhood association members are concerned that freeway noise will detract from any public spaces at the east bridge landing. The noise wall in this area provides only a limited amount of noise mitigation.

Follow-up briefings with the Ridgecrest Neighborhood Association are planned.

Parkwood Neighborhood Association

The Parkwood neighborhood is located west of I-5 and is bounded by the freeway, N 160th, Highway 99 and N 145th street. The primary project concerns expressed by representatives from the Parkwood Neighborhood Association to the design team and the City during the first project briefing were:

- **Parking:** Neighborhood association members expressed concerns about increased parking congestion in the surrounding neighborhood due to people parking to use the bridge to get to the light rail station.

Follow-up briefings with the Parkwood Neighborhood Association are planned.

WSDOT

The primary project concerns expressed by WSDOT representatives to the design team and the City during the first project briefing were:

- Any structural elements placed within 84-foot and 94-foot forward compatibility lines at the east bridge landing will need to be able to accommodate future drainage features (e.g. ditches or storm drain) and other improvements like ITS or other similar utilities.
- It is likely that the existing sign bridge on southbound I-5 at the NE 145th Street exit will be impacted by the project. This sign bridge is a vintage, truss-style sign bridge and its replacement should be a monotube style sign bridge.
- Any impacts to Thornton Creek in the project area should be avoided.

- Any architectural bridge lighting, other than what is required for pedestrian safety, should be avoided as this may serve as a distraction for drivers.

Follow-up briefings have yet to be scheduled with the WSDOT but are planned.

Sound Transit

The primary project concerns expressed by ST representatives to the design team and the City during the first project briefing were:

- **Minimizing Station Design Impacts:** The design of the pedestrian bridge and landings should strive to minimize impacts to the existing design of the Shoreline South/145th Street Station.
- **Maintain Construction Clearance Envelopes:** Adequate clearance to light rail station structures should be maintained during construction. These distances will need to be established during subsequent design phases.

Follow-up briefings have yet to be scheduled with the ST but are planned.

7. Environmental Documentation and Permitting

Preliminary data was gathered to identify wetlands, waterways, wildlife habitats, and cultural resources issues and the probable associated permitting requirements. The project evaluated at this time was limited to the western trail alignment area as the eastern landing is currently an active construction site. The study area extends 300 feet from the project area for evaluation of wetland/waterway critical areas.

WETLANDS, WATERWAYS, WILDLIFE HABITATS, AND PLANTS

Public documents reviewed included City Critical Areas Mapping, National Wetlands Inventory (NWI) mapping, Federal Emergency Management Agency (FEMA) floodplain data, Washington Department of Fish and Wildlife (WDFW) priority habitats and species (PHS) data, and Washington Natural Heritage Program Geographic Information System (GIS) data sets regarding habitats and plants.

The City of Shoreline Critical Areas mapping identifies (also refer to the Natural Resources Map in Appendix 5, Environmental Permitting):

A piped segment of Thornton Creek is in the project area adjacent/under I-5, and a segment of open channel of Thornton Creek is in the study area parallel to I-5. Thornton Creek in the study area is identified as a Type F (fish habitat) stream, and is mapped by WDFW PHS on the Web as having "occurrence/migration" of resident coastal cutthroat trout (WDFW 2020a). This segment of Thornton Creek does not currently contain anadromous fish due to downstream fish blockages, including a culvert at I-5 (WDFW 2020b). However, the potential exists that these downstream man-made blockages could be repaired to provide fish passage. In accordance with the City of Shoreline's (City) critical areas regulations, piped stream segments are provided a standard buffer of 10 feet and Type F streams with the potential to be passable by anadromous fish presence are prescribed a standard buffer of 115 feet.

A portion of wetland associated with Thornton Creek intersects the northern limits of the study area. This wetland is mapped by the City overlapping a palustrine, unconsolidated bottom, permanently flooded, diked/impounded (PUBHh) wetland habitat mapped by the NWI, although NWI data do not identify any wetlands extending into the study area. The wetland is separated from the project area by existing

development (i.e., 1st Avenue NE and Aegis Assisted Living Facility). Any associated buffer that potentially intersects the project area is functionally isolated by these developments (as a result, preliminary wetland categorization and buffer width is not provided with this evaluation).

Based on site reconnaissance completed by Landau Associates, Inc. (LAI) on January 23, 2020 (also refer to Natural Resources Map in Appendix 5, Environmental Permitting):

Two potential wetland areas, Wetland A and Wetland B, were observed in the study area in the I-5 right-of-way. Wetland A is provided a preliminary rating as a Category III wetland with an associated habitat score of 4, requiring a 60 foot standard buffer width in accordance with the City critical areas regulations. Wetland B is provided a preliminary rating as a Category IV wetland, requiring a 40 foot standard buffer width in accordance with the City critical areas regulations. These wetlands occur on the highway side of the right-of-way fence and were not accessible at the time of the site reconnaissance. Since these wetlands occur in Washington State Department of Transportation (WSDOT) right-of-way, additional information from WSDOT may be available regarding wetland determinations of these areas, otherwise additional evaluation may be required to confirm preliminary determinations/categorizations.

Ditches were observed along 1st Avenue NE that may require evaluation for jurisdiction under Section 404 of the Clean Water Act (CWA). In general, only those segments of ditches in the vicinity of the 1st Avenue NE and N 149th Street intersection were observed to likely satisfy wetland conditions and/or evidence relatively permanent flow and connection to other jurisdictional waters to potentially satisfy jurisdictional requirements of the CWA.

FEMA floodplain mapping does not identify any 100-year floodplain in the study area (FEMA 1995).

The WDFW PHS on the Web indicates that the project is located in a Township with documented little brown bat (*Myotis lucifugus*) breeding area (WDFW 2020a), however, site specific PHS data requested from WDFW do not identify this breeding area in the project vicinity (WDFW 2020c).

The Washington Natural Heritage Program does not indicate any records of rare plants or unique habitats in the study area (NHP 2019).

CULTURAL RESOURCES

WSDOT Local Programs has completed consultation regarding the Area of Potential Effects (APE) with the Washington Department of Archaeology and Historic Preservation (DAHP), and it has been confirmed that historical/archaeological evaluation will be required for compliance with Section 106 of the National Historic Preservation Act (NHPA). The APE encompasses the extent of the alignment options referenced above. Currently no buildings in the APE are listed on the National Register of Historic Places or Washington Heritage Register (DAHP 2020).

ENVIRONMENTAL PERMITS AND DOCUMENTATION

Documentation evaluating effects of the proposed project on environmental and cultural resources referenced above will be required. Environmental documentation required as part of the selected alignment includes:

Wetland/Waterway Critical Areas Report, involving a formal wetland and ordinary high water mark delineation and discussion of mitigation sequencing, including compensatory mitigation, if needed.

Cultural Resources Investigation Report, involving a field effort and impact evaluation.

Endangered Species Act/Essential Fish Habitat effect determinations, documented in a letter of No Effect, or a Biological Assessment. Evaluation of potential project impacts is likely to focus on water quality/quantity effects related to stormwater runoff associated with new impervious surfaces.

WSDOT National Environmental Policy Act (NEPA) Categorical Exclusion Form and State Environmental Policy Act (SEPA) checklist, requiring design details of the proposed project.

The environmental documentation supports applications for the following environmental permits, which will likely be necessary for the proposed project:

NEPA determination from WSDOT Local Programs, and if necessary, the Federal Highway Administration.

SEPA determination from the City.

US Army Corps of Engineers (USACE) Section 404 permit for unavoidable impacts to potentially jurisdictional ditches/associated wetlands in the vicinity of the 1st Avenue NE and N 149th Street intersection, which is limited to Options 2A, 2B, 3, and 4B.

City wetland/waterway critical areas compliance to address any project activities within regulated wetlands, waterways, and associated buffers. Critical areas compliance will be required for all alignment options associated with the aerial crossing of the piped segment of Thornton Creek, and depending on the location of the proposed bridge landing relative to the buffer associated with Wetland A (refer to Figure 1). No compensatory mitigation is anticipated to be required for the aerial crossing of Thornton Creek, and any unavoidable wetland buffer impacts are expected to be mitigated onsite, and may be combined with project landscaping design.

Typically, the USACE Section 404 permit for wetland impacts takes the most time to acquire. The permit timeline will be reduced if impacts to wetlands can be avoided. If wetlands are impacted, LAI assumes that the project would be permitted under the USACE Nationwide Permit (NWP) No. 14, Linear Transportation Projects, and would not require individual review by Ecology for CWA Section 401 Water Quality Certification. Description of NWP 14 references "trails" as an example of a linear transportation project. While "bridge" is not explicitly referenced in this NWP, the proposed bridge is a component of a trail connecting existing transportation facilities (i.e. 1st Ave and Shoreline South/145th Street Station). A conservative estimate to obtain a NWP is 6 months from submittal of the application. USACE review timeline should be reduced by the cultural resources and endangered species consultations that will be completed by WSDOT that are also required for CWA permitting. All other environmental permits can normally be obtained within 3 months of application.

8. Project Aesthetics

BRIDGE ARCHITECTURE

The architectural design concepts developed for the bridge must all address several basic criteria: pedestrian and cyclist safety; durability and ease of long-term maintenance; economy and image.

It is important to consider the context of the bridge when assessing different concepts. The freeway forms the most dominant contextual element in that most people seeing the bridge from afar will be moving at 60 miles-per-hour. This means that the design should be relatively simple and comprehensible in a brief time. Excessive ornamentation or complexity are not only wasted on highway bridges but can also be distracting to drivers. Simple forms are most appropriate.

The other major contextual element is the adjacent Shoreline South light rail station. At over 400-feet long and nearly the height of the pedestrian bridge, the station is visually complex, with a mix of materials and colors visible from the freeway. Architecturally speaking, a clean and simple bridge design best complements this complexity.

URBAN DESIGN

The character of the neighborhood surrounding the future Shoreline South/145th Street Station is rapidly evolving from single-family residential to a dense, transit-oriented context on both sides of I-5. In addition, the architecture of the light rail station itself will bring a new, more urban aesthetic to the neighborhood. The bridge will be the key element stitching these new neighborhoods on the west and east sides of I-5 together, and the bridge approaches/landings should be considered as vibrant public spaces that draw people to the bridge and foster connectivity across I-5.

The project aesthetic will reflect this context through the use of pedestrian-friendly elements including site lighting and accent lighting that make the spaces feel safe and inviting at all times of day and night; site amenities such as benches, litter/recycling receptacles, bike racks, and wayfinding signage; generous mixing zones and gathering spaces; and decorative pavements to help define these spaces, lend a sense of place, and guide pedestrian/bicycle interactions. Landscaping will be used to soften the hardscape elements and help to blend them into the site while providing low-maintenance, multi-season interest. A preliminary plant palette has been developed for the project and has been included in Appendix 5.

Wayfinding

Because the project spans between neighborhoods, providing continuity of urban design and place-making along the entire route will provide an additional strong visual connection for trail users and aid in wayfinding. In analyzing potential ways to connect to the bridge on the west side, it becomes apparent that the bridge's setback from 1st Ave NE will make good wayfinding a critical element of the project's success. While all of the west-side alternatives provide a connection from 1st Ave NE to the bridge, the bridge may not be visible from the roadway and/or the nearby private parcels. This may make trail users unsure of whether they are on the route to and from the light rail station. Establishing a clear system of wayfinding will help users feel comfortable they are on the correct route. The pathways leading to the bridge should be clearly marked and identified by understandable and welcoming wayfinding from both 1st Ave NE (and beyond as the City connects the bridge into their larger pedestrian and bicycle network) and from the light rail station.

9. Evaluation Criteria

During the design development process, the design team worked closely with City staff to develop a set of criteria to evaluate the various bridge and trail alternatives. These criteria are primarily qualitative in nature and will be used to help distinguish the various options and facilitate the selection of the preferred alternative. These evaluation criteria include:

USER SAFETY AND SECURITY

While all designs considered comply with safety and security code requirements, some options perform better based on their inherent characteristics and how well they meet the principles described in Crime Prevention Through Environmental Design (CPTED). These principles include natural access control to clearly guide trail users through the site, natural surveillance which allows users to see and be seen while passing through the site, territorial reinforcement that clearly defines the space as public, and physical maintenance of the facility. Each alternative will be assessed for how well they meet these criteria.

CONNECTIVITY AND TRAVEL TIMES

Each alternative will be assessed for how well they provide connectivity and influence travel times through the facility. Even minor increases in travel length can significantly reduce the functionality of a pedestrian/bicycle facility. Alternatives that provide direct and intuitive connections help improve the overall user experience.

EASE OF STAKEHOLDER APPROVAL

Each alternative will be assessed for its relative ease of project stakeholder approval. Key stakeholders include: City leadership, ST, WSDOT, adjacent property owners (e.g. churches), permitting agencies, community groups and the general public.

RIGHT-OF-WAY

Each alternative will be assessed for its impact on both ROW costs and ease of acquisition. This includes all necessary temporary or permanent easements and fee takes. Particular attention will be given to how ROW acquisition may affect overall project schedule.

OPERATIONS AND MAINTENANCE

Each alternative will be assessed for the potential future maintenance and operations costs. For the purposes of this evaluation, this will be a qualitative assessment based on past, similar project experience.

AESTHETICS

Because pedestrians and bicyclists interact with bridge and trail facilities at a much more intimate level, project aesthetics go a long way in defining the user experience. Each alternative will be assessed for its aesthetic value.

PROJECT COSTS

Project costs are often the single largest driving factor for any public works project. Preliminary project costs, including construction and soft costs, have been developed for each alternative. The following cost assumptions have been made for all alternatives considered:

- Contingency = 40% of construction cost including mobilization
- Engineering Design = 25% of construction cost including contingency
- Construction Management & Administration = 25% of construction cost including contingency
- ROW costs include temporary construction easements (TCE) and administration

Each design alternative will be qualitatively evaluated and rated against one another using the following system: Very Favorable, Favorable, Neutral, Unfavorable and Very Unfavorable.

10. Bridge and Trail Alternatives Overview

A collaborative approach was taken in the development of aesthetic themes and selection of the various components of the project. The City and the design team worked closely together to establish and enhance the City's vision for the bridge and trail connections. At key decision points in the project development, workshops were conducted to discuss trail and bridge alternatives. The workshops included key design team members and City staff from a wide range of departments. These workshops provided a forum for the design team to present information regarding trail alignments, structural forms, project constraints, etc. The City then determined whether these bridge and trail concepts fit within the City's vision for the project and provided direction for next step. Meeting notes from these workshops are included in Appendix 5.

During development of the design alternatives it became evident that the project could be naturally divided into three distinct sections: west side trail alignments, the bridge main span, and the east side landings. The limits of these sections are shown schematically in Figure 10-1 below. Each alternative from each section can be combined interchangeably with the others to form a complete project.

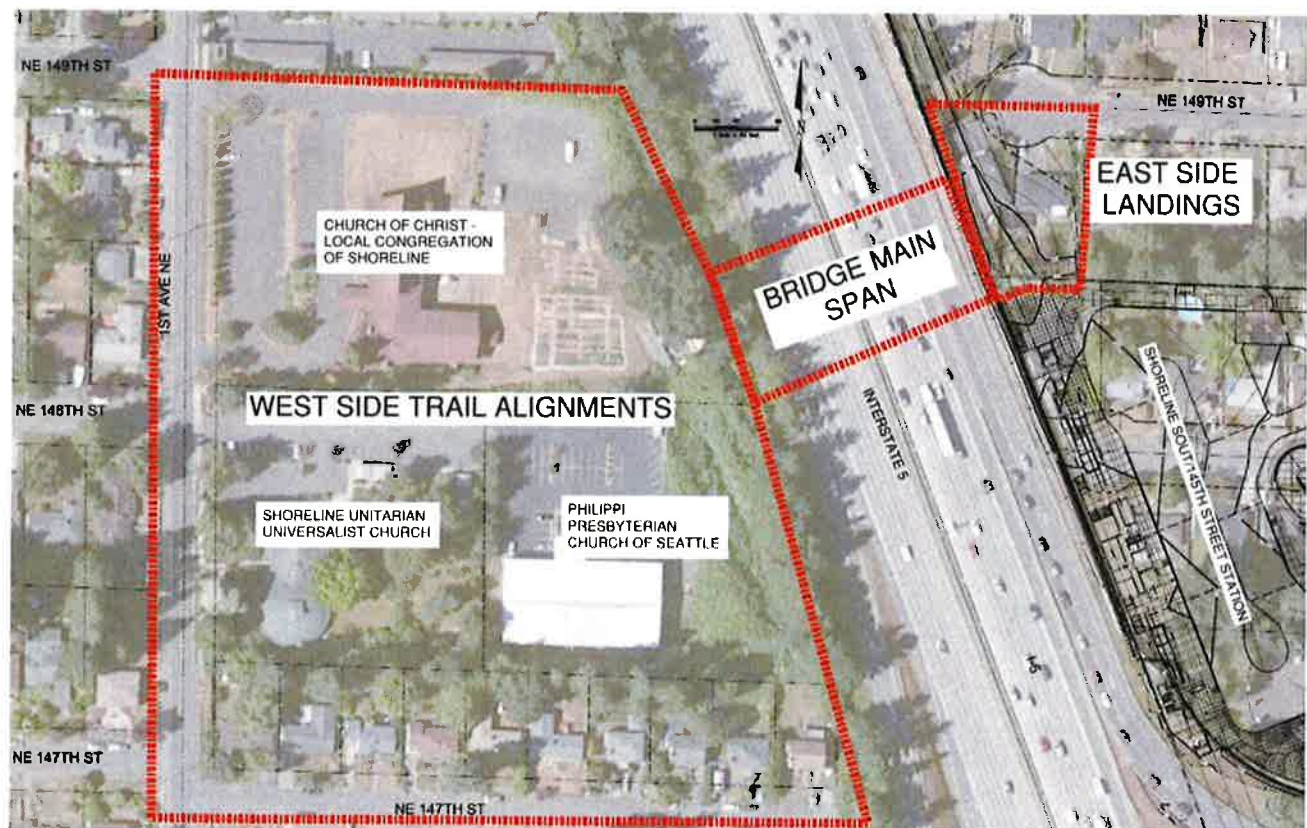


Figure 10-1: Trail and Bridge Segment Overview

11. West Side Trail Alignments

The following section describes the trail alignment alternatives for the west side trail. The section of trail connects users from 1st Ave NE to where the bridge takes off across I-5.

INITIAL ALIGNMENT ALTERNATIVES SCREENING

As mentioned in Section 4, the feasible location for the main-span bridge crossing is heavily constrained by clearance requirements resulting in a limited area in which the structure can be located. Using this as the starting point for the west side trail, three general alignments were considered and screened for their feasibility.

These alignments are described below and are also shown schematically in Figure 11-1.

- Northern alignment: The trail alignment begins at the bridge landing and proceeds north along the eastern edge of the Church of Christ parcel. Once it reaches the northern property line of this parcel, it heads west and makes a connection with 1st Ave NE near the intersection of N 149th Street.
- Southern Alignment: The trail alignment begins at the bridge landing and proceeds south along the eastern edge of the Philippi parcel where it makes a connection with N 147th Street. The trail then proceeds west along N 147th Street until it reaches 1st Ave NE.
- Central Alignment: The trail alignment begins at the bridge landing and proceeds due west between the Church of Christ, Unitarian and Philippi parcels where it makes a connection with 1st Ave NE near the intersection of N 148th Street.



Figure 11-1: Initial Alignment Screening Options

An initial screening evaluation of these alignments was made with the intent identifying any fatal-flaws such that they can be eliminated from a more detailed evaluation. This screening evaluation is described below.

Northern Alignment

The primary challenges and concerns with this trail alignment are as follows:

- **User Safety and Security:** One of the primary pieces of feedback from the Church of Christ was that they would like to see a fence installed between their property and the trail. Additionally, a fence and/or railing would likely be required between the trail and WSDOT ROW. Combined with the existing fence that separates the Church of Christ parcel and the Aegis Living Facility, the entirety of the trail would be enclosed on all sides by fencing and/or railing. This would result in a confined experience for trail users and represents a safety concern as it limits egress opportunities.
- **Connectivity and Travel Times:** The traveled distance between where the bridge lands and where the trail connects with 1st Ave NE is approximately 700 feet long. This is approximately 550 feet longer than the central trail alignment. This extra distance increases user travel times and provides a less direct connection when compared to the central alignment.
- **Ease of Stakeholder Approval:** Because the trail makes a less direct connection to the bridge, it is likely that users coming from points south and east of N148th will trespass across the Unitarian and Philippi parcels in order to shorten their travel time. This concern was expressed by Church of Christ, Unitarian and Philippi representatives during project briefings.

- **Ease of Stakeholder Approval:** As shown in Figure 2-15, Thornton Creek enters two, 6-foot diameter culverts just north of the cell phone tower adjacent to the shoulder of southbound I-5. The width of the stream buffer for this above ground portion increases to 75-feet. Any trail improvements in this buffer would need to be mitigated accordingly. Additionally, any changes to the hydrology of the creek as a result of the project would need to be mitigated which would be costly and difficult to permit.

Because of these challenges and concerns, the Northern Alignment was eliminated from further consideration and evaluation.

Southern Alignment

The primary challenges and concerns with this trail alignment are as follows:

- **Project Costs:** Immediately east of the existing church building on the Philippi parcel, the grade slopes steeply toward the freeway. In order to tie-in to the bridge, the trail would need to be elevated on-grade or on structure along this slope. The further east the trail is located, the higher the trail would need to be elevated when compared to the existing grade which increases project costs. Alternatively, the trail could be placed immediately adjacent to the existing building where the grades are more favorable, however, this would divide the parcel thereby rendering the eastern remnant unusable. This remnant parcel would need to be purchased by the City which would increase project costs without providing significant benefit.
- **Connectivity and Travel Times:** The traveled distance between where the bridge lands and where the trail connects with 1st Ave NE is approximately 1000 feet long. This is approximately 750 feet longer than the central trail alignment and 300 feet longer than the northern alignment. This extra distance increases user travel times and provides a less direct connection when compared to the central alignment.
- **Ease of Stakeholder Approval:** Because the trail makes a less direct connection to the bridge, it is likely that users coming from points south and east of N148th will trespass across the Unitarian and Philippi parcels in order to shorten their travel time. This concern was expressed by Church of Christ, Unitarian and Philippi representatives during project briefings.

Because of these challenges and concerns, the Southern Alignment was eliminated from further consideration and evaluation.

Central Alignment

The primary challenges and concerns with this trail alignment are as follows:

- **Ease of Stakeholder Approval:** The trail could impact parking on both the Unitarian and Philippi parcels. Based on feedback received from both these property owners, parking is already at a premium and any lost parking spaces as a result of this project would need to be replaced in-kind.
- **Project Costs:** The existing utility easement along the southern edge of the Church of Christ parcel likely contains buried power and fiber optic infrastructure that feeds the cell phone tower at the southeast corner of the parcel. These utilities may need to be relocated to allow for construction of the trail.

While these challenges will need to be carefully considered during design, they are not considered insurmountable. The Central Alignment was selected for further evaluation and all west side trail options follow this general layout.

WEST SIDE TRAIL ALIGNMENT OPTIONS

Three west side trail alignment options were evaluated as part of the TS&L process and are described below.

Option 1 – Minimal Build-Out

Figure 11-2 and Figure 11-3 show the plan-view layout and typical section for this option.

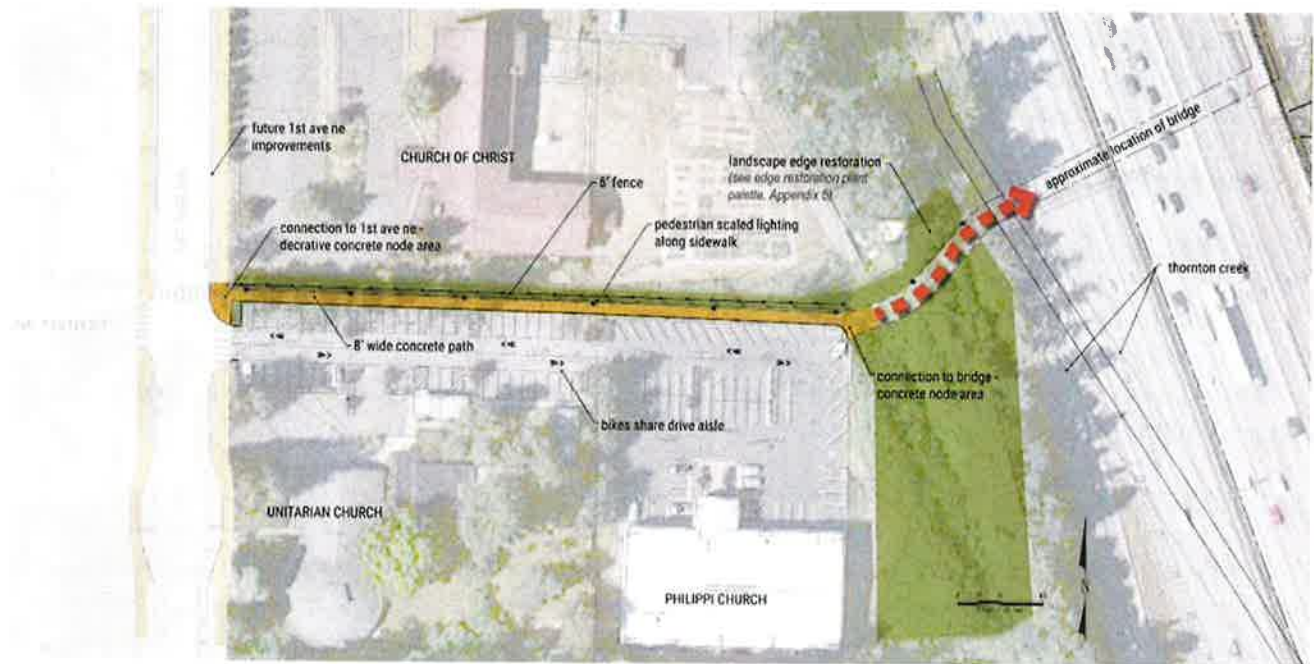


Figure 11-2: Option 1 – Minimal Build-Out Plan View

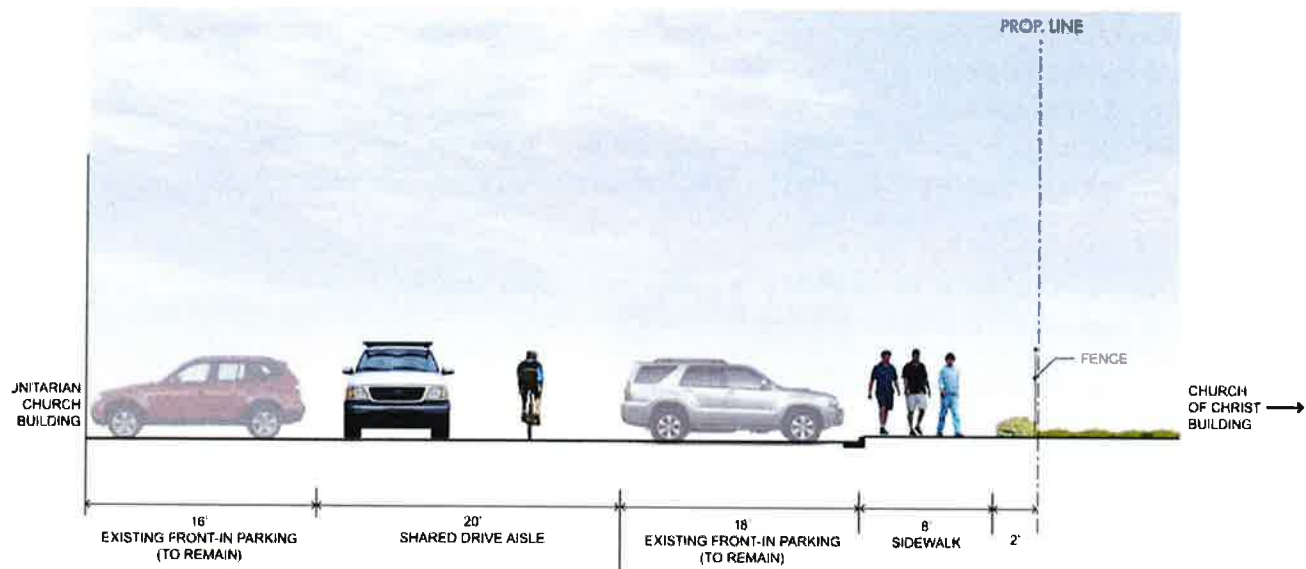


Figure 11-3: Option 1 – Minimal Build-Out Typical Section

In this option, pedestrians and bicyclists make the connection from 1st Ave NE to the bridge via two, separate facilities. Pedestrians would utilize an 8-foot wide concrete pathway that is immediately south of the property line between the Church of Christ and the Unitarian and Philippi parcels. Bicycle users make the connection to the bridge via the existing parking lot drive-aisle. Both user groups would be rejoined at the bridge landing at the northeast corner of the Philippi parcel.

This option is identified as the minimal build-out as it would provide a functional connection from 1st Ave NE to the bridge while minimizing impacts to the surrounding properties. It is recommended that the City acquire property rights (i.e. easement or fee purchase) for a future, full trail build-out. With these rights, the City could build the trail at a later date or obligate any future developers to construct a more formal connection at that time. This arrangement could provide flexibility for this developer to integrate the trail into their designs while simultaneously reducing construction costs for the City.

Option 1 – Minimal Build-Out Evaluation

User Safety and Security: Very Unfavorable

With this alternative, bicycle users share the parking lot drive aisle on both the Philippi and Unitarian parcels. This increases the risk of conflict between vehicles and bicyclists. Bicyclists may instead choose to use the 8-foot wide sidewalk as a means of avoiding the parking lot which increases the risk of conflict between pedestrians and bicyclists. The two potential sources of conflict increases the liability of the City and for the church parcel owners.

Connectivity and Travel Times: Unfavorable

With this alternative, bicycle and pedestrian users are separated into two facilities. This may increase confusion which detracts from the sense of connectivity to the main span of the bridge. Additionally, bicycle users may elect to use the sidewalk in lieu of using the shared drive aisle. Because the sidewalk is narrower than a combined multi-use trail, bicyclists would be forced to slow down to navigate amongst the pedestrian users. Pedestrians may also slowdown in order to avoid cyclists. This would likely decrease travel times for both user groups.

Ease of Stakeholder Approval: Very Unfavorable

As mentioned previously, having the bicyclists share the parking lot drive aisle increases the risk of conflict between vehicles and the bicycle users. This concern was expressed by representatives of both the Philippi and Unitarian church properties during project briefings. The representatives were concerned about the safety and liability of their parishioners and may not be willing to accept this risk. One advantage of this option is that permanent parking impacts are eliminated. This benefit is considerably outweighed by the risks mentioned above.

Additionally, an access easement for the use of the drive aisle will be required which further encumbers the Philippi parcel. See the ROW evaluation below for further discussion.

ROW Considerations: Very Unfavorable

With this alternative, two separate easements are required. The first easement is for the future, full build-out of the trail and would be approximately centered on the proposed pedestrian sidewalk. This easement would allow for parking within the existing spaces on both the Unitarian and Philippi parcels that were preserved. Parking for both the Unitarian and Philippi parcels would be allowed within the trail easement. The second easement would be an access easement through the parking lot drive aisles on both the Philippi and Unitarian parcels. This access easement could affect the valuation of both parcels as the properties would have limited use with this type of easement. Additionally, the purchase of these two easements is the highest ROW costs for all alternatives. See the cost evaluation below for further details.

Below is a summary of the estimated ROW needs for this alternative for each affected parcel:

- Church of Christ Parcel: 2,742 square feet of trail easement

- Unitarian Church Parcel: 6,223 square feet of trail easement, 7,379 square feet of access easement
- Philippi Parcel: 6,595 square feet of trail easement, 4,731 square feet of access easement

The ROW needs above do not include temporary construction easements. These have been estimated and included in the project costs which are provided below and in Appendix 4.

Operations and Maintenance: Favorable

With this alternative, a smaller facility is constructed as part of this project. This reduces operations and maintenance costs when compared to the other alternatives.

Aesthetics: Unfavorable

By its very nature, this alternative is not a fully-realized trail connection to the pedestrian bridge and may be seen as an interim build-out. This may detract from the user experience when compared to the other alternatives.

Project Costs: Favorable

The estimated project costs for this alternative are:

- Construction Costs = \$582,000
- Contingency = \$233,000
- Design, Construction Management (CM) = \$367,000
- ROW Costs = \$1.88M
- Total Costs (incl. contingency, design, CM) = **\$3.06M**

This is the lowest cost alternative. See Section 14 for a more detailed breakdown including all soft costs.

Option 2 – Full Build-Out South

Figure 11-4 and Figure 11-5 show the plan-view layout and typical section for this option.



Figure 11-4: Option 2 – Full Build-Out South Plan View

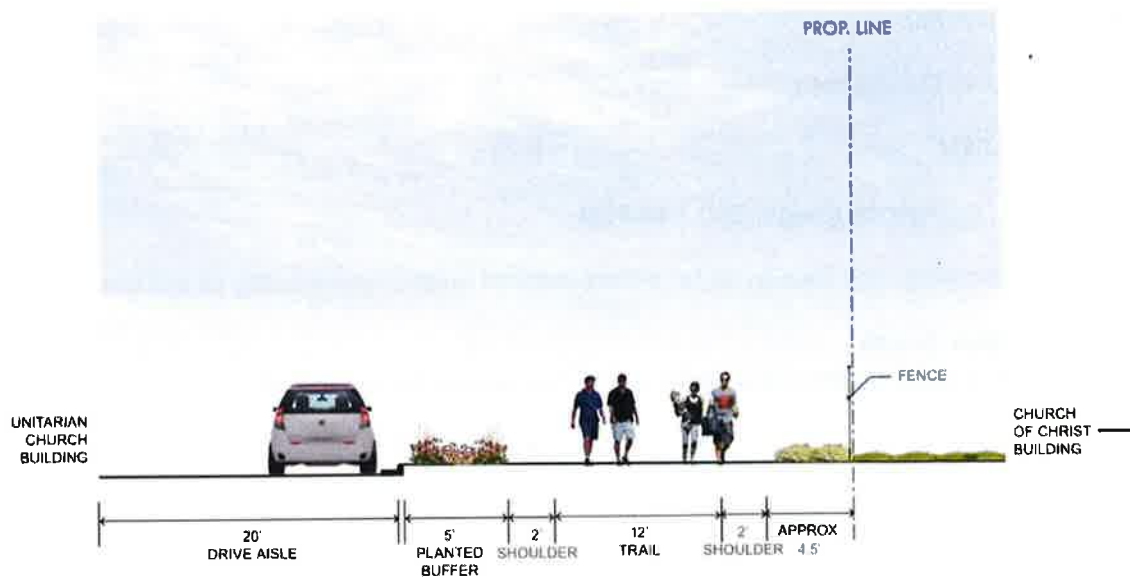


Figure 11-5: Option 2 – Full Build-Out South Typical Section

In this option, pedestrian users and bicyclists make the connection from 1st Ave NE to the bridge via a shared-use path. The northern edge of the path is essentially aligned with the property line between the Unitarian, Philippi and Church of Christ parcels. The increased width of the trail and associated planted buffer eliminates approximately 32 parking spaces on the Unitarian parcel and 12 parking spaces on the Philippi parcel. In order to mitigate for this lost parking, a parking lot would need to be constructed on the eastern portion of the Philippi parcel.

Option 2 – Full Build-Out South Evaluation

User Safety and Security: Favorable

With this alternative, bicyclists no longer share the drive aisle of the parking lot with vehicles but instead use the multi-use path. The multi-use path is wide enough to accommodate both bicyclists and pedestrians.

Connectivity and Travel Times: Favorable

With this alternative, the connection to the bridge is more formalized and creates a stronger, more obvious visual link when compared to Option 1. This enhances connectivity to the bridge and improves travel times.

Ease of Stakeholder Approval: Very Unfavorable

With this alternative, a significant number of parking spaces on both the Unitarian and Philippi parcels will be lost. While the loss of these parking spaces is mitigated by construction of an additional parking lot to the east of the Philippi church building, an easement between the Philippi and Unitarian property owners would need to be negotiated which would grant the Unitarian property access and parking rights to the Philippi parcel. This agreement may be difficult to reach. See ROW evaluation below for further discussion.

ROW Considerations: Very Unfavorable

It is recommended that the trail be purchased in fee rather than acquire an easement as the cost of the easement would be close to or at fee value.

As mentioned above, the Unitarian and Philippi property owners would need to negotiate an agreement between one another for the access and parking rights on the Philippi parcel. This is a 3rd party agreement which the City should not participate in and in which the City has no recourse should the two parties fail to reach an agreement.

Additionally, the parking and access easement that would need to be granted to the Unitarian Church by the Philippi would significantly encumber that parcel from future development. Initial feedback received from the Philippi Church representatives indicated that they were interested in developing their parcel to take advantage of the recent zoning changes. See the cost evaluation below for further details.

Below is a summary of the estimated ROW needs for this alternative for each affected parcel:

- Church of Christ Parcel: 1,919 square feet of fee acquisition
- Unitarian Church Parcel: 6,154 square feet of fee acquisition
- Philippi Parcel: 6,301 square feet of fee acquisition

The ROW needs above do not include temporary construction easements. These have been estimated and included in the project costs which are provided below and in Appendix 4.

Operations and Maintenance: Unfavorable

With this alternative, a larger facility is constructed as part of this project. This increases operations and maintenance costs when compared to Option 1.

Aesthetics: Favorable

This alternative constructs a fully-realized trail connection to the bridge. This has more aesthetic appeal and can be visually linked to the bridge design which adds to the user experience especially when compared to Option 1.

Project Costs: Very Unfavorable

The estimated project costs for this alternative are:

- Construction Costs = \$2.13M
- Contingency = \$852,000
- Design, CM = \$1.34M
- ROW Costs = \$1.31M
- Total Costs = **\$5.63M**

This is the highest cost alternative. See Section 14 for a more detailed breakdown including all soft costs.

Option 3 – Full Build-Out North

Figure 11-6 and Figure 11-7 show the plan-view layout and typical section for this option.



Figure 11-6: Option 3 – Full Build-Out North Plan View

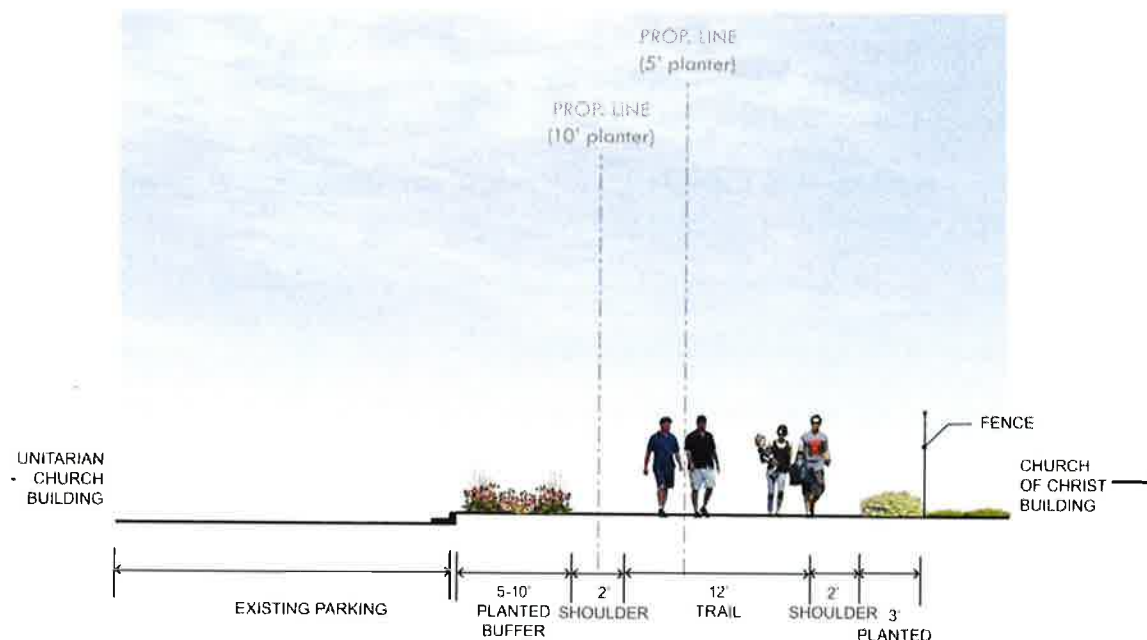


Figure 11-7: Option 3 – Full Build-Out North Typical Section

In this option, pedestrian users and bicyclists make the connection from 1st Ave NE to the bridge via a shared-use path. This path has been shifted further to the north onto the Church of Christ parcel in order to eliminate parking impacts on the Unitarian and Philippi parcels. Pushing the trail further to the north also provides an opportunity to preserve some of the existing mature evergreen trees that are along the existing property line.

This option would likely require relocation of the underground utilities and the associated easement further north such that it is located outside of the limits of the trail.

Option 3 – Full Build-Out North Evaluation

User Safety and Security: Favorable

With this alternative, bicyclists no longer share the drive aisle of the parking lot with vehicles but instead use the multi-use path. The multi-use path is wide enough to accommodate both bicyclists and pedestrians.

Connectivity and Travel Times: Favorable

With this alternative, the connection to the bridge is more formalized and creates a stronger, more obvious visual link when compared to Option 1. This enhances connectivity to the bridge and improves travel times.

Ease of Stakeholder Approval: Neutral

With this alternative, parking lot impacts are avoided by shifting the trail further to the north. This will likely be seen as favorable by the Philippi and Unitarian parcel owners but may be seen as unfavorable by the Church of Christ parcel owners.

Additionally, by locating the trail further to the north, the existing underground utility easement and the utilities contained within would need to be relocated. This relocation may not be seen as favorable to either the Church of Christ parcel owners and/or the cell phone tower owner.

These competing interests result in a neutral rating.

ROW Considerations: Neutral

It is recommended that the trail be purchased in fee rather than acquire and easement as the cost of the easement would be close to or at fee value. A utility easement on the Church of Christ parcel would need to be purchased in order to relocate the utilities that serve the cell phone tower.

From a ROW cost perspective, this is the least-cost alternative. However, negotiating property rights from the Church of Christ parcel may be challenging.

Below is a summary of the estimated ROW needs for this alternative for each affected parcel:

- Church of Christ Parcel: 8,113 square feet of fee acquisition
- Unitarian Church Parcel: 2,127 square feet of fee acquisition
- Philippi Parcel: 2,830 square feet of fee acquisition

The ROW needs above do not include temporary construction easements. These have been estimated and included in the project costs which are provided below and in Appendix 4.

Operations and Maintenance: Unfavorable

With this alternative, a larger facility is constructed as part of this project. This increases operations and maintenance costs when compared to Option 1.

Aesthetics: Favorable

This alternative constructs a fully-realized trail connection to the bridge. This has more aesthetic appeal and can be visually linked to the bridge design which adds to the user experience especially when compared to Option 1.

Project Costs: Neutral

The estimated project costs for this alternative are:

- Construction Costs = \$1.20M
- Contingency = \$481,000
- Design, CM = \$758,000
- ROW Costs = \$1.14M
- Total Costs = **\$3.58M**

This is the second highest cost alternative. See Section 14 for a more detailed breakdown including all soft costs.

TIED ARCH

The Tied Arch concept offers the cleanest visual appearance of the designs, utilizing paired arches for the entire span, suspending the deck with cable hangers. The simplicity of the form creates an iconic profile against the sky when seen from I-5, and the slender cables contribute to the overall lightness of the bridge. If the City opts for weather protection over the bridge deck, a potential tensile-fabric canopy is shown that is in keeping with the visual lightness of the overall structure. Pedestrian lighting and the required throw barrier would be integrated with this canopy. Figure 12-3 through Figure 12-6 show rendered views of the tied arch bridge concept both with and without a canopy.

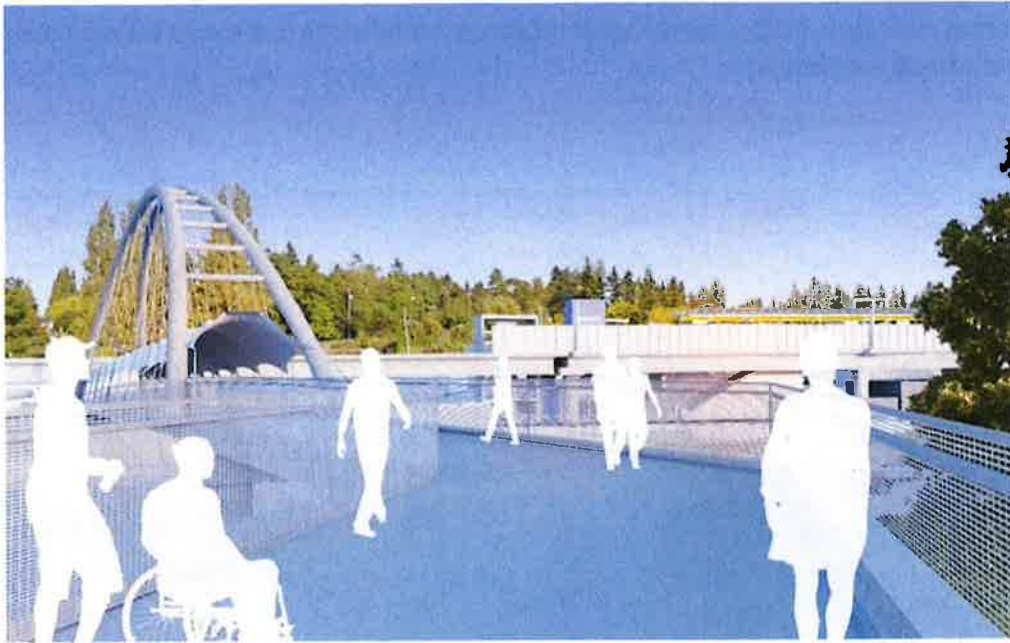


Figure 12-3: Tied Arch with Canopy – View from Bridge Looking East



Figure 12-4: Tied Arch with Canopy – View from I-5 Looking North



Figure 12-5: Tied Arch without Canopy – View from Bridge Looking East



Figure 12-6: Tied Arch without Canopy – View from I-5 Looking North

Tied Arch Evaluation

User Safety and Security: Neutral

User safety and security is the same across all bridge types.

Connectivity and Travel Times: Neutral

Connectivity and travel time are the same across all bridge types.

Ease of Stakeholder Approval: Neutral

Ease of stakeholder approval is the same across all bridge types.

ROW Considerations: Neutral

Per Chapter 11 of the WSDOT ROW Manual, the City would need to acquire but would not need to pay for an airspace lease across WSDOT ROW if the bridge is part of a Comprehensive Trail Plan adopted by the City.

ROW requirements are the same across all bridge types.

Operations and Maintenance: Favorable

In general, the tied arch bridge has fewer structural members when compared to the truss and the combined arch. A commitment to periodic and ongoing steel painting regimen carries cost implications, but this structure type offers the fewer members of the presented structure alternatives to maintain and repaint in the future.

Aesthetics: Favorable

Based on feedback from City staff and stakeholders, this bridge is generally seen as having the highest aesthetic value.

Project Costs: Neutral

The estimated project costs for this alternative are:

- Construction Costs = \$6.43M
- Contingency = \$2.57M
- Design, CM = \$4.05M
- ROW Costs = \$0
- Total Costs = **\$13.05M**

As all of the structure alternatives spring from the same generic family of structure configuration and type, the cost differential between the structure alternatives as presented is very minor in relation to overall total project cost. However, this is the least cost alternative for structure cost. See Section 14 for a more detailed breakdown including all soft costs.

COMBINED ARCH

The Combined Arch concept contains elements of the tied arch, with a major arch over the freeway and but with a secondary, smaller arch for the short span to grade on the west. Like the tied arch, this type would present a graceful form when seen from the freeway, with the smaller arch providing additional visual interest. The vertical hangers could be cable or steel sections, and the arches would be oriented vertically, not angled together as in the tied arch. The canopy for this type could also be a simple plane suspended between the

arches, with lighting and throw barrier integrated similar to the truss bridge. Figure 12-7 through Figure 12-10 show rendered views of the combined arch bridge concept both with and without a canopy.



Figure 12-7: Combined Arch with Canopy – View from Bridge Looking East



Figure 12-8: Combined Arch with Canopy – View from I-5 Looking North

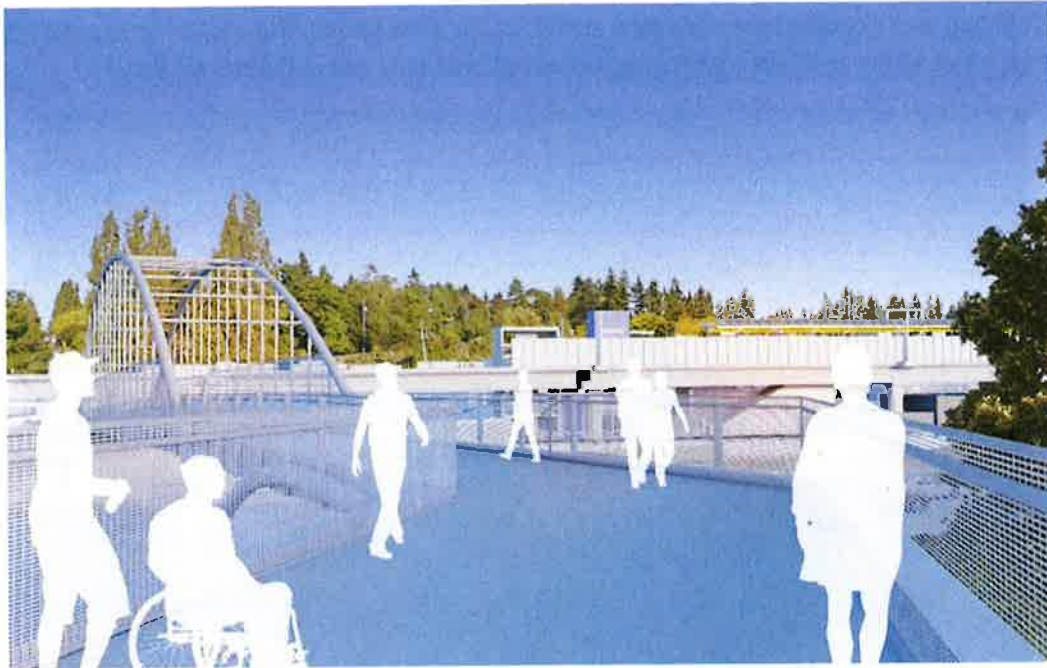


Figure 12-9: Combined Arch without Canopy – View from Bridge Looking East



Figure 12-10: Combined Arch without Canopy – View from I-5 Looking North

Combined Arch Evaluation

User Safety and Security: Neutral

User safety and security is the same across all bridge types.

Connectivity and Travel Times: Neutral

Connectivity and travel time are the same across all bridge types.

Ease of Stakeholder Approval: Neutral

Ease of stakeholder approval is the same across all bridge types.

ROW Considerations: Neutral

Per Chapter 11 of the WSDOT ROW Manual, the City would need to acquire but would not need to pay for an airspace lease across WSDOT ROW if the bridge is part of a Comprehensive Trail Plan adopted by the City.

ROW requirements are the same across all bridge types.

Operations and Maintenance: Unfavorable

In general, the combined arch has slightly more steel structural components when compared to the tied arch with the increased mass of the combined arch structure width slightly overbalancing with the reduced mass of the combined arch structure vertical profile. But the slight difference in exposed steel mass does not substantially change the cost implications of the commitment to periodic and ongoing steel painting regimen requirements for exposed steel structure.

Aesthetics: Neutral

Based on feedback from City staff and stakeholders, this bridge was generally seen as having the second highest aesthetic value.

Project Costs: Neutral

The estimated project costs for this alternative are:

- Construction Costs = \$6.91M
- Contingency = \$2.76M
- Design, CM = \$4.35M
- ROW Costs = \$0
- Total Costs = **\$14.03M**

As all of the structure alternatives spring from the same generic family of structure configuration and type, the cost differential between the structure alternatives as presented is very minor in relation to overall total project cost. However, this is the second least structure cost alternative, being slightly higher than for the tied arch alternative, but fairly close in context of overall project cost. See Section 14 for a more detailed breakdown including all soft costs.

TRUSS

The Truss configuration is the most straightforward and traditional of the structure types under consideration. Harking back to highway and railroad bridges of the past, it creates a robust image on the skyline. The gently

arched top chords of the trusses soften the utilitarian aspect that truss bridges can have and form a strong counterpoint to the adjacent light rail station. If desired, the canopy on this bridge could be a simple planar structure with recessed or pendant downlights. The throw barrier would be attached to the inside faces of the trusses. Figure 12-11 through Figure 12-14 show rendered views of the truss bridge concept.

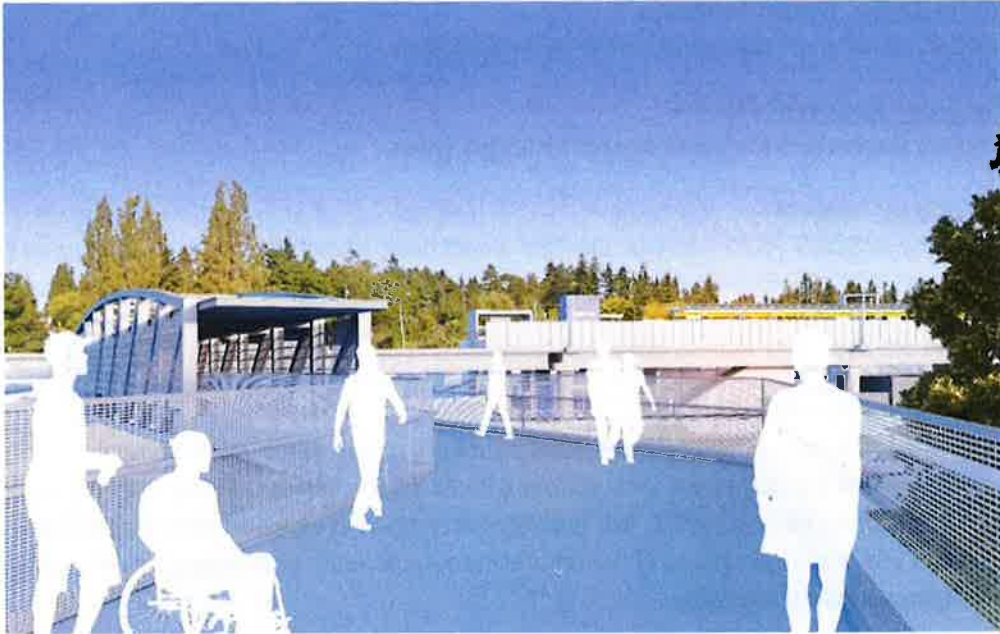


Figure 12-11: Truss with Canopy – View from Bridge Looking East



Figure 12-12: Truss with Canopy – View from I-5 Looking North



Figure 12-13: Truss without Canopy – View from Bridge Looking East



Figure 12-14: Truss without Canopy – View from I-5 Looking North

Truss Evaluation

User Safety and Security: Neutral

User safety and security is the same across all bridge types.

Connectivity and Travel Times: Neutral

Connectivity and travel time is the same across all bridge types.

Ease of Stakeholder Approval: Neutral

Ease of stakeholder approval is the same across all bridge types.

ROW Considerations: Neutral

Per Chapter 11 of the WSDOT ROW Manual, the City would need to acquire but would not need to pay for an airspace lease across WSDOT ROW if the bridge is part of a Comprehensive Trail Plan adopted by the City.

ROW requirements are the same across all bridge types.

Operations and Maintenance: Unfavorable

In general, the truss has the highest number of structural steel components when compared to the tied arch and combined arch bridge types. This increase of exposed steel mass for the truss bridge type is enough to carry a more noticeable cost implication with the commitment to periodic and ongoing steel painting regimen requirements for exposed steel structure.

Aesthetics: Unfavorable

Based on feedback from City staff and stakeholders, this bridge was generally seen as having the lowest aesthetic value.

Project Costs: Unfavorable

The estimated project costs for this alternative are:

- Construction Costs = \$7.72M
- Contingency = \$3.09M
- Design, CM = \$4.86M
- ROW Costs = \$0
- Total Costs = **\$15.68M**

As all of the structure alternatives spring from the same generic family of structure configuration and type, the cost differential between the structure alternatives as presented is minor in relation to overall project cost. However, this is the highest cost alternative, both for initial construction cost and for ongoing periodic life cycle maintenance costs. See Section 14 for a more detailed breakdown including all soft costs.

CONSTRUCTION CONSIDERATIONS

Construction staging will be a significant challenge and will likely drive many of the design decisions and will have substantial impacts on the project costs. Below is a summary of the primary construction constraints and some methods that could be employed to help solve these issues.

West Side Construction Staging Areas

In order to construct the foundations and assemble the main span, a temporary staging area of considerable size will need to be constructed. There are two potential areas on the west side of I-5 for a staging area that is large enough to accommodate these construction activities.

As shown in Figure 12-15, the easternmost portion of the Church of Christ parcel is currently an open, grassy field and an asphalt parking lot. This area could accommodate the staging required to construct the western bridge pier and assemble the main span. Access to the staging area would be off of 1st Ave NE.

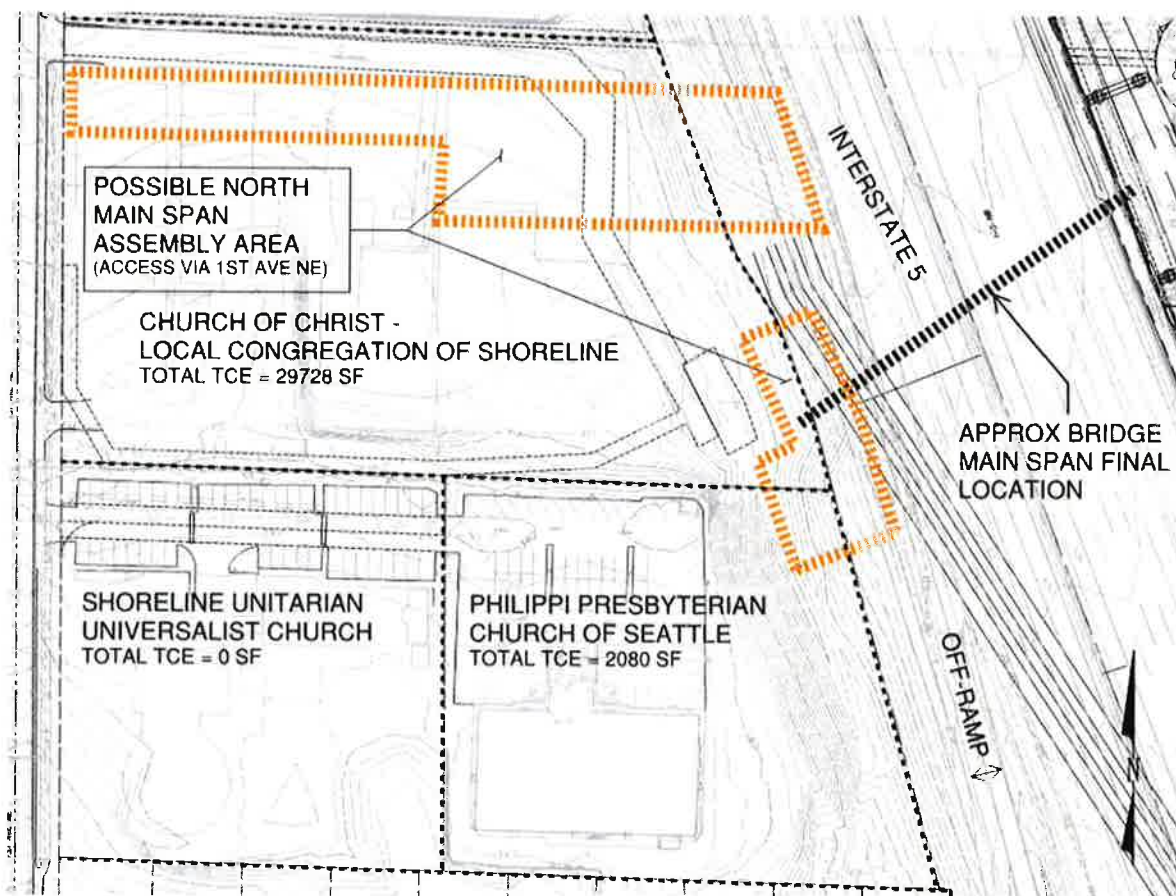


Figure 12-15: Potential Bridge Construction Staging Area on Church of Christ Parcel

Challenges associated with using this location include:

- **Grade Difference:** The elevation of the Church of Christ parcel is approximately 15-20 feet higher than I-5 in this area. This grade difference would make transportation of the assembled main span to the piers on which it rests difficult. Temporary trestles and or ramps down to the freeway would need to be constructed which would require significant clearing of trees and brush on the existing slope.
- **Thornton Creek:** Thornton Creek would be immediately adjacent to the staging area. Impacts to the creek would need to be minimized and working around the creek could be a significant challenge as temporary work platforms/trestles would need to be constructed to avoid impacting the creek.

- **Property Owner Impacts:** Assembly of the main span and construction of the bridge foundations will require the use of large equipment which may cause disruptions to the owners of the Church of Christ parcel. While efforts would be made to lessen these impacts, the owner may not grant the necessary temporary easements on their property.
- **Cell Phone Tower:** The cell phone tower in the southeast corner of the parcel is a sizable obstruction that would need to be worked around and protected. Finding suitable crane positions that don't interfere with the tower could be difficult.

The second construction staging area that could be used to is shown in Figure 12-16. This area is just east of the church building on the Philippi parcel and extends down to the off-ramp to NE 145th Street. The topography in this area slopes down to the freeway and the hillside is heavily vegetated with brush and trees. Access to this staging area would be from the I-5 off-ramp.

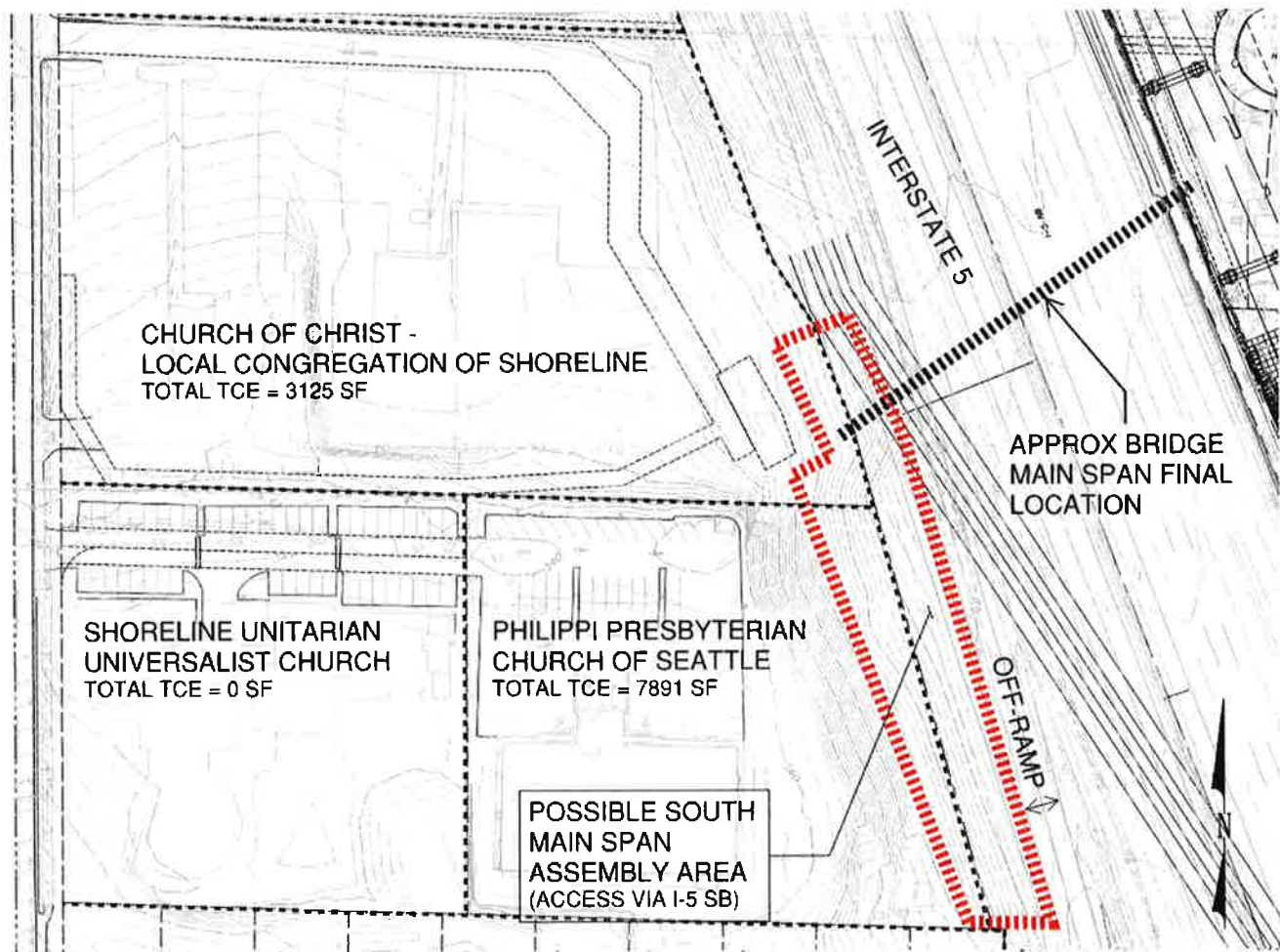


Figure 12-16: Potential Bridge Construction Staging Area Adjacent to the Philippi Church Parcel

Challenges associated with using this location include:

- **Steep Slopes:** In order to create a suitable work area, the staging area would need to be leveled. Because of the slope, this would likely require the use of temporary walls and/or slopes. These elements would need to be removed following construction and the area would need to be restored.
- **Property Owner Impacts:** Assembly of the main span and construction of the bridge foundations will require the use of large equipment which may cause disruptions to the owners of the Philippi parcel and other nearby homes. While efforts would be made to lessen these impacts, the Philippi parcel owners may not grant the necessary temporary easements on their property.

Of the two west side staging areas identified, the one adjacent to the Philippi parcel and the NE 145th Street off-ramp appears to be most promising based on the information available. Access from this area to bridge location is advantageous as the bridge could be transported to the piers without having to navigate slopes or the cell phone tower. Additionally, Thornton Creek in this area is located further east and is contained within two culverts.

East Side Staging Areas

As shown in Figure 12-17, the eastern bridge pier is located between the shoulder of the northbound on-ramp and the noise wall immediately adjacent to the Shoreline South/145th Street Station. The staging area required for the construction of this pier would need to be located west of the noise wall and would need to be a minimum of 25-feet in width. The on-ramp would likely need to be temporarily relocated further west in order to accommodate this staging area. It is likely that the majority of the construction of the eastern pier would be night work.

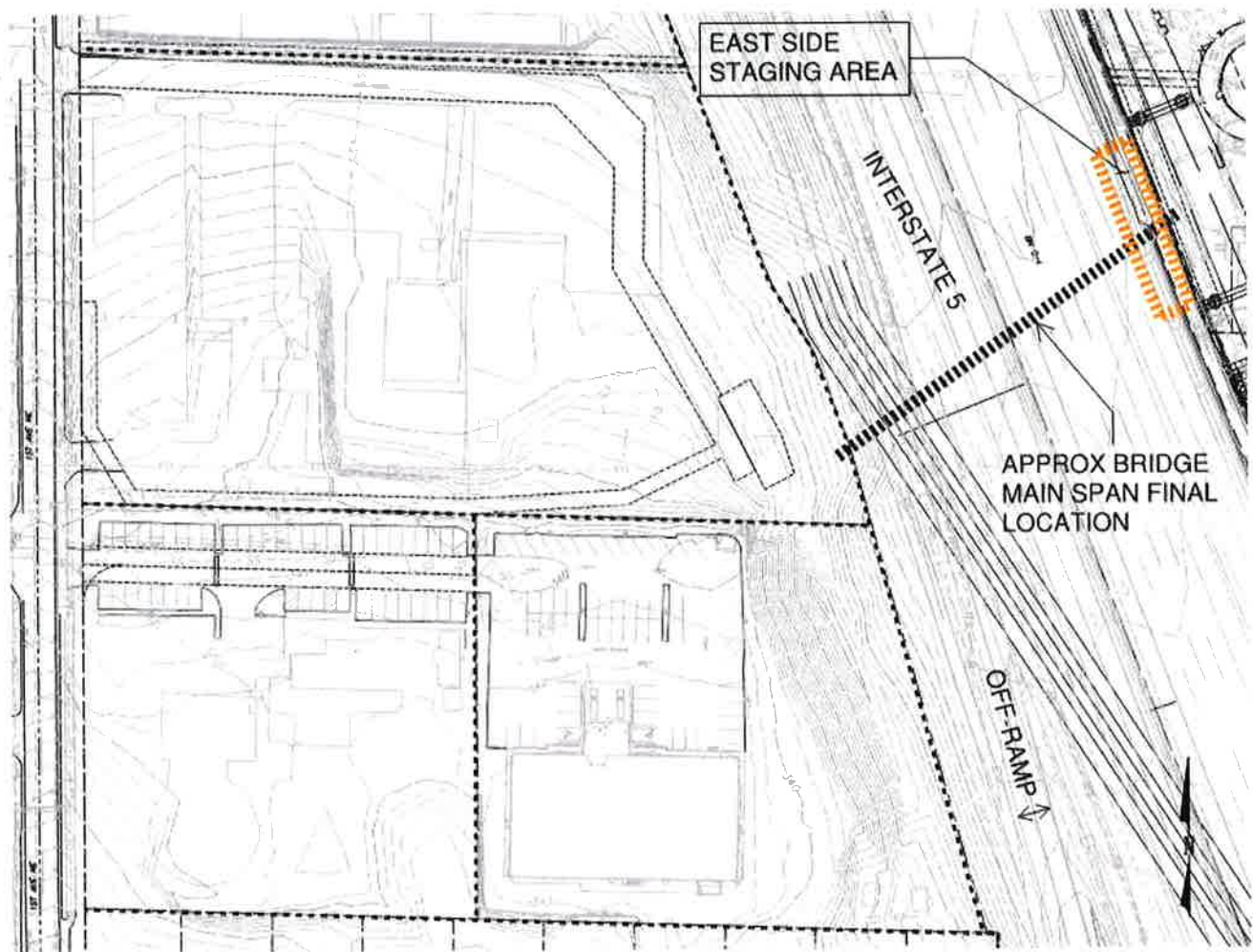


Figure 12-17: Potential Bridge East Side Construction Staging Area

Working Over I-5

The erection of the main span will have to occur during an extended closure window of 12-15 hours of both directions of I-5 including both on and off ramps at NE 145th Street. The closure would likely occur during a weekend night. Potential detour routes for northbound and southbound I-5 are shown in Figure 12-18.

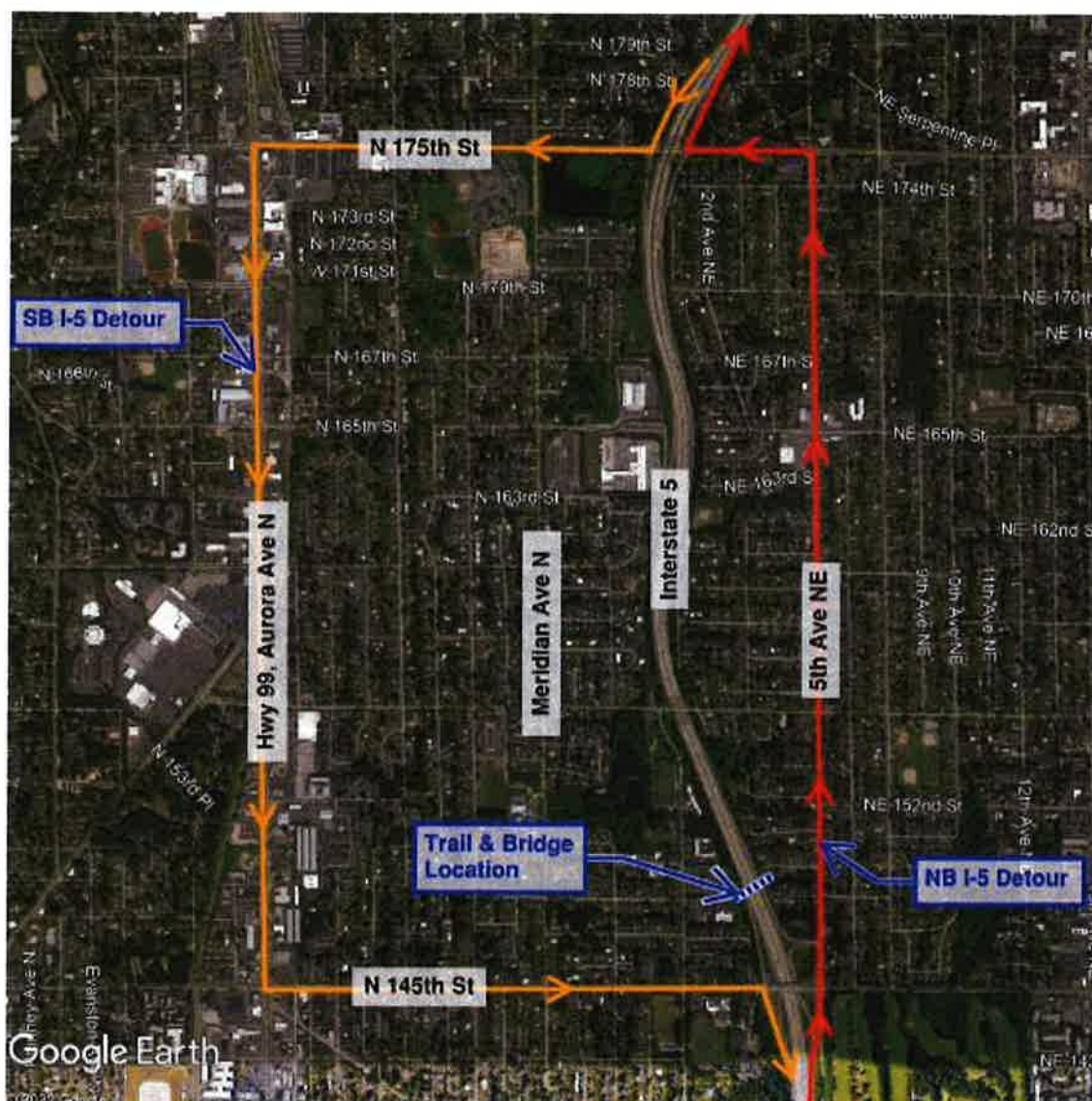


Figure 12-18: Potential I-5 Detour Routes During Full Closure

During the closure, the assembled main span could be transported from the staging area to the bridge piers using self-propelled modular transporters (SPMTs) and lifted into place using hydraulic cranes. SPMTs utilize a set of connected, hydraulically driven wheeled axles which can carry significant loads by utilizing multiple axles to help spread the weight of the structure over a wide area. This transportation technique was recently utilized on a similar pedestrian bridge project for the City of Everett where a 250-foot long truss was transported across several lines of railroad tracks. In order to transport the structure into place, the median barrier that separates northbound and southbound I-5 would need to be temporarily removed and then restored prior to re-opening the freeway. A schematic construction sequence for the main span is shown

Evening lane closures of I-5 would also be required during certain main span construction like bridge deck concrete pours and other high risk operations.

13. East Side Landing Alternatives

The primary constraint that drove the design development of the east side landings was maintaining a balance between providing ADA compliant ramp slopes and maximizing the vertical clearance to the aerial guideway structure above. The three options described below all present trade-offs between these competing project requirements.

Additionally, these landing designs need to integrate the Trail-Along-the-Rail (TAR) project which is currently being constructed by Sound Transit as part of the Lynnwood Link Project. The TAR is a multi-use trail that runs parallel to the light rail tracks and will connect the Shoreline South/145th Street Station to NE 155th Street. Future phases of the TAR will extend this trail to points north and south.

The typical trail section shown below would be used for all east side landing alternatives.

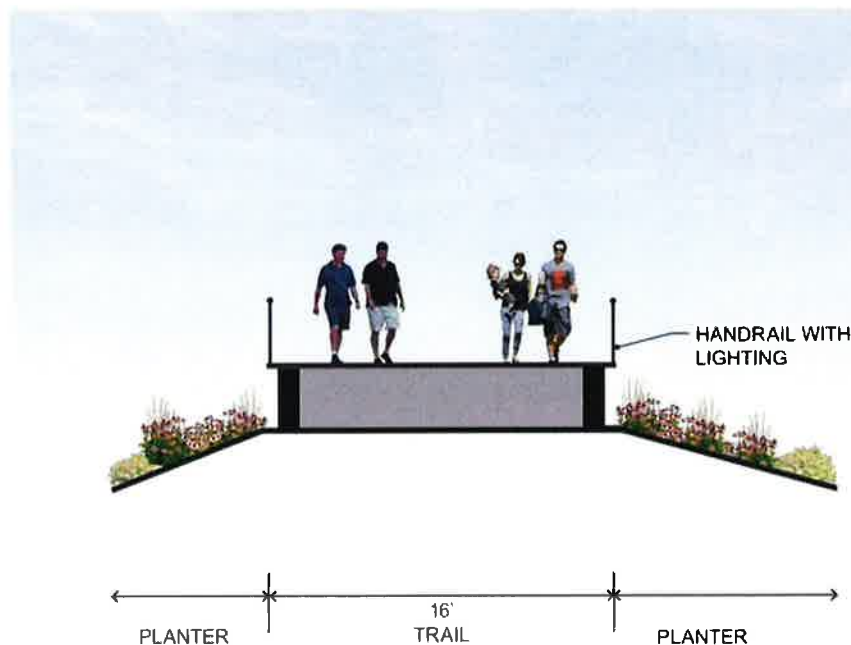


Figure 13-1: Typical Trail Section for East Side Landing

OPTION A: A-FRAME RAMP

In this option, the main span of the pedestrian bridge is located essentially equidistant between the two sets of columns and crossbeams that support the light rail structure above. Trail users would pass below the light rail structure with a minimum vertical clearance of 8.0 feet. Users then arrive at a landing where they reach their first decision point. Users headed to the light rail station would proceed down a ramp and arrive at the station plaza. Walking users who wish to make a connection to the cul-de-sac at N 149th Street or the TAR would have the option to take a set of stairs. ADA users who wish to make a connection to the TAR or N 149th Street would take the ramp down to the station plaza and then proceed north.

In order to minimize potential impacts to the light rail columns and crossbeams lightweight fill and column silos may be required.

Figure 13-2 and Figure 13-3 below show a plan view and profile of this landing option.



Figure 13-2: Option A – East Side Landing Plan View

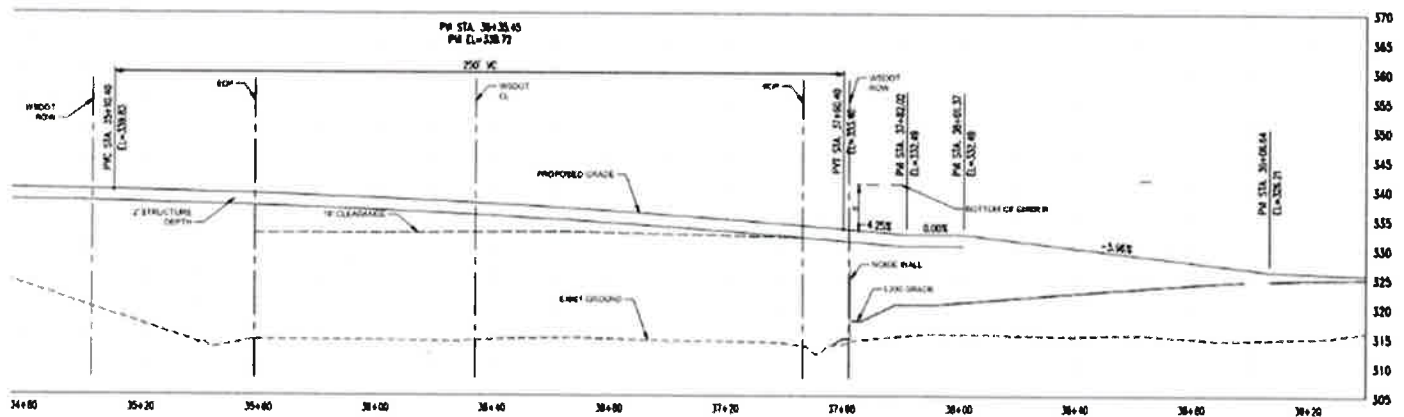


Figure 13-3 : Option A – East Side Landing Profile

Option A – East Landing Evaluation:

User Safety and Security: Neutral

This alternative provides a direct connection to the Shoreline South/145th Street Station but a less direct connection between the bridge and the TAR. Less circuitous pathways are often perceived by the user as being more secure. These two offsetting attributes result in a neutral rating.

Connectivity and Travel Times: Neutral

This alternative provides a direct connection to the Shoreline South/145th Street Station but a less direct connection between the bridge and the TAR. These two offsetting attributes result in a neutral rating.

Ease of Stakeholder Approval: Unfavorable

This alternative provides the least vertical clearance between the trail surface to the overhead light rail structure, which is less desirable from a user experience perspective. This will require a deviation from the City's adopted standards. This may also be seen as unfavorable to ST with regard to the safety and security of their aerial guideway structure.

ROW Considerations: Neutral

As mentioned previously, the City will own the underlying property in the landing area with a transit way easement to ST. ROW requirements are the same across all landing types

Operations and Maintenance: Neutral

This alternative has the second most lineal feet of pathway when compared to the other alternatives. Maintenance and operation costs are assumed to be a function of pathway length.

Aesthetics: Neutral

All east landing alternatives have similar aesthetic value.

Project Costs: Favorable

The estimated project costs for this alternative are:

- Construction Costs = \$1.81M
- Contingency = \$726,000
- Design, CM = \$1.14M
- ROW Costs = \$0
- Total Costs = **\$3.68M**

This is the least cost alternative. See Section 14 for a more detailed breakdown including all soft costs.

OPTION B: SWITCHBACK RAMP

In this option, the main span of the pedestrian bridge lands further to the south. In order to increase the vertical clearance, the trail turns 90 degrees and slopes down to the north prior to turning to the east where it crosses under the light rail track structure. The minimum vertical clearance from the path to the overhead structure is 9.3 feet. Similar to Option A, users headed to the light rail station would proceed down a ramp and arrive at the station plaza. Walking users who wish to make a connection to the cul-de-sac at N 149th Street or the TAR could take a set of stairs which are located midway down the ramp. ADA users who wish to make a connection to the TAR or N 149th Street would take the ramp down to the station plaza and then proceed north.

Similar to Option 1, lightweight fill and column silos may be required in order to minimize impacts to the light rail structures.

Figure 13-4 and Figure 13-5 below show a plan view and profile of this landing option.



Figure 13-4: Option B – East Side Landing Plan View

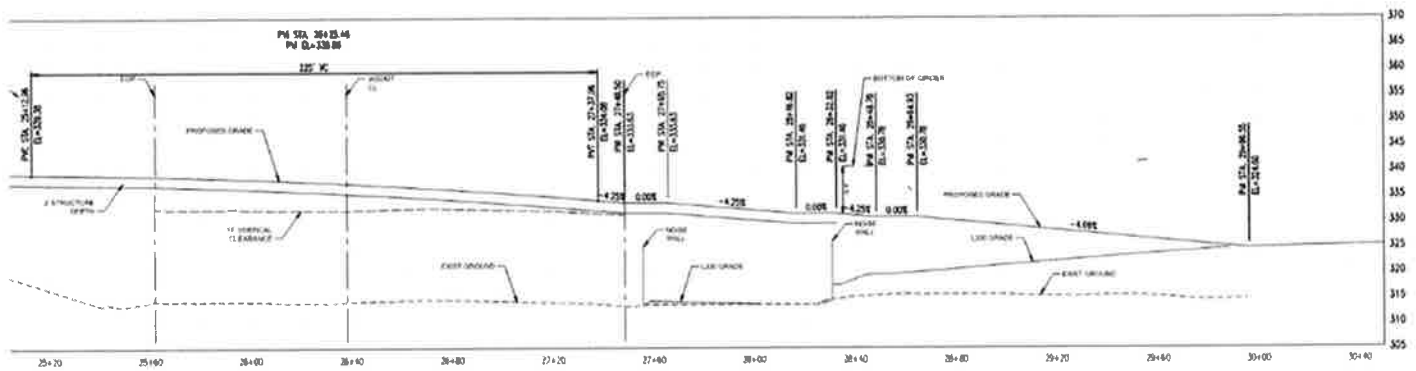


Figure 13-5 : Option B – East Side Landing Profile

Option B – East Landing Evaluation:

User Safety and Security: Unfavorable

This alternative provides the least direct connection to the Shoreline South/145th Street Station of all alternatives considered. Similar to Option A, the connection between the TAR and the bridge is less direct. Less circuitous pathways are often perceived by the user as being more secure.

Connectivity and Travel Times: Unfavorable

This alternative provides the most circuitous connection between the bridge, TAR and the Shoreline South/145th Street station. This reduces connectivity and increases travel times for all users.

Ease of Stakeholder Approval: Unfavorable

This alternative provides the greatest vertical clearance between the trail surface to the overhead light rail structure. This will still require a deviation from the City's adopted standards but is the closest of all alternatives considered to achieving the code requirement. Higher vertical clearance may also be seen as favorable to ST.

However, this alternative has significantly more structure within the 84-foot and 94-foot WSDOT FCL. This may be seen by WSDOT as an obstacle to future amenity improvements. WSDOT is a key stakeholder and project success depends on their approval.

ROW Considerations: Neutral

As mentioned previously, the City will own the underlying property in the landing area with a transit way easement to ST. ROW requirements are the same across all landing types

Operations and Maintenance: Unfavorable

This alternative has the most lineal feet of pathway when compared to the other alternatives. Maintenance and operation costs are assumed to be a function of pathway length. Additionally, this alternative has the highest structure length which also increases future maintenance and operation costs.

Aesthetics: Neutral

All east landing alternatives have similar aesthetic value.

Project Costs: Unfavorable

The estimated project costs for this alternative are:

- Construction Costs = \$2.31M

- Contingency = \$923,000
- Design, CM = \$1.45M
- ROW Costs = \$0
- Total Costs = **\$4.69M**

This is the highest cost alternative. See Section 14 for a more detailed breakdown including all soft costs.

OPTION C: DIRECT RAMP

In this option, the main span of the pedestrian bridge lands further to the south and crosses under the light rail structure with a minimum vertical clearance from the trail to the overhead structure of 8.8 feet. This option varies from Options A & B in that the TAR slopes up to make a direct connection to the trail coming off of the pedestrian bridge. Pedestrian bridge users can choose to head north along the TAR and make a connection to N 149th Street via a spur trail or head south to the station.

Similar to other options, lightweight fill and column silos may be required in order to minimize impacts to the light rail structures.

Figure 13-6 and Figure 13-7 below show a plan view and profile of this landing option.



Figure 13-6: Option C – East Side Landing Plan View

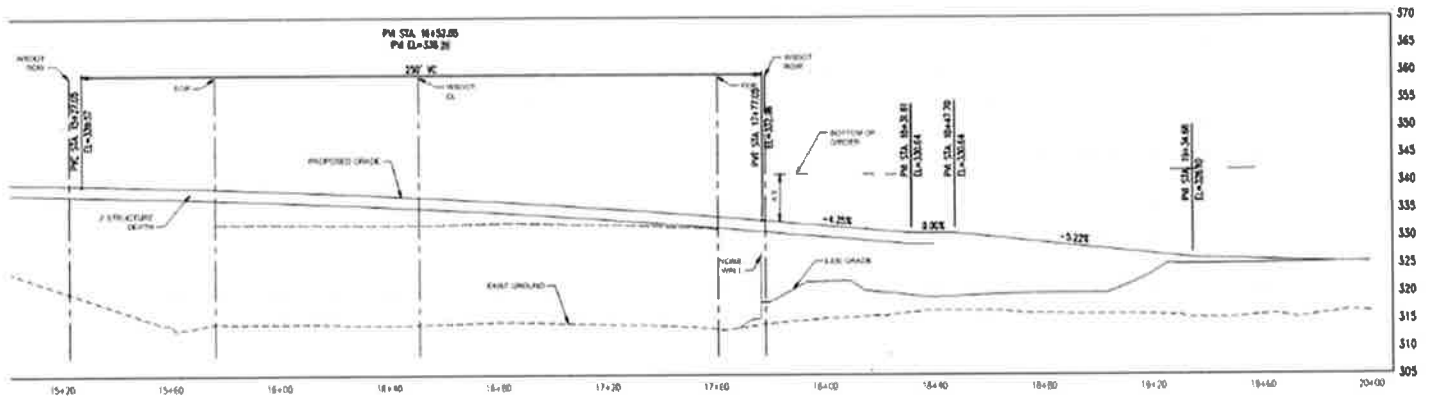


Figure 13-7 : Option C – East Side Landing Profile

Option C – East Landing Evaluation:

User Safety and Security: Favorable

This alternative provides the most direct connection between the bridge, TAR and the Shoreline South/145th Street Station of all alternatives considered. More direct connections are often perceived by users as being safer.

Connectivity and Travel Times: Favorable

This alternative provides the most direct connection between the bridge, TAR and the Shoreline South/145th Street Station. This increases connectivity and decreases travel times for all users.

Ease of Stakeholder Approval: Neutral

This alternative provides the second highest vertical clearance between the trail surface to the overhead light rail structure. This will require a deviation from the City's adopted standards. The vertical clearance may be seen as less desirable to ST.

ROW Considerations: Neutral

As mentioned previously, the City will own the underlying property in the landing area with a transit way easement to ST. ROW requirements are the same across all landing types

Operations and Maintenance: Favorable

This alternative has the smallest lineal feet of pathway when compared to the other alternatives. Maintenance and operation costs are assumed to be a function of pathway length.

Aesthetics: Neutral

All east landing alternatives have similar aesthetic value.

Project Costs: Neutral

The estimated project costs for this alternative are:

- Construction Costs = \$1.93M
- Contingency = \$770,000
- Design, CM = \$1.21M

- ROW Costs = \$0
- Total Costs = **\$3.91M**

This is the second highest cost alternative. See Section 14 for a more detailed breakdown including all soft costs.

EAST LANDING FUTURE VISIONS

In early 2018, the City completed a pre-design study for the 3rd Avenue NE Woonerf Project. As shown in Figure 13-8. This design incorporates a “shared” or “living” street which will connect NE 149th Street to NE 151st Street and interface directly with the east bridge landing.

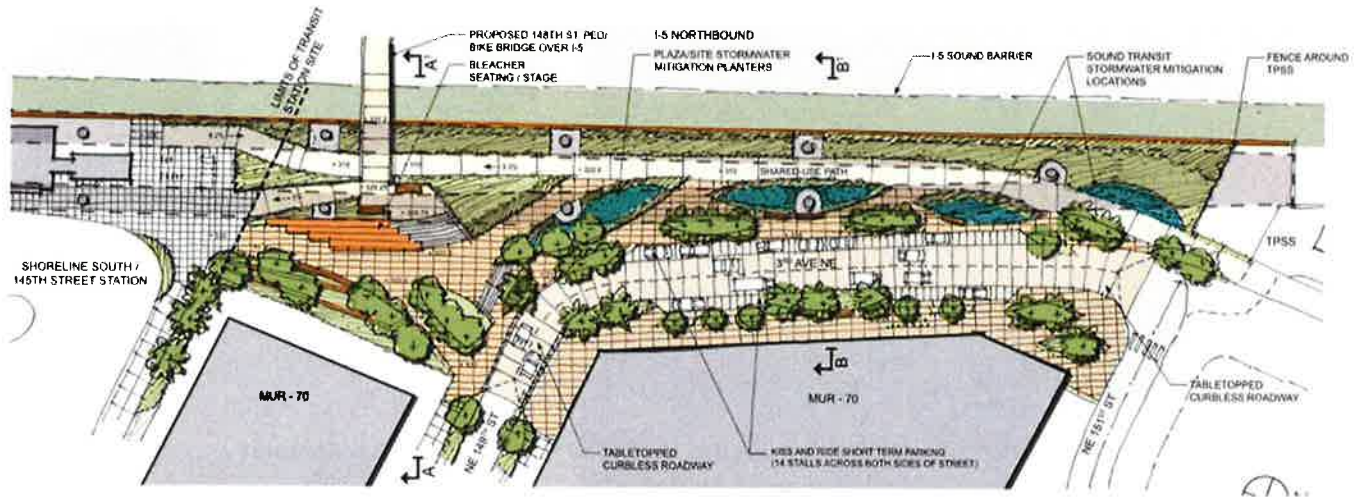


Figure 13-8: 3rd Avenue Woonerf Concept Plan View

While the 3rd Avenue NE Woonerf Project has not advanced beyond the conceptual design phase, the pedestrian bridge and eastern landing design must not preclude the development of this future vision for this area.

Figure 13-9 through Figure 13-11 shows how the east landing options could be modified to include a plaza space and public gathering area similar to what is shown in the woonerf concept. While these elements will not likely become a part of this project, estimated construction costs for these upgrades have been included in Appendix 4 for planning purposes.

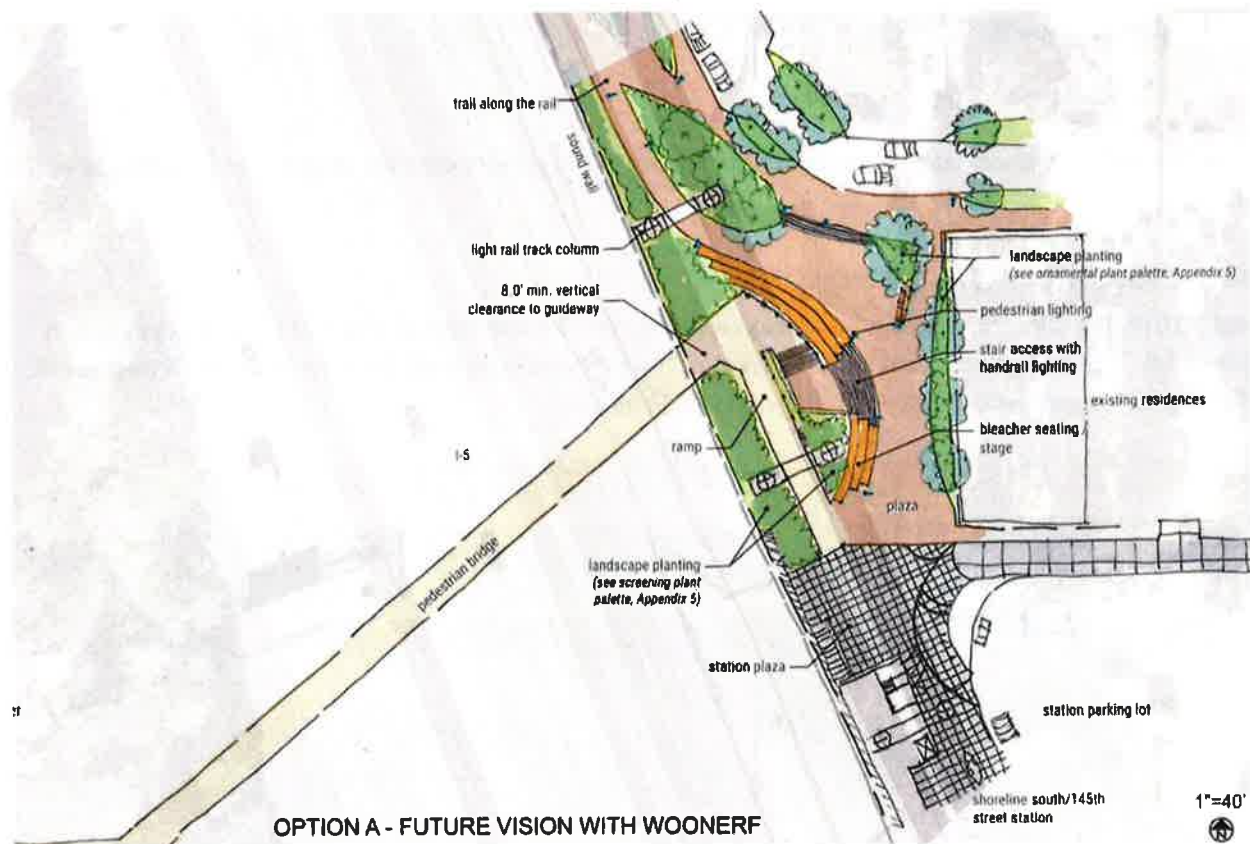


Figure 13-9: Option A – Future Vision with 3rd Avenue NE Woonerf

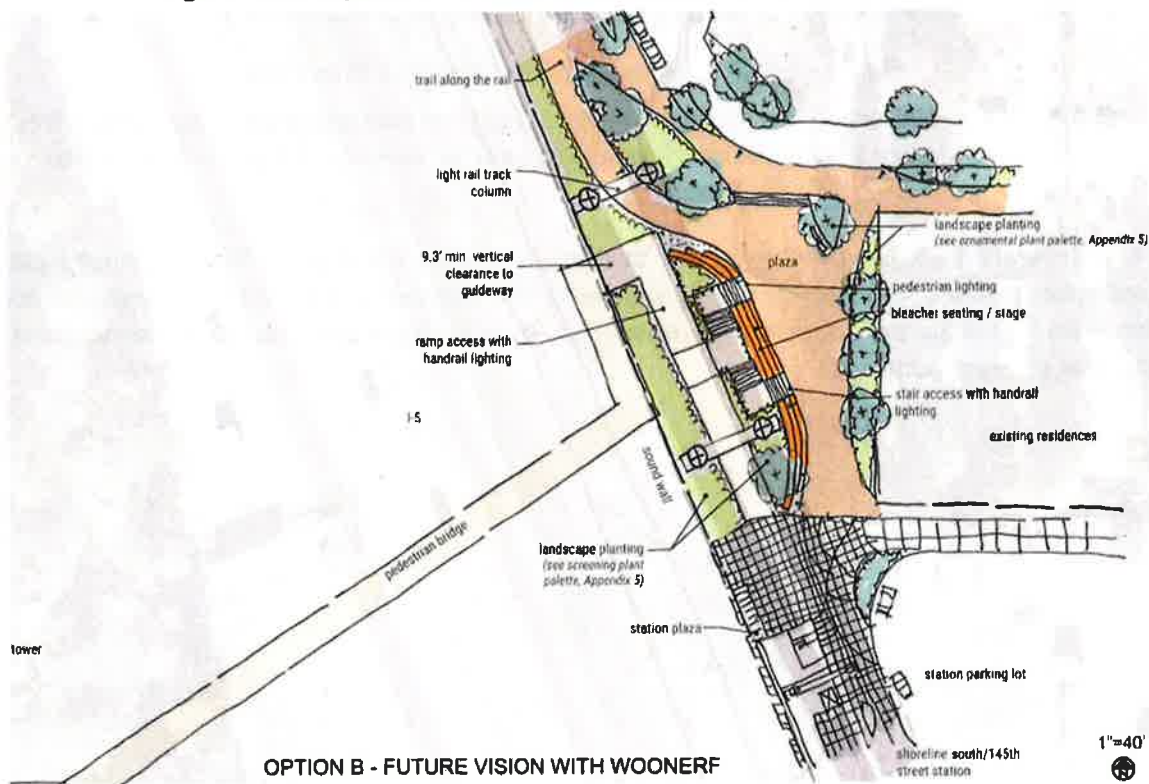


Figure 13-10: Option B – Future Vision with 3rd Avenue NE Woonerf

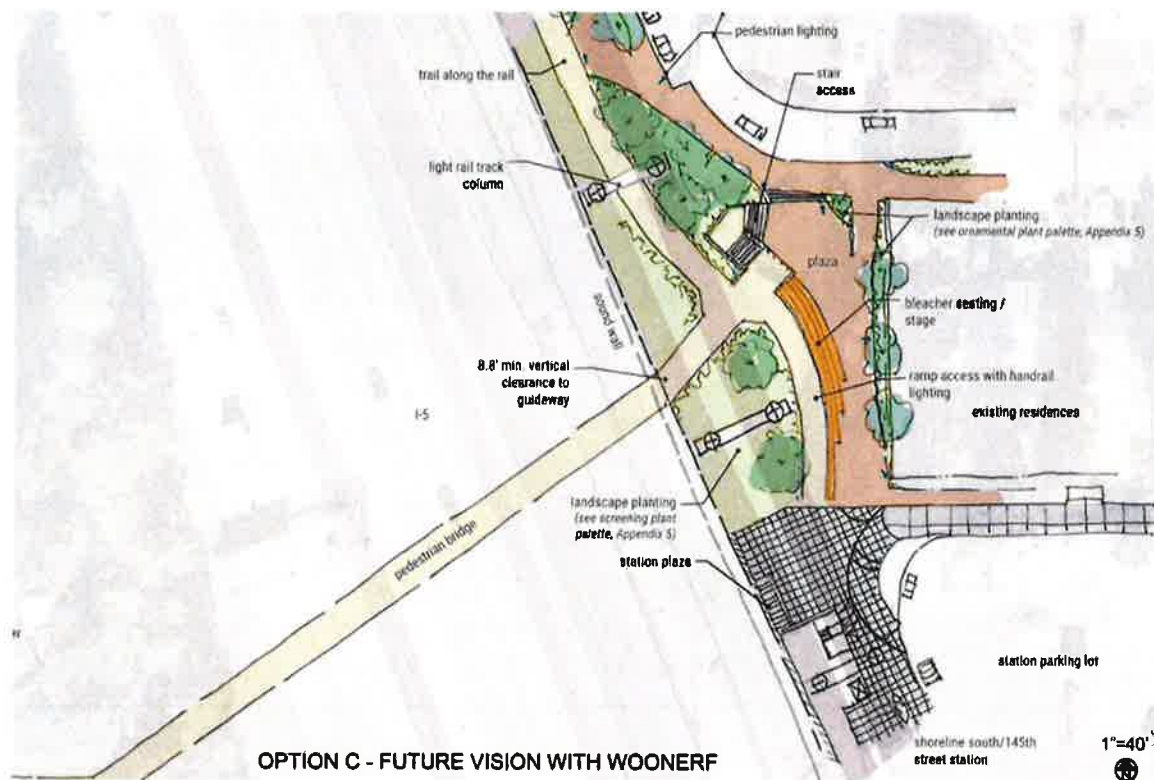


Figure 13-11: Option C – Future Vision with 3rd Ave NE Woonerf

14. Cost Summary

This section provides a summary of the estimated project costs for all west trail alignments, bridge and east side landing alternatives. As mentioned previously, these alternatives can be combined interchangeably to form a complete project. Appendix 4 provides a detailed cost and quantity breakdown for all alternatives considered including all assumptions.

WEST SIDE TRAIL ALIGNMENTS ESTIMATED COSTS

Table 14-1 below provides a summary of the estimated project costs for the West Side Trail alignment alternatives.

Table 14-1: West Side Trail Alignment Alternatives Estimated Costs

	West Trail Alignments		
	Option 1 - Minimal Build-Out	Option 2 - Full Build-Out South	Option 3 - Full Build-Out North
Construction Costs (incl. Mobilization)	\$582,481	\$2,131,023	\$1,203,208
Contingency (40% of Const. Cost)	\$232,992	\$852,409	\$481,283
Engineering Design (20% of Const. Cost + Contingency)	\$163,095	\$596,687	\$336,898
Construction Management & Administration (25% of Const. Cost + Contingency)	\$203,868	\$745,858	\$421,123
ROW Costs (Including TCE & Administration)	\$1,878,285	\$1,307,235	\$1,140,975
Total Cost	\$3,060,730	\$5,633,220	\$3,583,490

BRIDGE MAIN SPAN ESTIMATED COSTS

Table 14-2 below provides a summary of the estimated project costs for the Bridge Main Span alternatives.

Table 14-2: Bridge Main Span Alternatives Estimated Costs

	Bridge Main Span		
	Tied Arch (without Canopy)	Combined Arch (without Canopy)	Truss (without Canopy)
Construction Costs (incl. Mobilization)	\$6,428,620	\$6,910,420	\$7,721,835
Contingency (40% of Const. Cost)	\$2,571,448	\$2,764,168	\$3,088,734
Engineering Design (20% of Const. Cost + Contingency)	\$1,800,014	\$1,934,918	\$2,162,114
Construction Management & Administration (25% of Const. Cost + Contingency)	\$2,250,017	\$2,418,647	\$2,702,642
ROW Costs (Including TCE & Administration)	-	-	-
Total Cost	\$13,050,100	\$14,028,160	\$15,675,330

EAST SIDE LANDINGS ESTIMATED COSTS

Table 14-3 below provides a summary of the estimated project costs for the East Side Landing alternatives.

Table 14-3: East Side Landing Alternatives Estimated Costs

	East Side Landing		
	Option A	Option B	Option C
Construction Costs	\$1,814,549	\$2,308,136	\$1,925,743
Contingency (40% of Const. Cost)	\$725,820	\$923,254	\$770,297
Engineering Design (20% of Const. Cost + Contingency)	\$508,074	\$646,278	\$539,208
Construction Management & Administration (25% of Const. Cost + Contingency)	\$635,092	\$807,847	\$674,010
ROW Costs (Including TCE & Administration)	-	-	-
Total Cost	\$3,683,540	\$4,259,559	\$3,909,260

SUMMARY OF ESTIMATED COSTS

Table 14-4, below, provides a summary of the estimated project costs. For this table, the components of the total project cost were adjusted to account for the year in which each cost is expected to occur. The assumptions for this calculation are documented below.

- Construction, Contingency, Construction Management & Administration in 2024, escalated 4% each year from 2020
- Engineering Design in 2023, escalated 4% each year from 2020
- ROW Costs in 2022, escalated 6% each year from 2020

The table provides the estimated project cost for each of the 27 possible combinations of West Side Trail Alignments, Bridge Main Spans, and East Side Landings. For example, the estimated costs for West Side Option 1, Tied Arch Main Span, and East Side Option A is \$22,958,530.

Table 14-4: Summary of Estimated Costs

West Side Trail Alignment	Bridge Main Span	East Side Landing		
		Option A	Option B	Option C
Option 1 - Minimum Build-Out \$ 3,486,390	Tied Arch	\$ 22,958,530	\$ 24,124,490	\$ 23,221,190
	Combination Arch	\$ 24,096,650	\$ 25,262,610	\$ 24,359,310
	Truss	\$ 26,013,380	\$ 27,179,340	\$ 26,276,040
Option 2 - Full Build-Out South \$ 6,502,750	Tied Arch	\$ 25,974,890	\$ 27,140,850	\$ 26,237,550
	Combination Arch	\$ 27,113,010	\$ 28,278,970	\$ 27,375,670
	Truss	\$ 29,029,740	\$ 30,195,700	\$ 29,292,400
Option 3 - Full Build-Out North \$ 4,124,240	Tied Arch	\$ 23,596,380	\$ 24,762,340	\$ 23,859,040
	Combination Arch	\$ 24,734,500	\$ 25,900,460	\$ 24,997,160
	Truss	\$ 26,651,230	\$ 27,817,190	\$ 26,913,890

15. Project Open House

As part of the larger public outreach effort, the City of Shoreline hosted an online open house between April 10 and May 1, 2020, to share information and gather input on the design of the bridge and how it connects to the neighborhoods on the east and west sides of I-5. A companion in-person open house had been planned, however, due to mandated social distancing associated with the COVID-19 pandemic, this event had to be cancelled. As a substitute for the in-person open house, the City hosted a one hour webinar which included a 20 minute presentation followed by a live question and answer (Q&A) session. A recording of the webinar and the Q&A responses were subsequently made available on the project website. The online open house served as the main avenue by which feedback from the general public was gathered.

When visiting the online open house participants could:

- Learn more about the project need, benefits, and schedule.

- Review the options being considered for each design element and provide feedback on those options.
- Share how they plan to use the bridge and what criteria is most important to them.
- Share demographic information to help determine the effectiveness of the City's outreach.
- Sign up for email updates about this project and others in the N 145th Street corridor

The City used multiple methods to reach audiences and promote the online open house. A postcard advertising the online open house and the webinar was sent to 4,195 addresses in the project area. Information about the online open house was also posted on the project webpage and on social media, and the project team sent emails to project partners, neighborhood organizations, and immediate project stakeholders.

Between April 10 and May 1, 529 individuals visited the online open house. There were 165 survey respondents, who provided:

- 125 responses to bridge structure questions
- 87 responses to the east bridge landing questions
- 113 responses to the west trail connection questions
- 98 responses to evaluation criteria questions
- 110 responses to bridge use and demographic questions
- 33 open-ended comments in response to the question *"Is there anything else you would like to share about the N 148th St Non-Motorized Bridge Project?"*

The following tables summarize the quantitative data from the survey regarding preference for the west trail connection, the main span bridge and the east landing alternatives. All questions were optional. Not all respondents answered every question. The online open house content and a more comprehensive summary of the responses is included in Appendix 6 of this report.

Table 15-1: Responses to West Trail Connection Preference

QUESTION: WHICH WEST TRAIL CONNECTION DO YOU PREFER?		
Answers	Percentage	Tally
Option 2: Full Build-Out	57%	57
Option 3: Minimal Build-Out	43%	43
Total	100%	100

Table 15-2: Responses to Bridge Option Preference

QUESTION: WHICH BRIDGE OPTION DO YOU PREFER?		
Answers	Percentage	Tally
Option 2: Tied Arch Bridge	57%	63
Option 3: Truss Bridge	26%	28
Option 1: Combined Arch Bridge	17%	19
Total	100%	110

Table 15-3: Responses to East Bridge Landing Option Preference






















QUESTION: WHICH EAST BRIDGE LANDING DO YOU PREFER?		
Answers	Percentage	Tally
Option 3: Direct Ramp	94%	77
Option 2: Switchback Ramp	5%	4
Option 1: A-Frame Ramp	1%	1
Total	100%	82

16. Alternatives Evaluation and Recommendations

Each trail, bridge, and landing alternative was qualitatively evaluated and compared to one another in the previous sections of this report. These comparisons are consolidated and visually represented in three evaluation criteria matrices (ECM). The purpose of each ECM is to help facilitate the decision making process with the goal of selecting the preferred alternative.

WEST SIDE TRAIL ALIGNMENT EVALUATION CRITERIA MATRIX

Figure 16-1 below shows the ECM for the West Side Trail Alignments studied.

Evaluation Criteria Matrix - West Side Trail Alignment Options			
	Option 1 - Minimal Build-Out	Option 2 South - Full Build-Out	Option 2 North - Full Build-Out
User Safety and Security			
Connectivity & Travel Times			
Ease of Stakeholder Approval			
ROW Considerations			
Operations and Maintenance			
Aesthetics			
Project Costs			

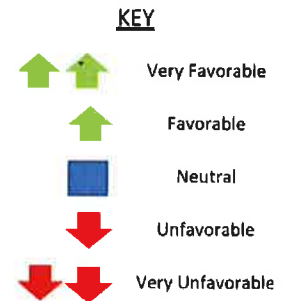























Figure 16-1: ECM for the West Side Trail Alignment Alternatives

BRIDGE MAIN SPAN EVALUATION CRITERIA MATRIX

Figure 16-2 below shows the ECM for the Bridge Main Span options studied.

Evaluation Criteria Matrix - Bridge Main Span Options			
	Tied Arch Bridge	Combined Arch Bridge	Truss Bridge
User Safety and Security			
Connectivity & Travel Times			
Ease of Stakeholder Approval			
ROW Considerations			
Operations and Maintenance			
Aesthetics			
Project Costs			

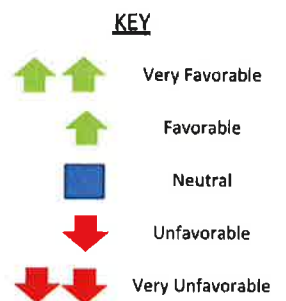
























Figure 16-2: ECM for the Bridge Main Span Options


EAST SIDE LANDINGS EVALUATION CRITERIA MATRIX


Figure 16-3 below shows the ECM for the East Side Landings alternatives studied.


Evaluation Criteria Matrix - East Side Landing Options			
	Option A	Option B	Option C
User Safety and Security			
Connectivity & Travel Times			
Ease of Stakeholder Approval			
ROW Considerations			
Operations and Maintenance			
Aesthetics			
Project Costs			

KEY


Very Favorable


Favorable


Neutral


Unfavorable



Very Unfavorable

Figure 16-3: ECM for the East Side Landings Alternatives

WEST SIDE TRAIL ALIGNMENT RECOMMENDATIONS

Three west side trail alignment alternatives are presented in this report. Each alternative provides the necessary connection from 1st Avenue NE to the main bridge span. Each of these alternatives have benefits and trade-offs especially with regard to ease of stakeholder approval, right-of-way, user safety and security and project costs.

Based on the results of this TS&L evaluation and input from the general public through the online open house, Option 3 – Full Build-out North is the recommended preferred alternative for the west side trail alignment. This option best meets the established project criteria and received the most favorable feedback from the public.

BRIDGE MAIN SPAN RECOMMENDATIONS

Three main span bridge alternatives are presented in this report. These bridges meet the project design requirements, but differ primarily in their costs, aesthetic value and maintenance requirements.

Based on the results of this TS&L evaluation and input from the general public through the online open house, the tied-arch bridge is the recommended preferred alternative for the main span structure. While all bridges met the design criteria and were comparable in their cost, the tied-arch span received the most favorable feedback from the public.

EAST SIDE LANDING RECOMMENDATIONS

Three east side landing alternatives are presented in this report. These landings provide a connection from the bridge to the Shoreline South/145th Street Station, the trail-along-the-rail and the surrounding neighborhood. These alternatives vary primarily in their connectivity, vertical clearance to the overhead light rail structure and costs.

Based on the results of this TS&L evaluation and input from the general public through the online open house, Option 3 – Direct Ramp is the recommended preferred alternative for the east side landing. This option best meets the established project criteria and received the most favorable feedback from the public.

17. References

- DAHP. 2020. Washington Information System for Architectural and Archaeological Records Data (WISAARD). <https://wisaard.dahp.wa.gov/Map>. Accessed February 6.
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- WDFW. 2020c. Washington Department of Fish and Wildlife Habitats and Species Map in the Vicinity of T26R04E Section 17. February 7. Olympia, Washington.
- WDFW. 2019. Priority Habitats and Species List. <https://wdfw.wa.gov/publications/00165> January.

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Appendix 1

West Side Trail Connection

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Appendix 1

West Side Trail Connection

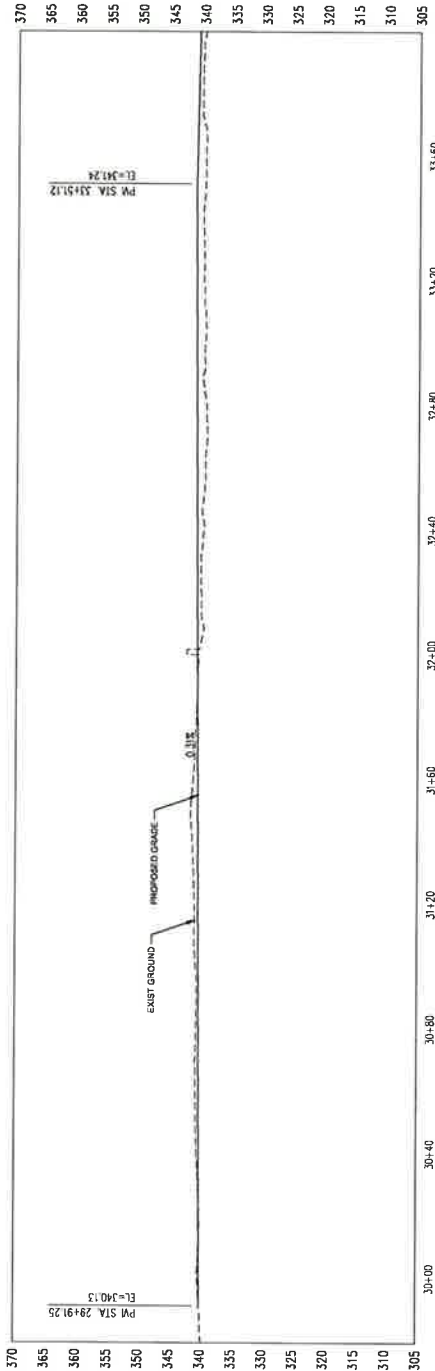
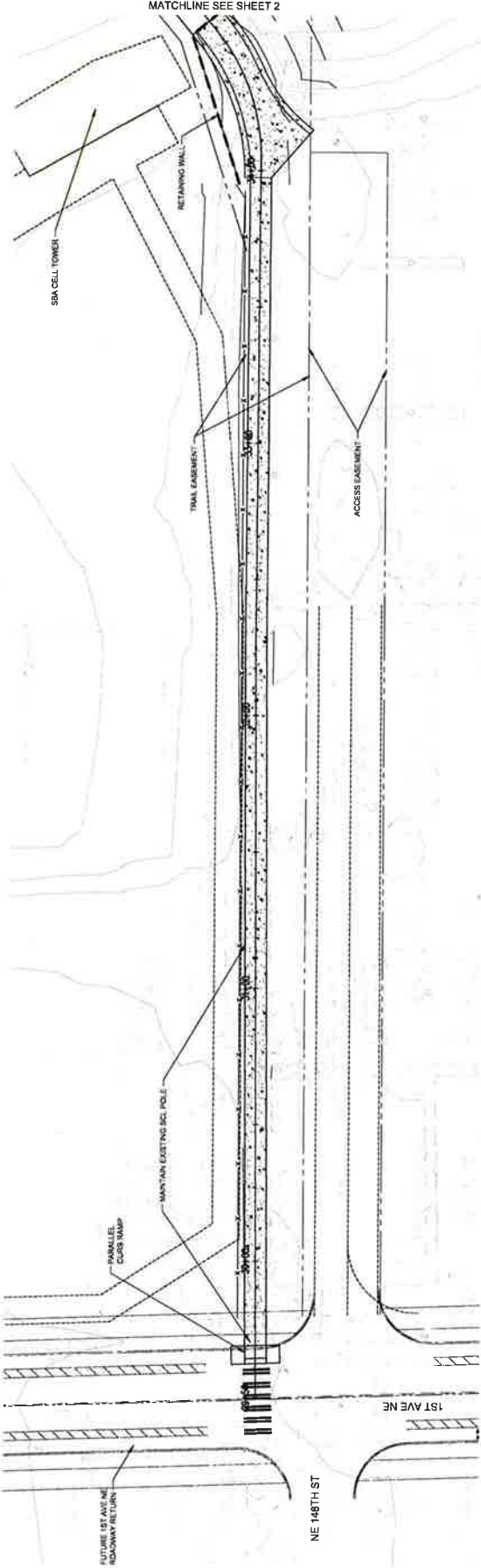
Option 1 - Minimal Build-Out

WEST TRAIL CONNECTION TO 1ST AVENUE NE



OPTION 1 - MINIMAL BUILD-OUT

SE 1/4 SEC 06, NE 1/4 SEC 07, T 25 N, R8E, WM



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CITY OF SHORELINE
N 148 NON-MOTORIZED BRIDGE
WEST OPTION 1, EAST OPTION A

DRAWN BY	JIS
DESIGN BY	KI
CHECK BY	JM
PROJECT MGR	LB



MARK	REVISION DESCRIPTION	BY	APP.	DATE

Appendix 1

West Side Trail Connection

Option 2 - Full Build-Out South

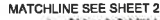
WEST TRAIL CONNECTION TO 1ST AVENUE NE



OPTION 2 SOUTH - FULL BUILD-OUT

SHORELINE - N 148TH NON-MOTORIZED BRIDGE

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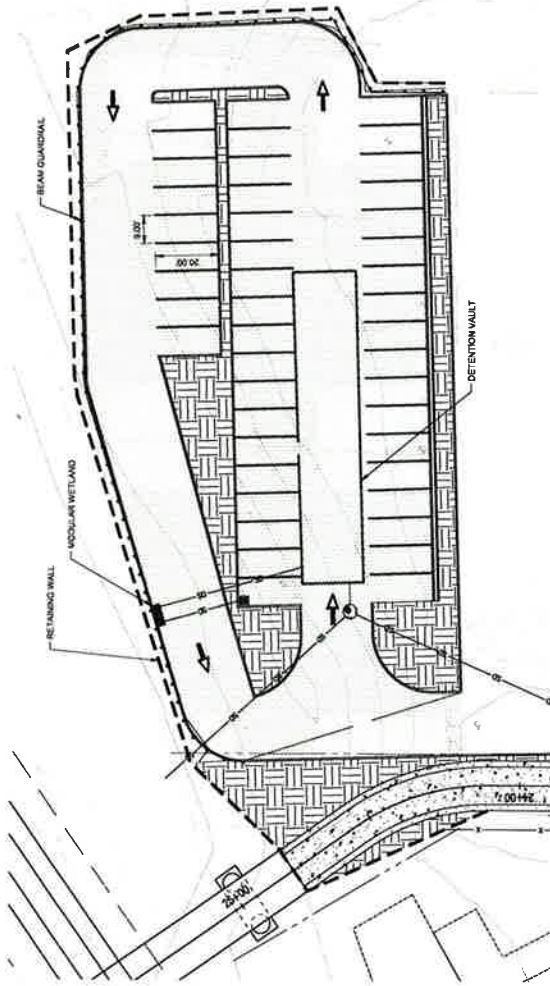
CITY OF SHORELINE
N 148 NON-MOTORIZED BRIDGE
WEST OPTION 2 SOUTH/EAST OPTION B

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PROJ MGR	LB

ffdf

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SE 1/4 SEC 08, NE 1/4 SEC 07, T 25 N, R6E, WM



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CITY OF SHORELINE

N 148 NON-MOTORIZED BRIDGE WEST OPTION 2 SOUTHEAST OPTION B

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PROJECT MGR	LB



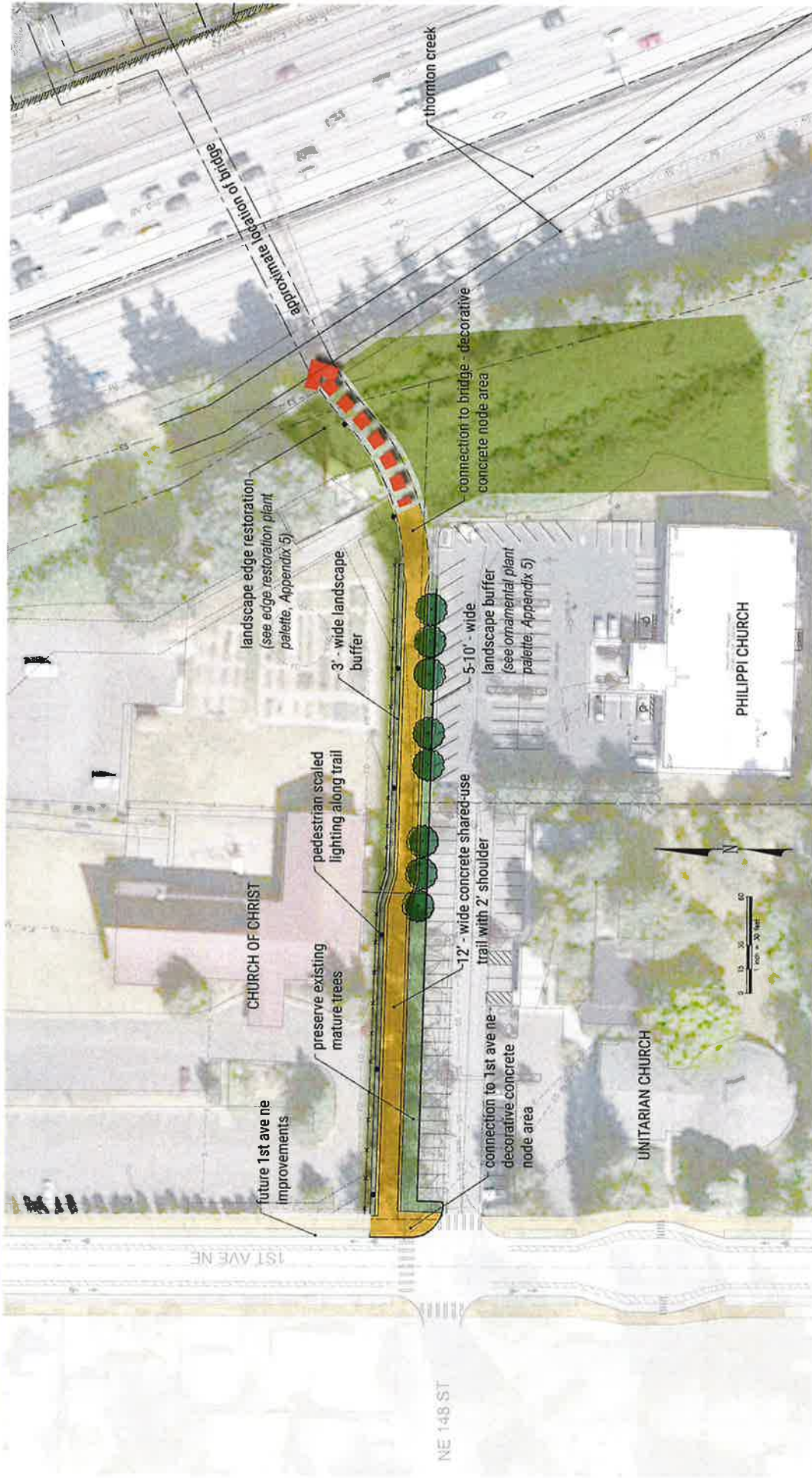
REVISION DESCRIPTION	BY	APP	DATE

Appendix 1

West Side Trail Connection

Option 3 - Full Build-Out North

WEST TRAIL CONNECTION TO 1ST AVENUE NE

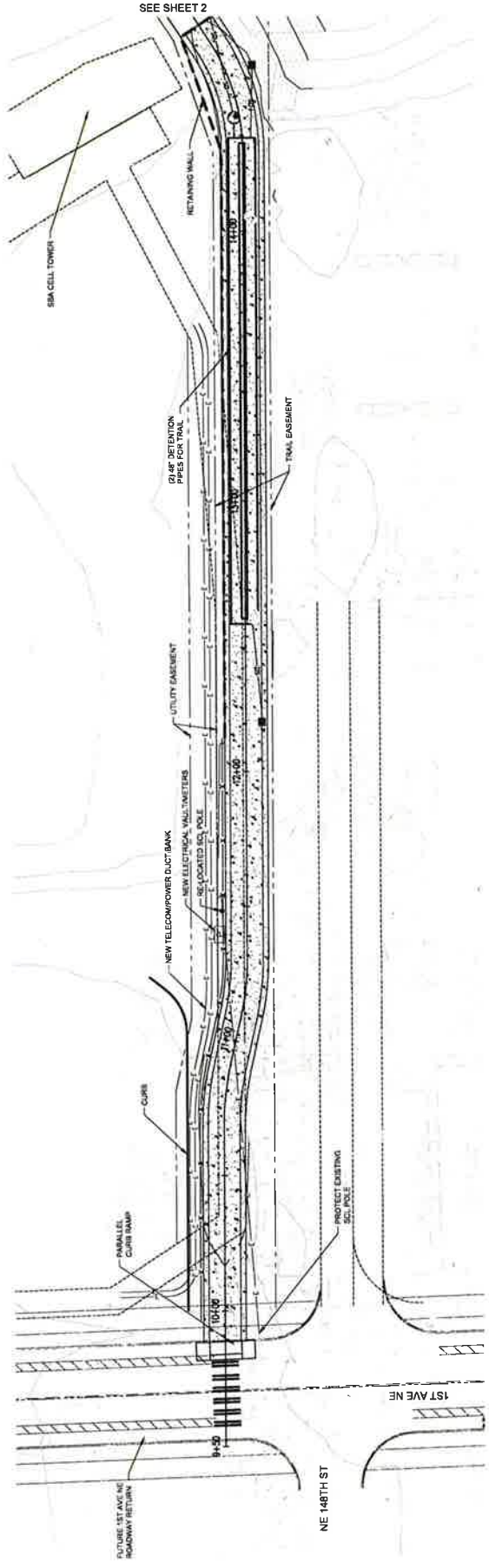


OPTION 2 NORTH - FULL BUILD-OUT

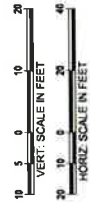
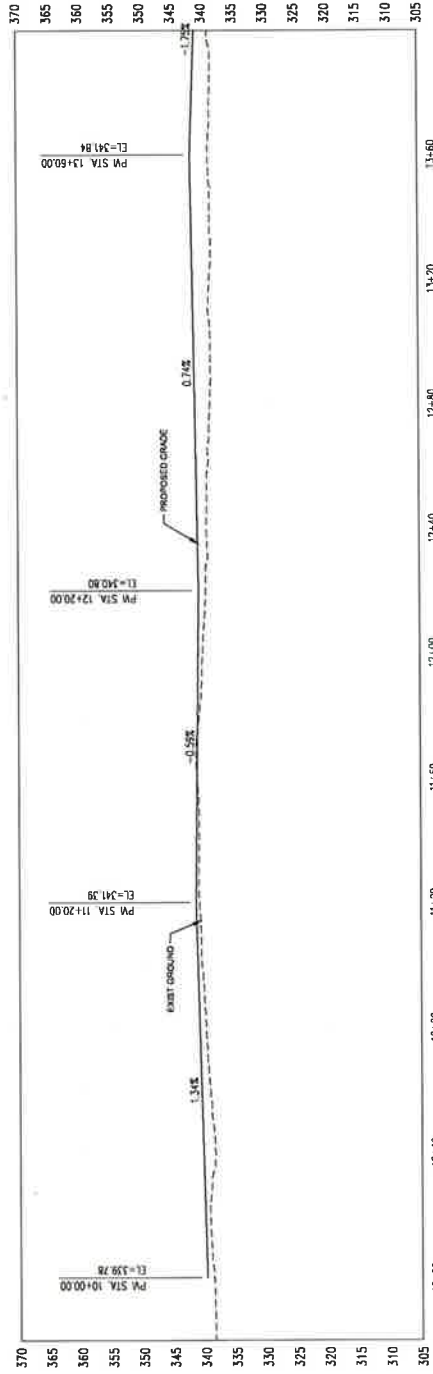
SHORELINE - N 148TH NON-MOTORIZED BRIDGE

FEBRUARY 2020

SE 1/4 SEC 08, NE 1/4 SEC 07, T 25 N, R8E, WM



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CITY OF SHORELINE
N 148 NON-MOTORIZED BRIDGE
WEST OPTION 3 NORTH, EAST OPTION C

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DESIGN BY	KI
CHECK BY	JM
PROJ MGR	LB



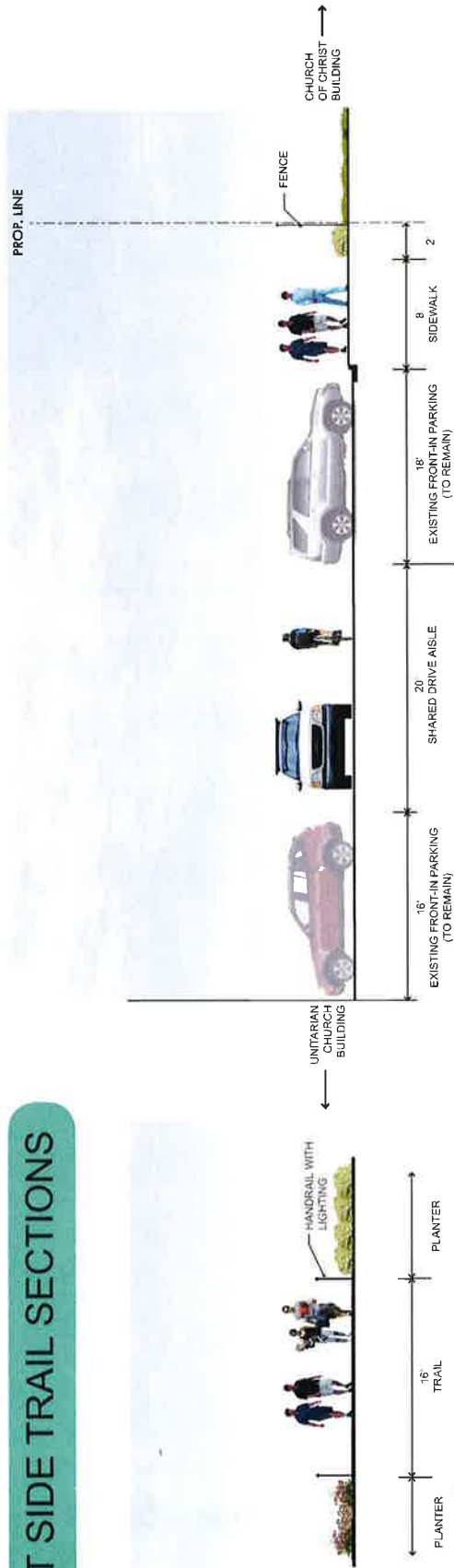
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Appendix 1

West Side Trail Connection

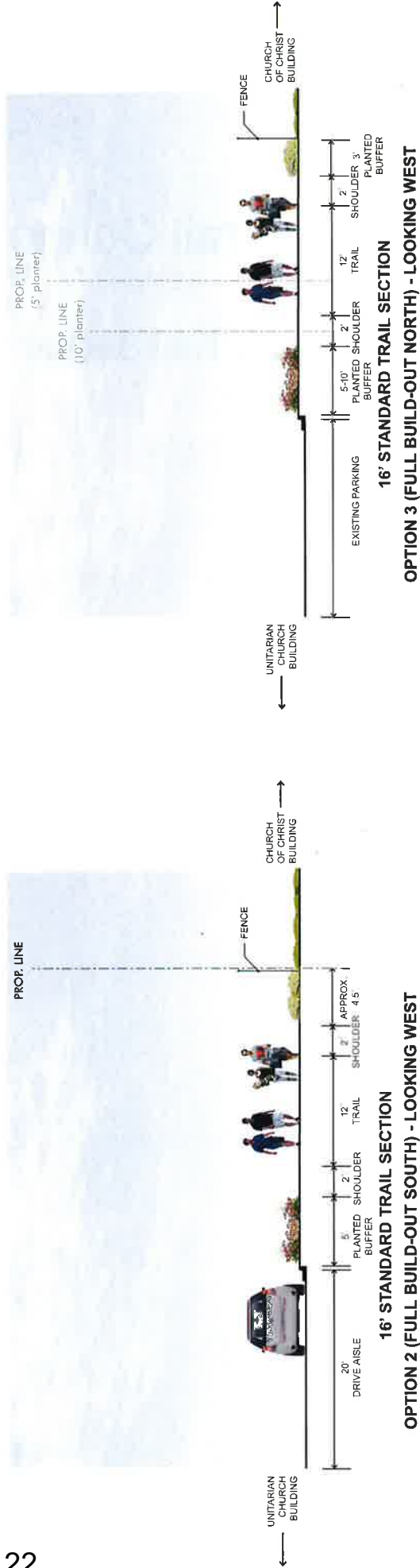
West Side Trail Sections

WEST SIDE TRAIL SECTIONS



**WEST LANDING TRAIL SECTION
(CUT @ RAMP ACCESS FROM BRIDGE)**

**20' SHARED DRIVE AISLE / TRAIL SECTION
OPTION 1 (MINIMAL BUILD-OUT) - LOOKING WEST**



OPTION 2 (FULL BUILD-OUT SOUTH) - LOOKING WEST

OPTION 3 (FULL BUILD-OUT NORTH) - LOOKING WEST

Appendix 2

Main Span Bridge

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Appendix 2

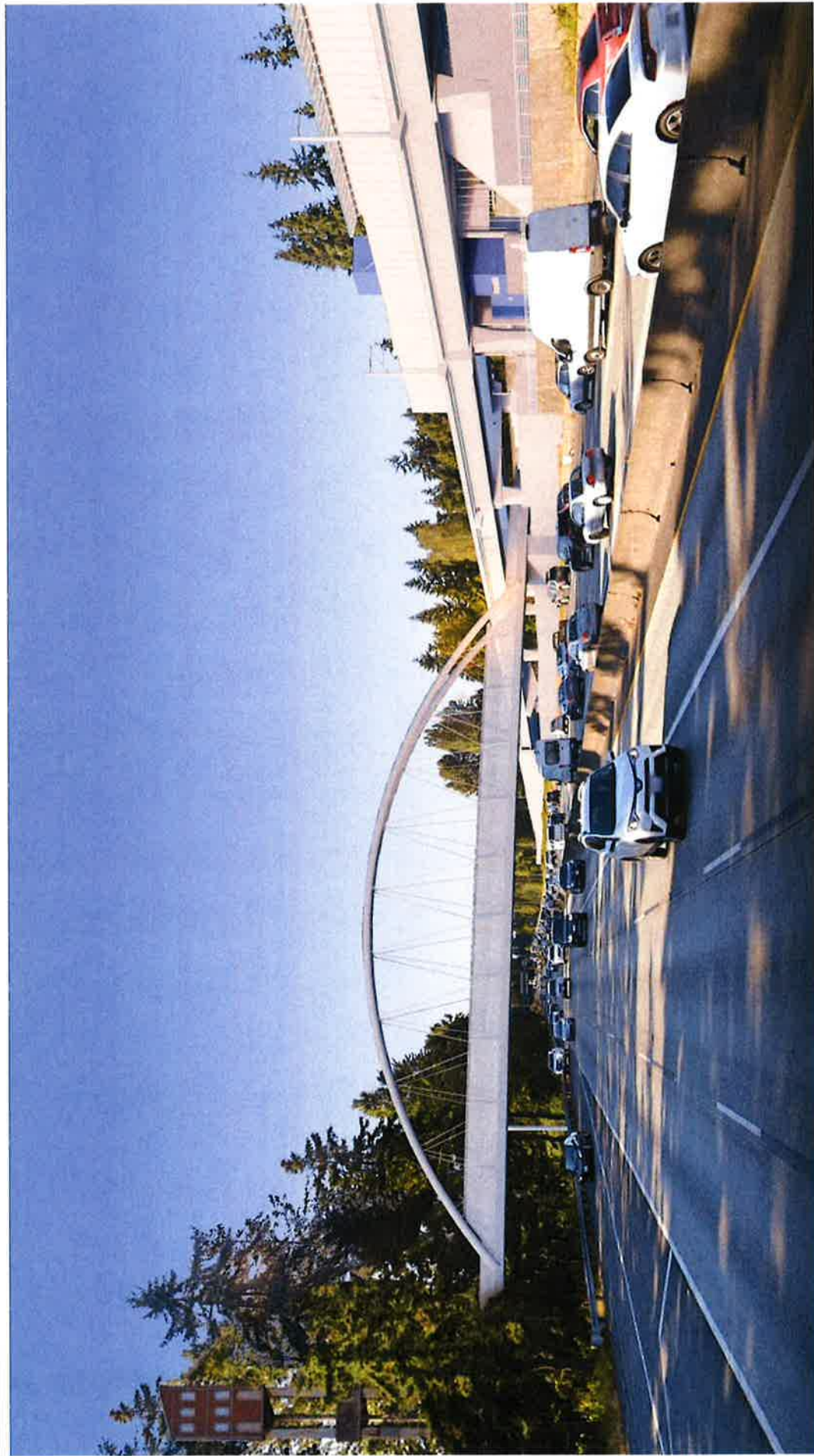
Main Span Bridge

Tied Arch Concept

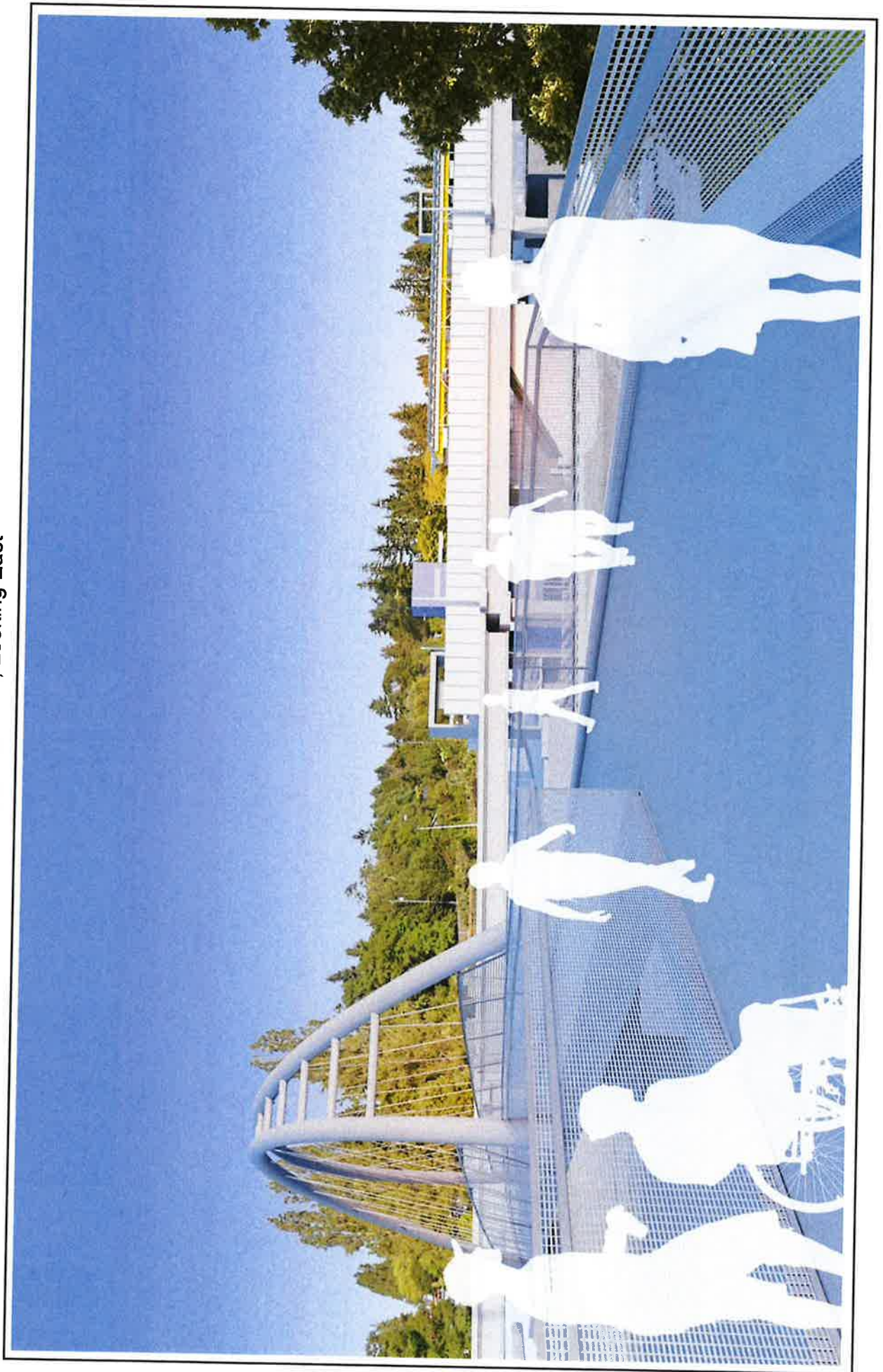
N 148th Non-Motorized Bridge, Main Span

Tied Arch, without Canopy

View from Interstate 5, Looking North



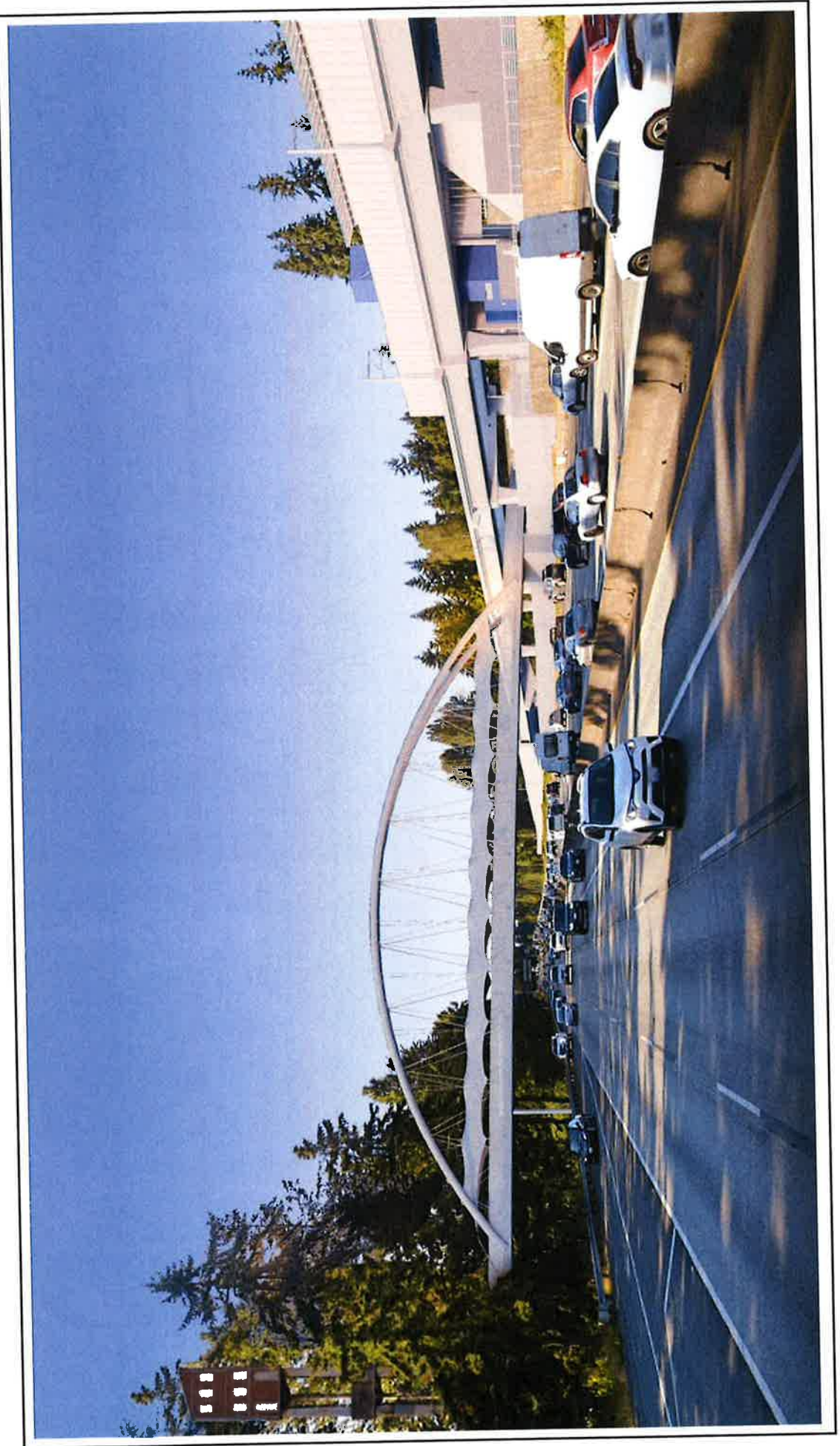
N 148th Non-Motorized Bridge, Main Span
Tied Arch, without Canopy
View from Trail, Looking East



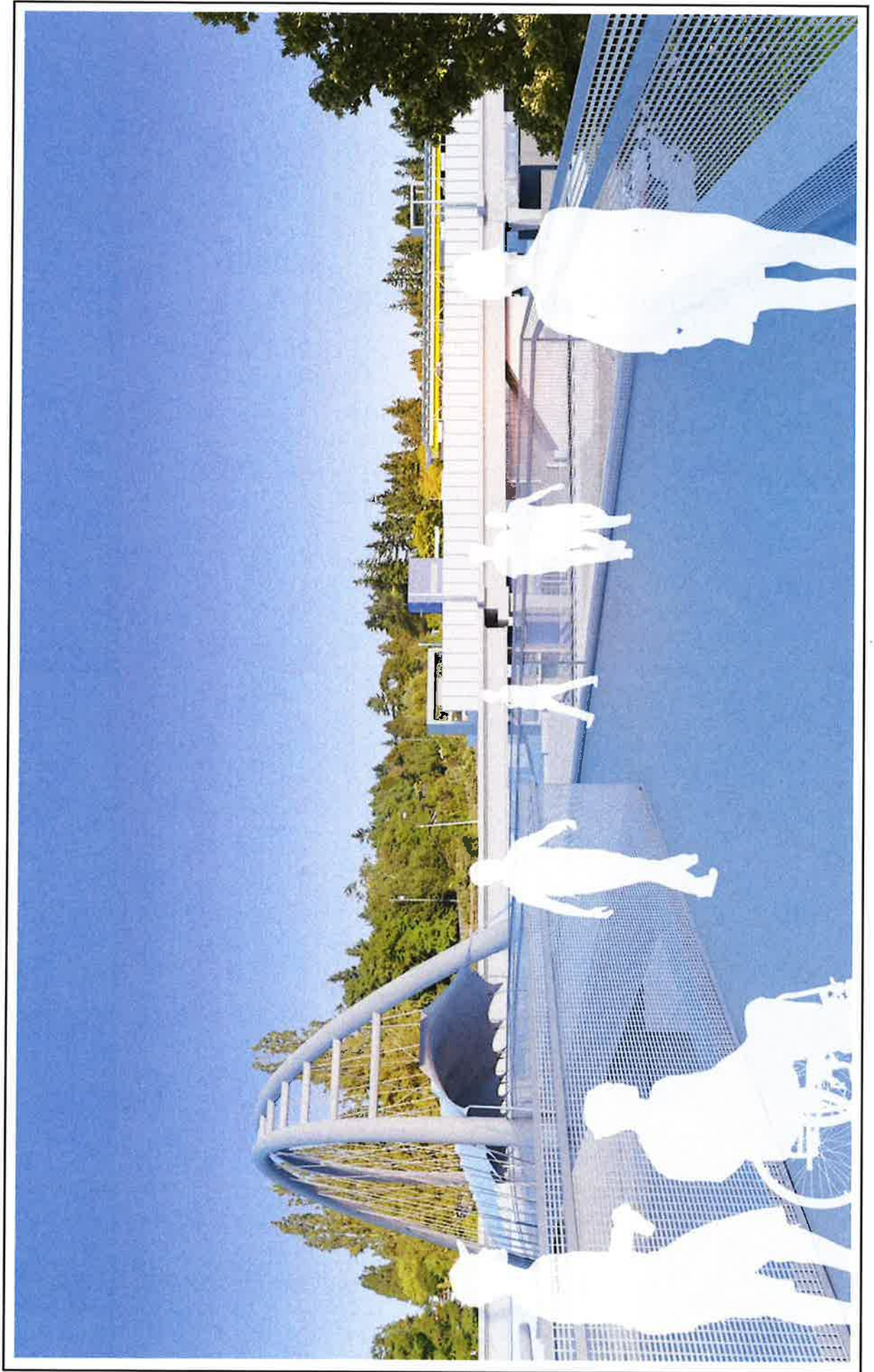
N 148th Non-Motorized Bridge, Main Span

Tied Arch, with Canopy

View from Interstate 5, Looking North



N 148th Non-Motorized Bridge, Main Span
Tied Arch, with Canopy
View from Trail, Looking East

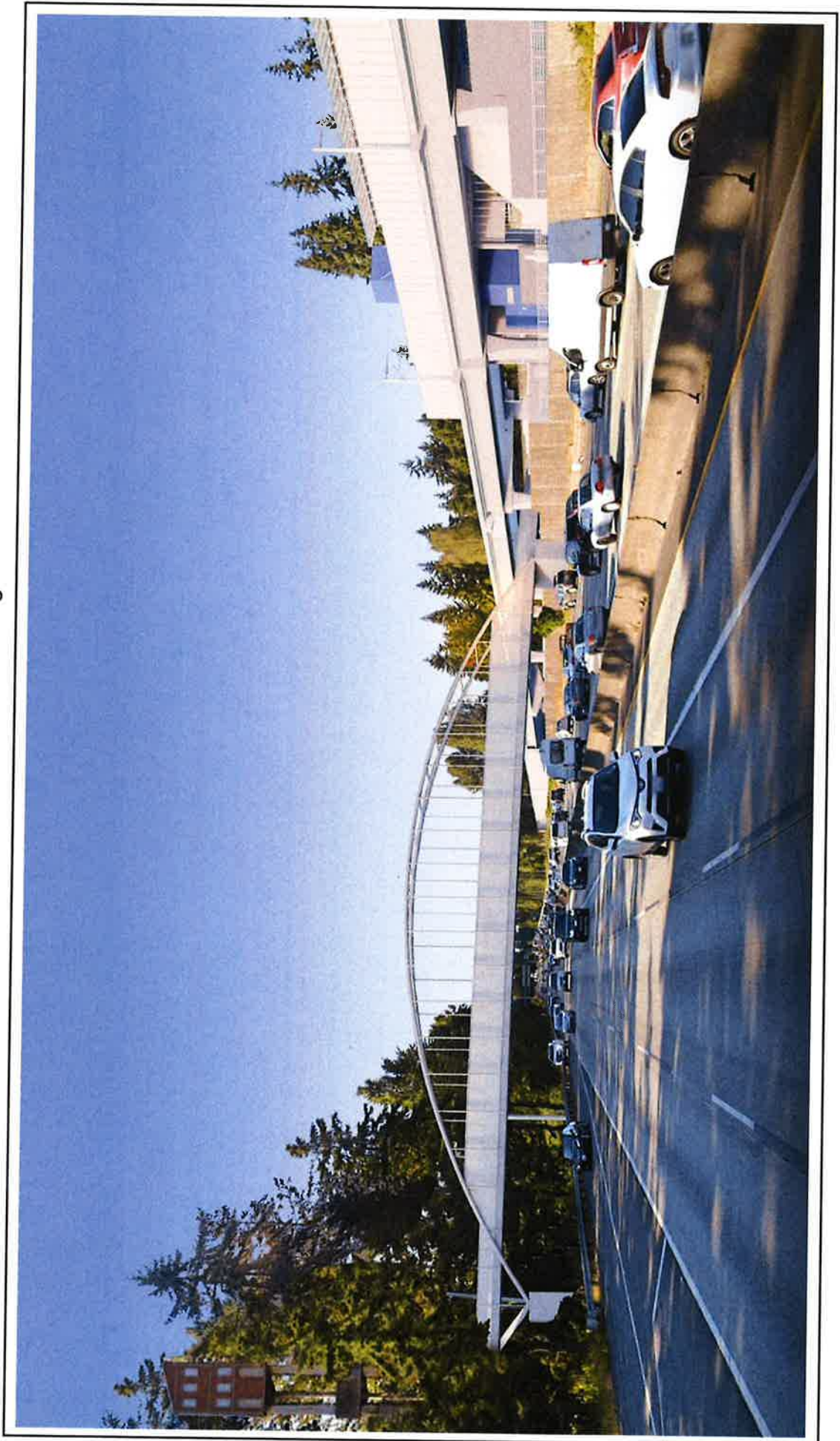


Appendix 2

Main Span Bridge

Combination Arch Concept

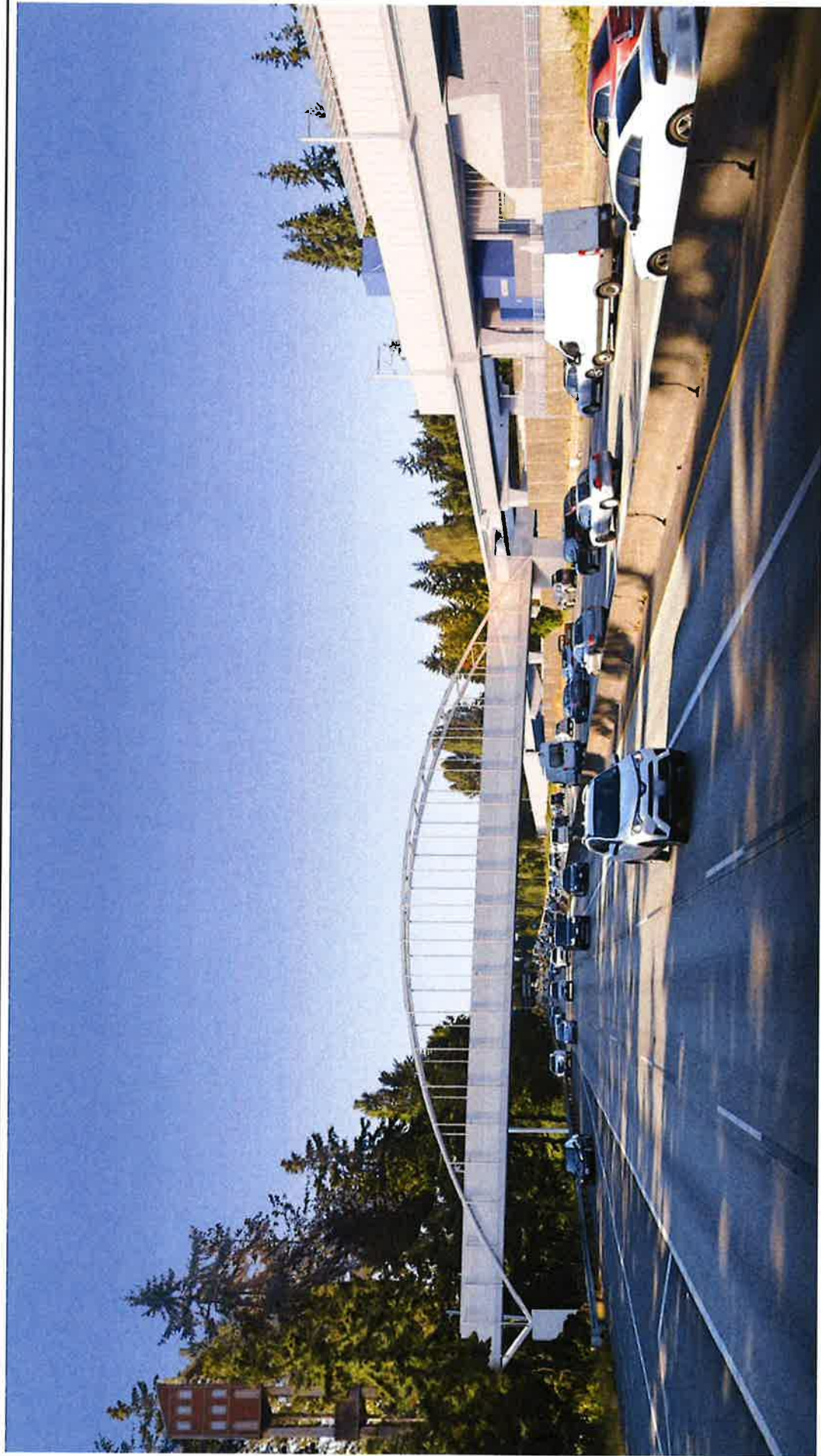
N 148th Non-Motorized Bridge, Main Span
Combination Arch, without Canopy
View from Interstate 5, Looking North



N 148th Non-Motorized Bridge, Main Span
Combination Arch, without Canopy
View from Trail, Looking East



N 148th Non-Motorized Bridge, Main Span
Combination Arch, with Canopy
View from Interstate 5, Looking North



N 148th Non-Motorized Bridge, Main Span
Combination Arch, with Canopy

View from Trail, Looking East



Appendix 2

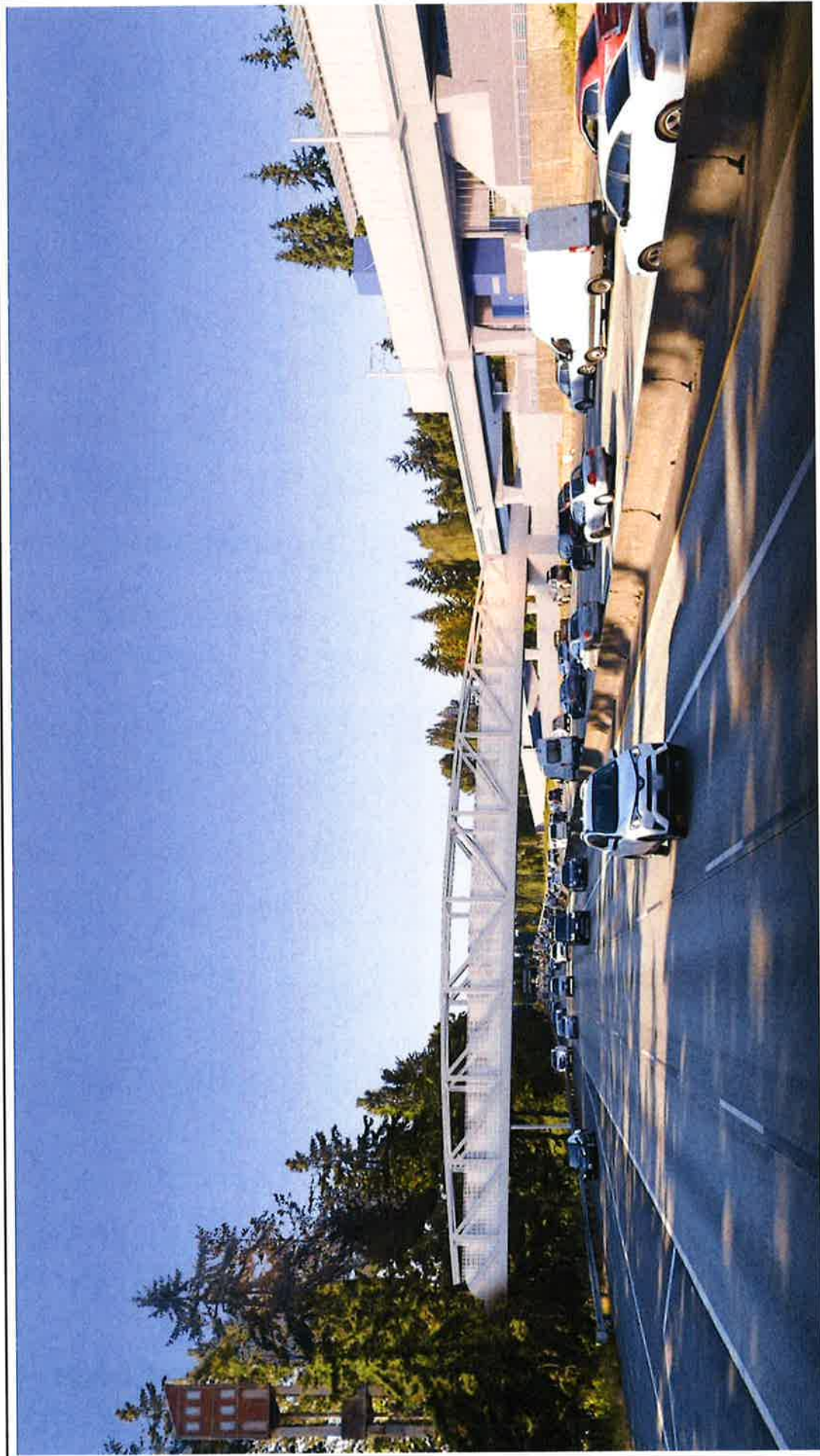
Main Span Bridge

Truss Concept

N 148th Non-Motorized Bridge, Main Span

Truss, without Canopy

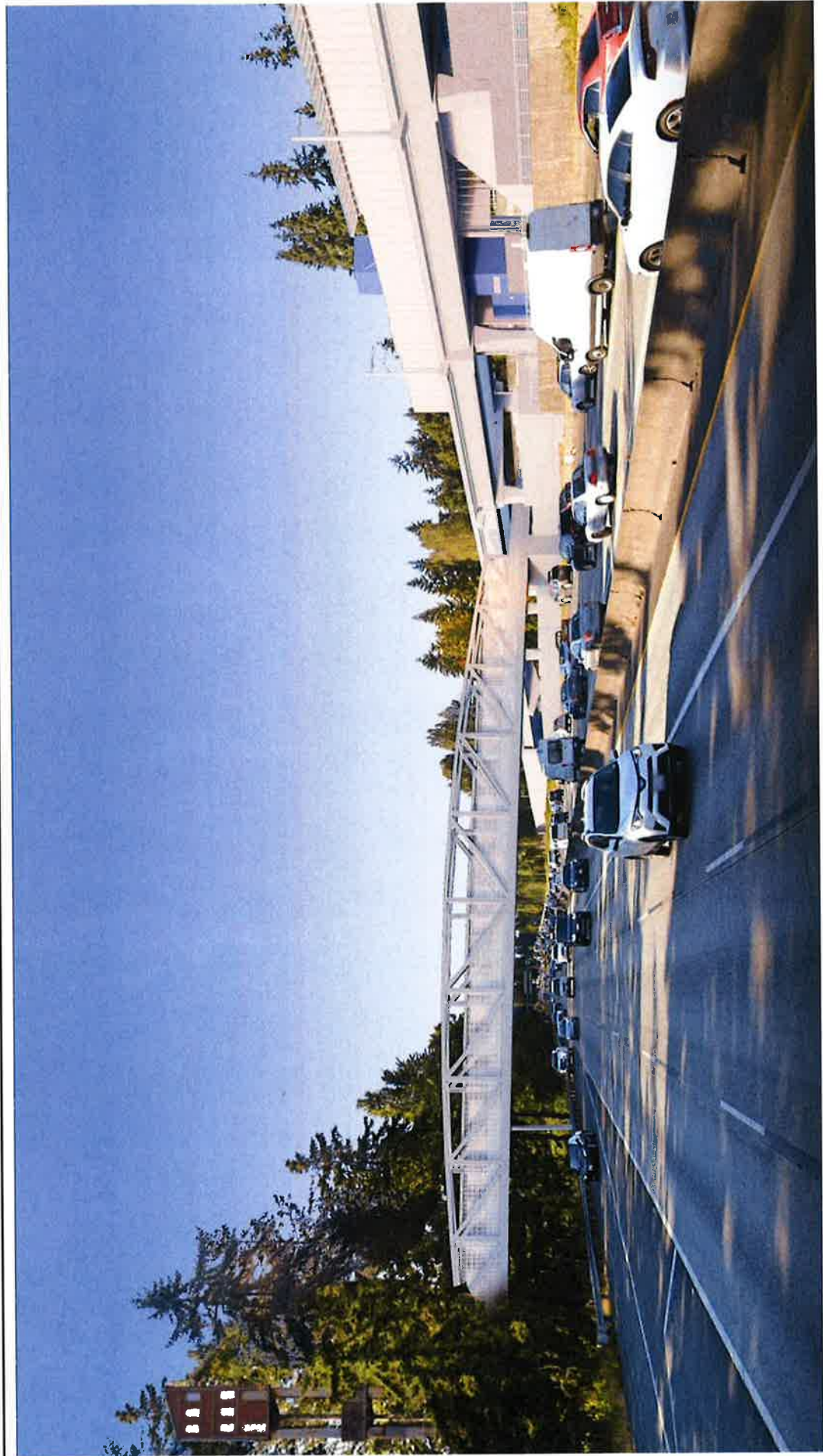
View from Interstate 5, Looking North



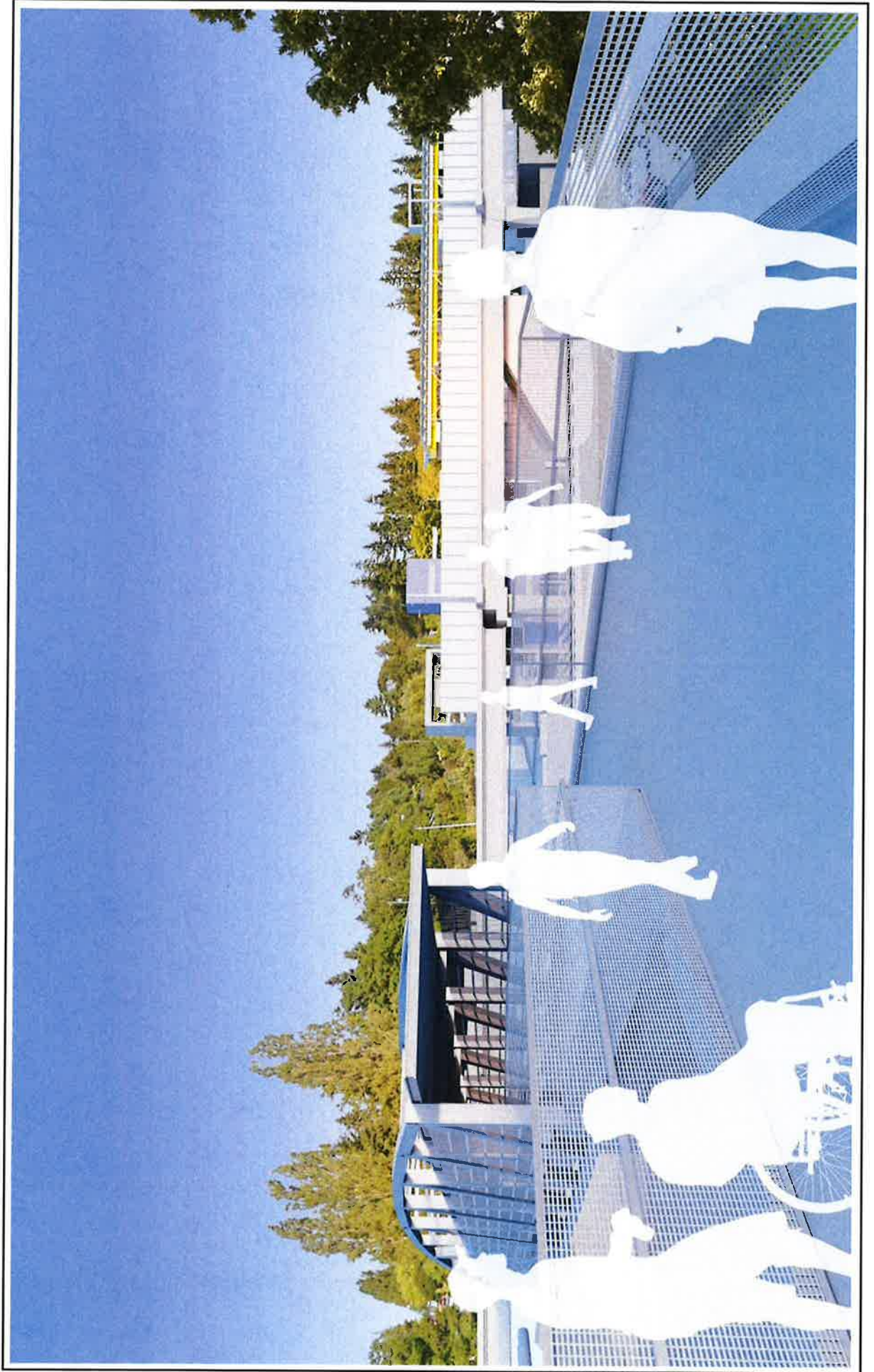
N 148th Non-Motorized Bridge, Main Span
Truss, without Canopy
View from Trail, Looking East



N 148th Non-Motorized Bridge, Main Span
Truss, with Canopy
View from Interstate 5, Looking North



N 148th Non-Motorized Bridge, Main Span
Truss, with Canopy
View from Trail, Looking East



Appendix 2

Main Span Bridge

Preliminary Engineering Plans



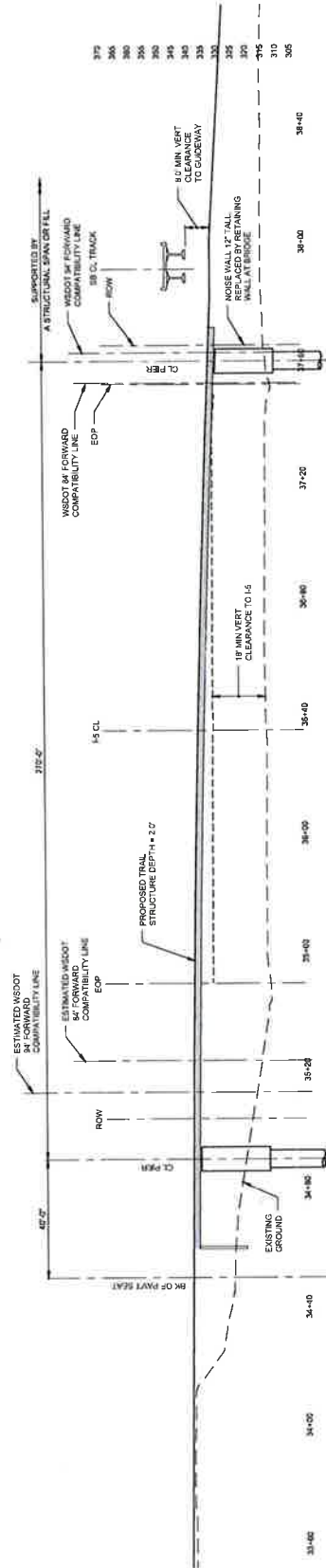
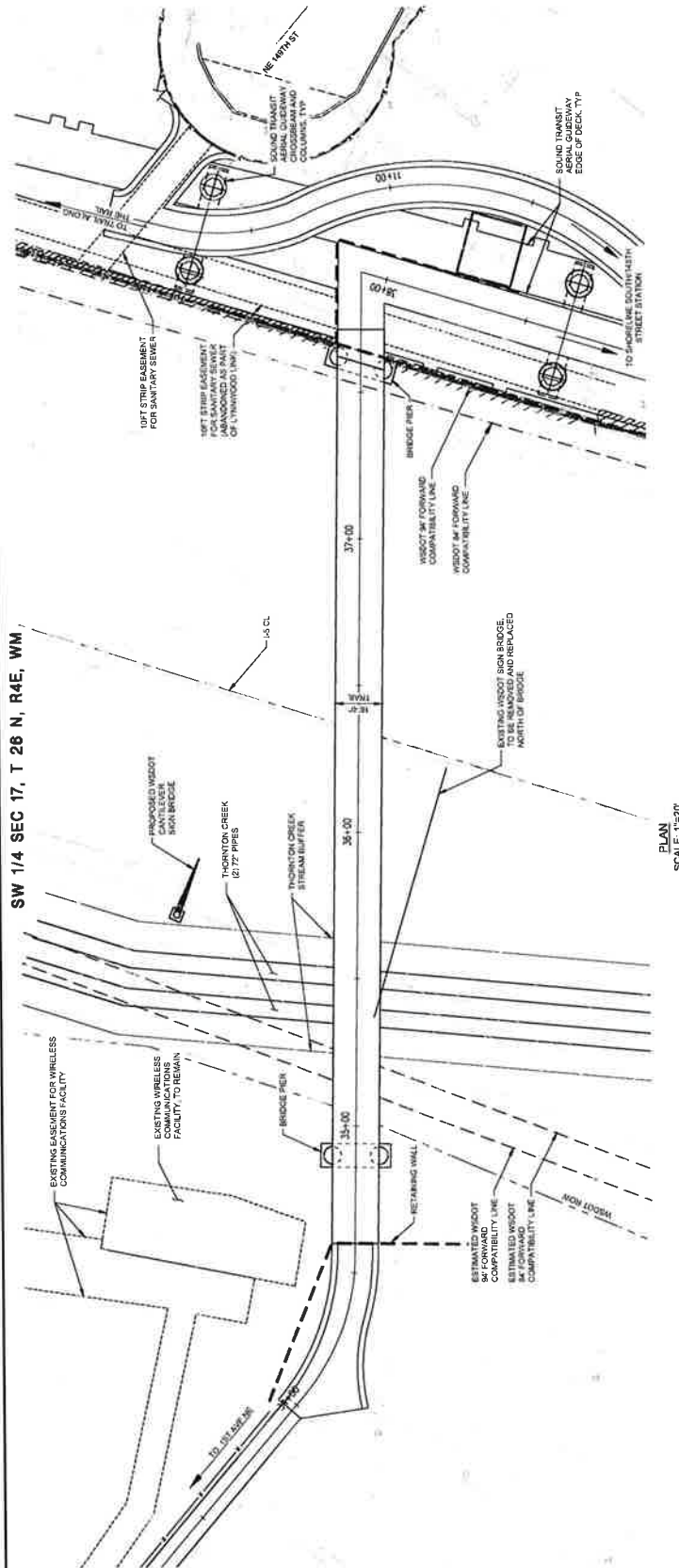
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CITY OF SHORELINE

N 148 NON-MOTORIZED BRIDGE

BRIDGE OPTION A

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DESIGN BY	<u>RCL</u>
CHECK BY	<u> </u>
PROJ MGR	<u>AWO</u>

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ELEVATION:
SCALE: 1"=20'



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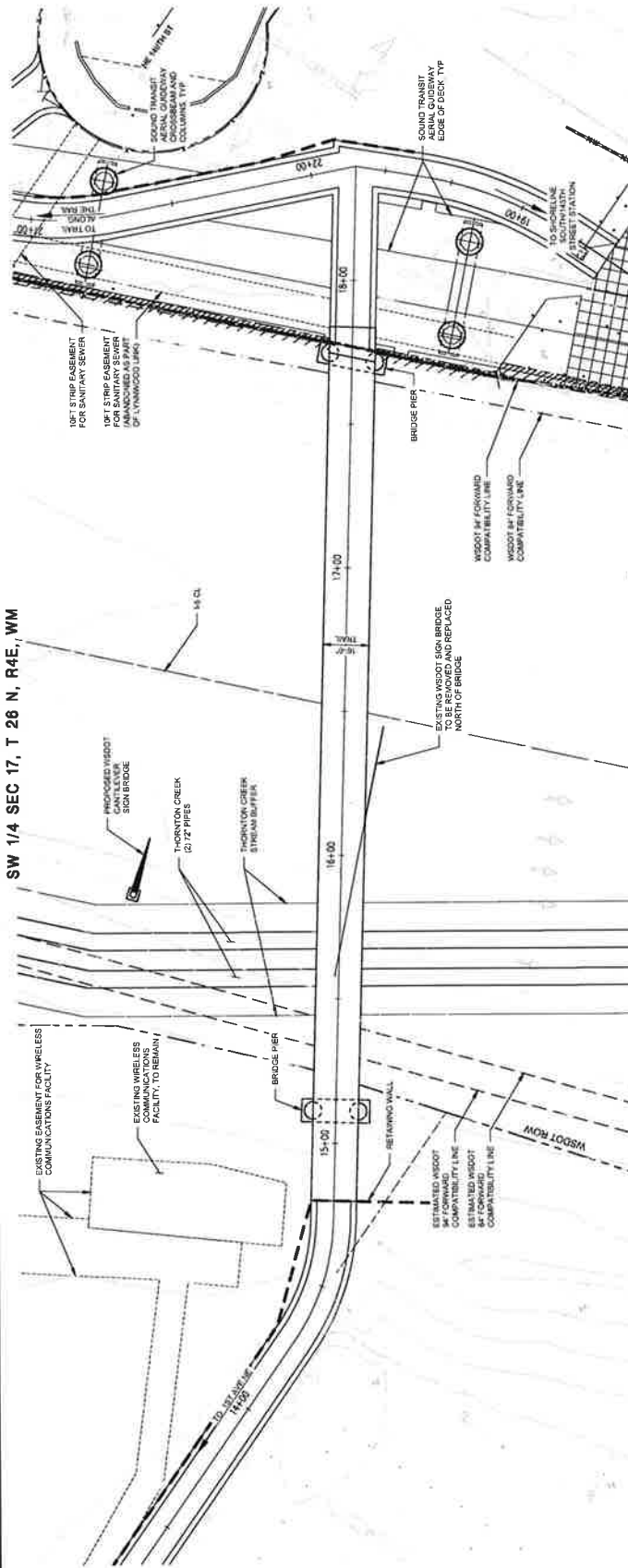
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SHEET NO.	X OF XX

CITY OF SHORELINE

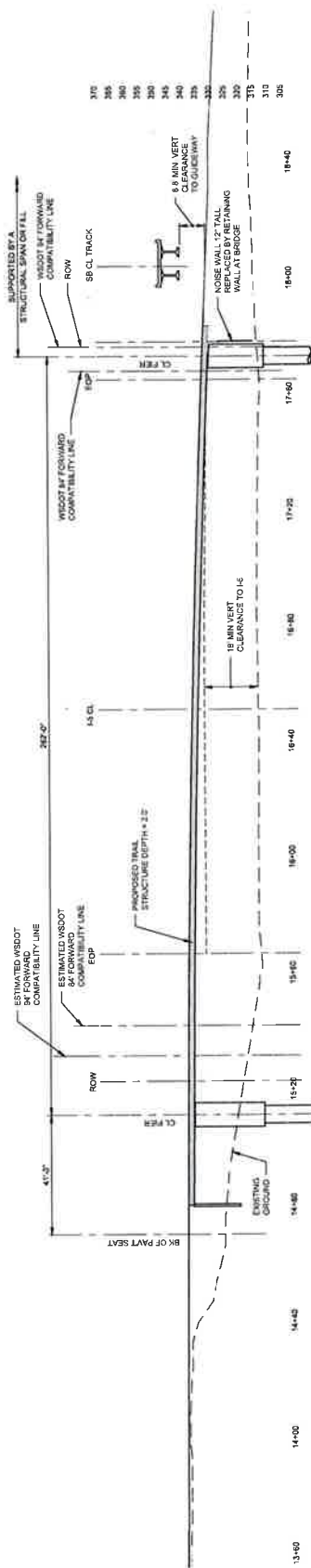
N 148 NON-MOTORIZED BRIDGE

BRIDGE OPTION C

DRAWN BY	<u>HDT</u>
DESIGN BY	<u>RCL</u>
CHECK BY	<u>AWO</u>
PROJ MGR	

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PLAN
SCALE: 1"=20'



ELEVATION
SCALE: 1"=20'

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Appendix 3

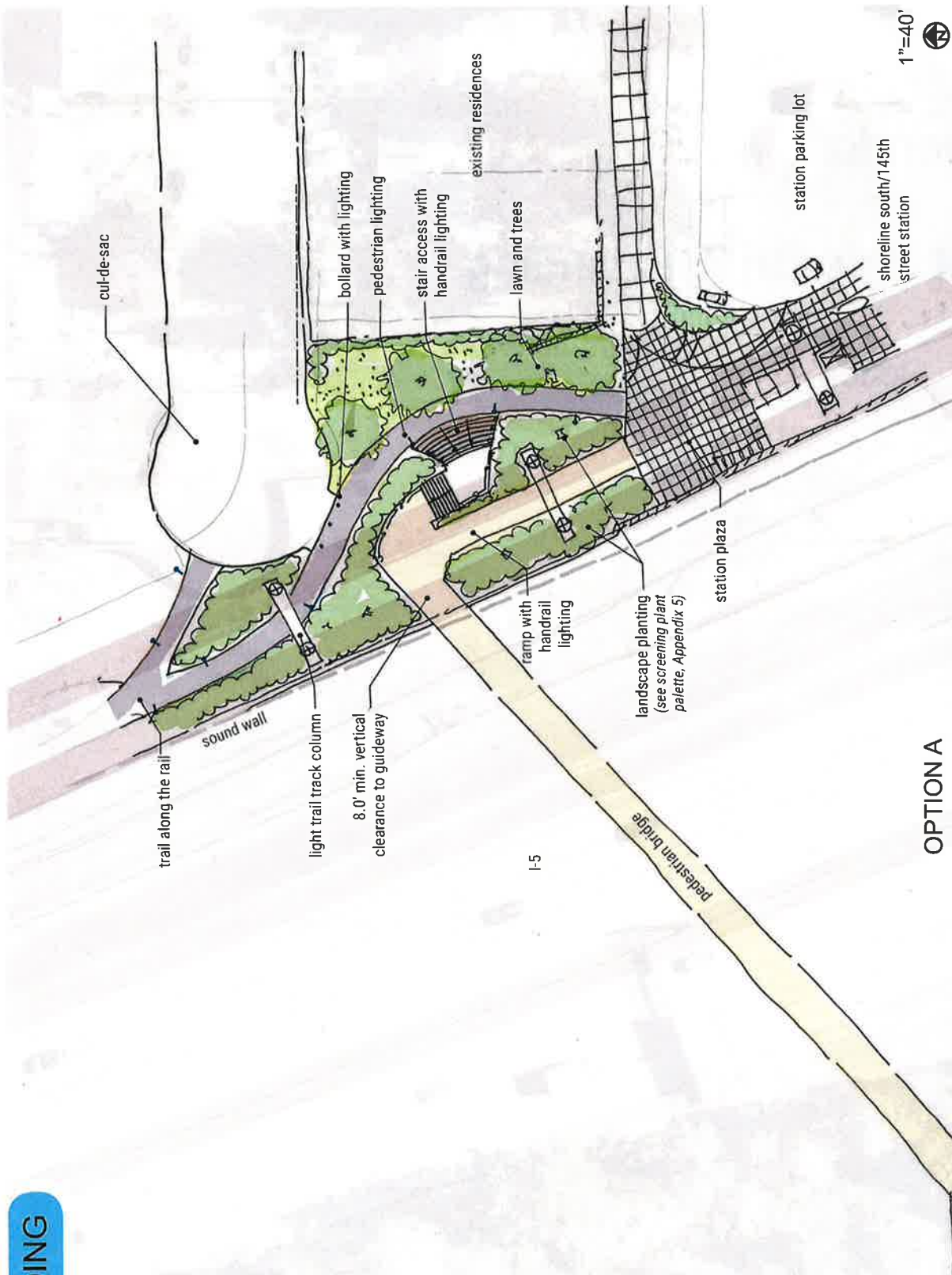
East Side Bridge Landing

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Appendix 3

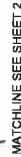
East Side Bridge Landing

Option A



SHORELINE - N 148TH NON-MOTORIZED BRIDGE

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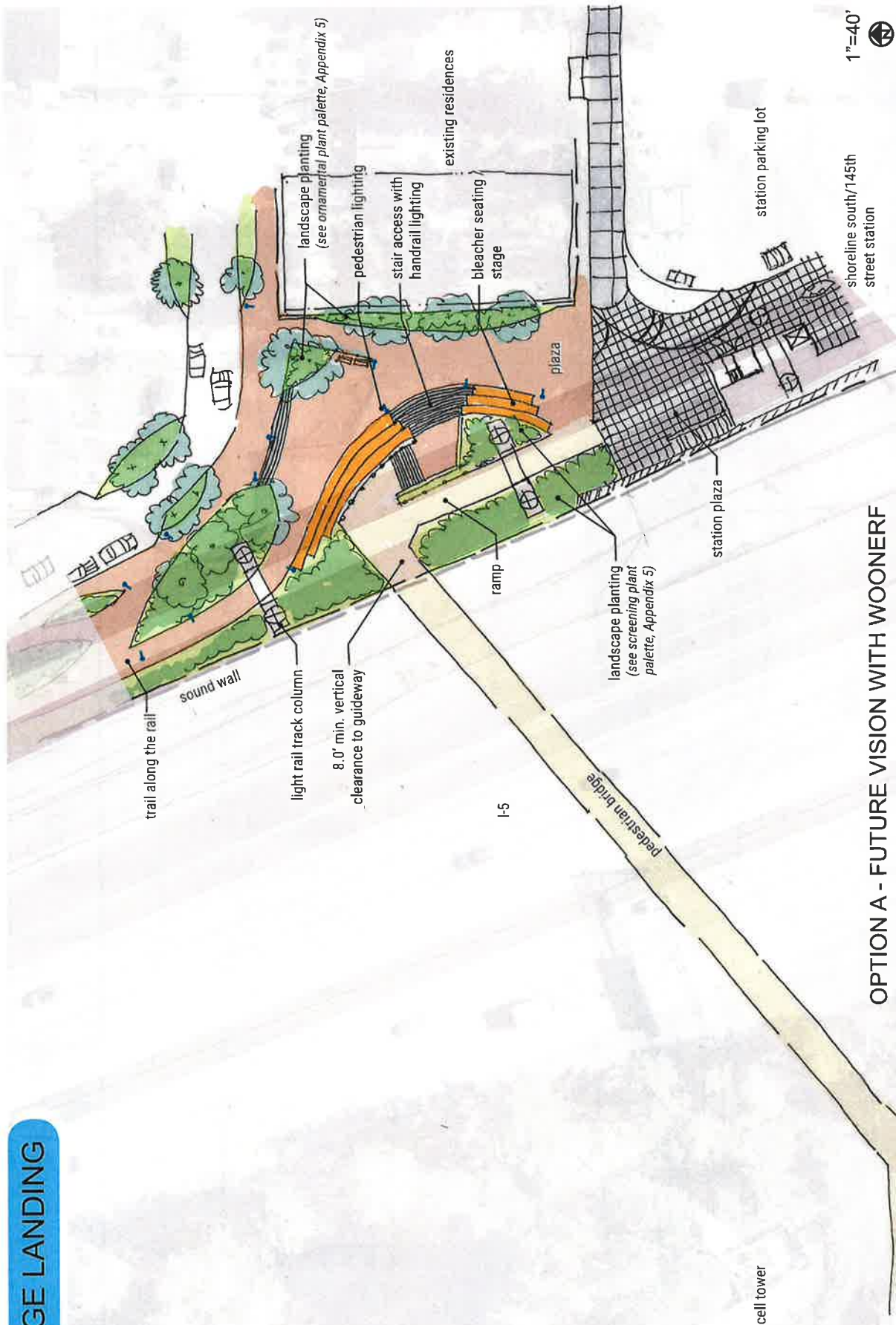
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PROJECT NO 9263
FED AID NO XXXX
DATE: XXXX
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N 148 NON-MOTORIZED BRIDGE
WEST OPTION 1, EAST OPTION A

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DESIGN BY	KI
CHECK BY	JM
PROJ MGR	LB

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OPTION A - FUTURE VISION WITH WOONERF

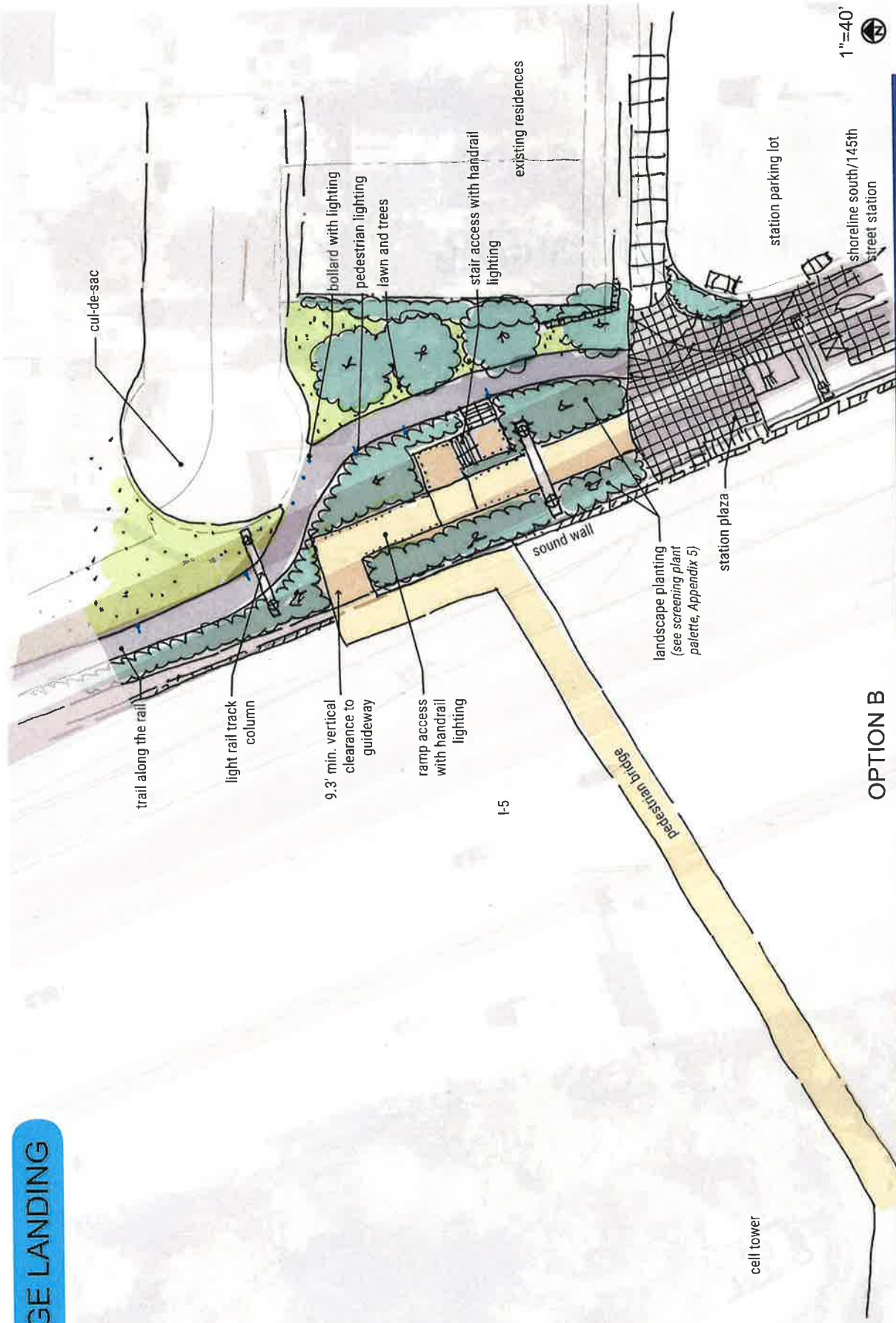
SHORELINE - N 148TH NON-MOTORIZED BRIDGE

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Appendix 3

East Side Bridge Landing

Option B

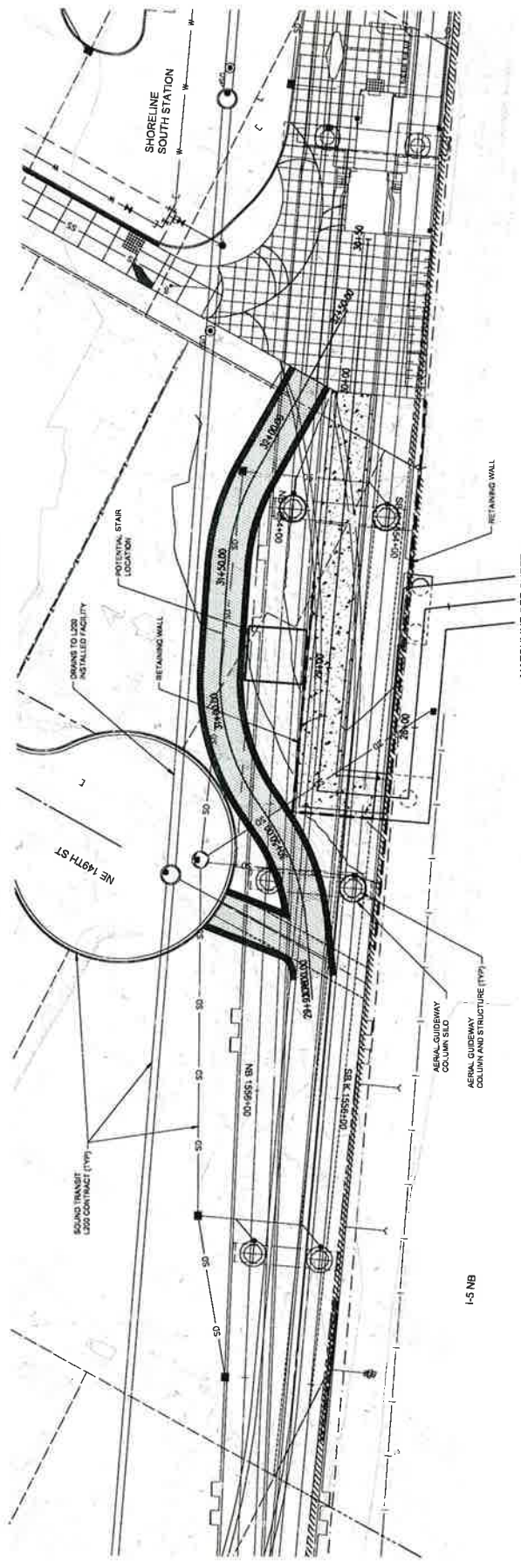


OPTION B

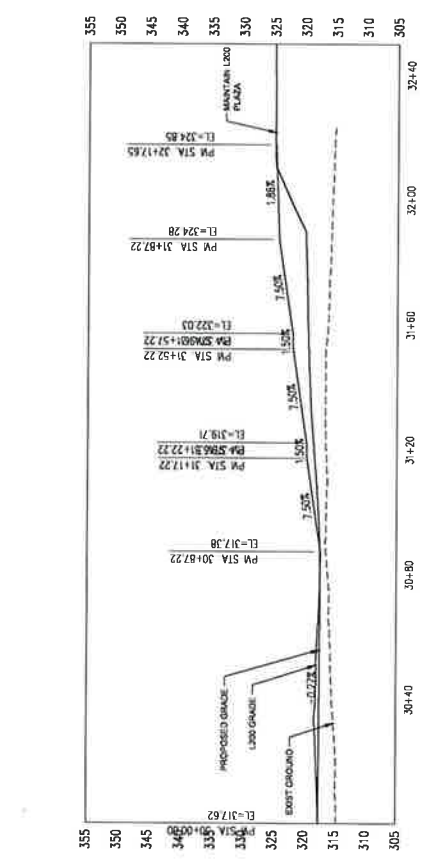
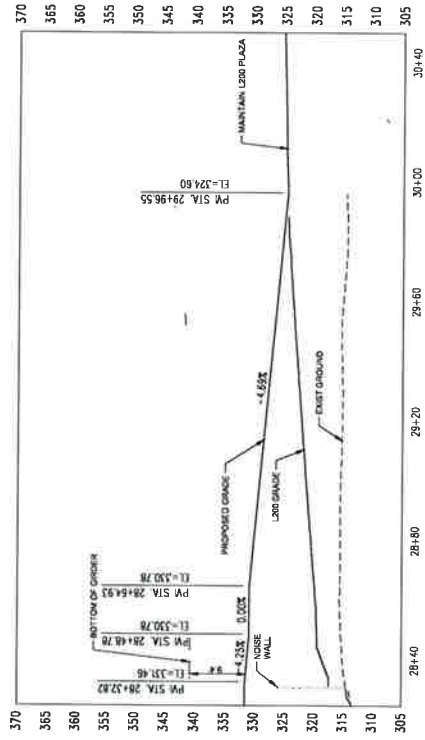
SHORELINE - N 148TH NON-MOTORIZED BRIDGE

FEBRUARY 2020

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Call before you dig

DRAFT TS&L

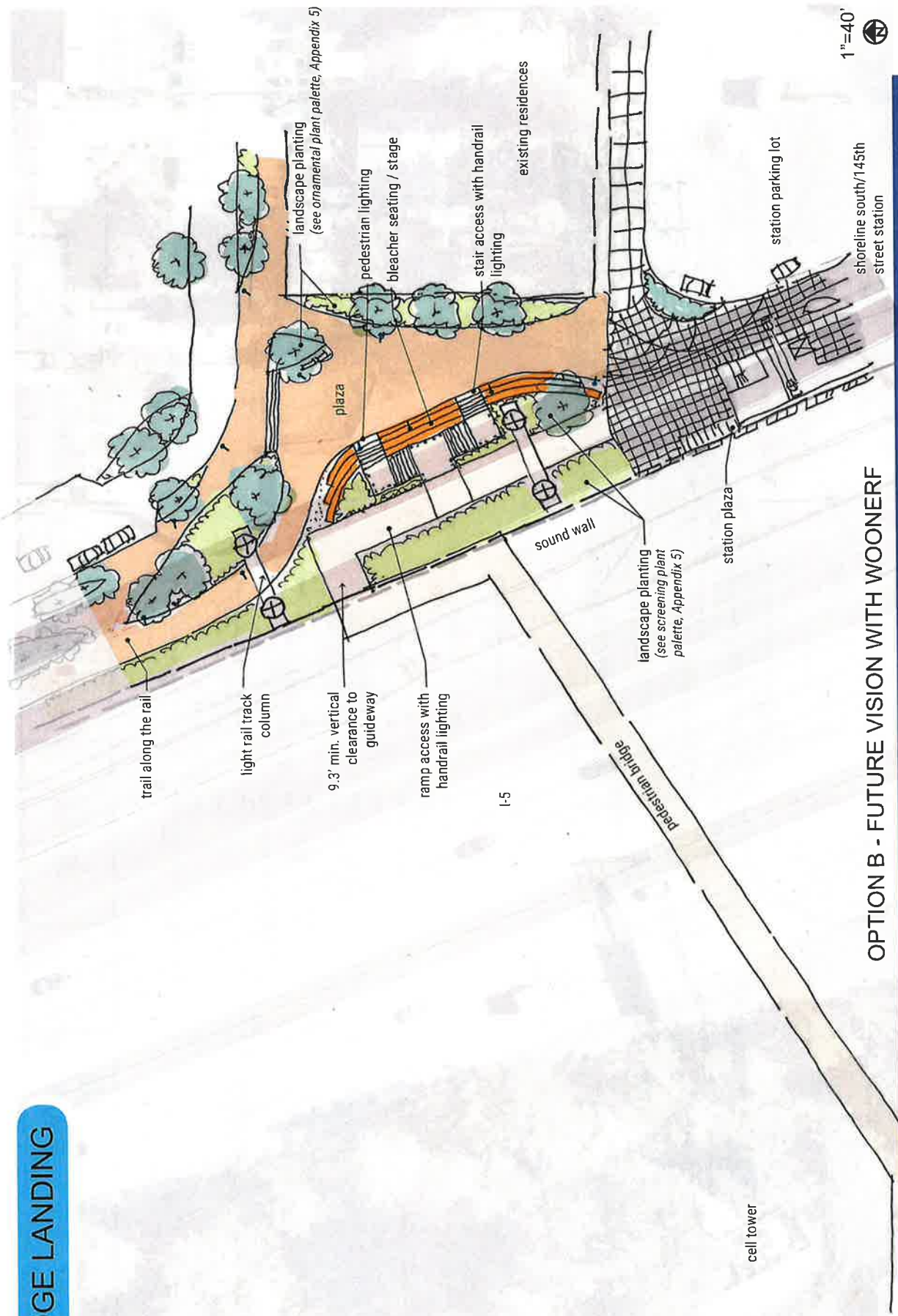
DRAWING NO.	C-3
PROJECT NO.	9263
FED AID NO.	XXXX
DATE:	XXXX
SHEET NO.	### OF XX

CITY OF SHORELINE
N 148 NON-MOTORIZED BRIDGE
WEST OPTION 2 SOUTH/EAST OPTION B

DRAWN BY	JIS
DESIGN BY	KI
CHECK BY	JIM
PROJECT MGR	LB



MARK	REVISION DESCRIPTION	BY	APP.	DATE



OPTION B - FUTURE VISION WITH WOONERF

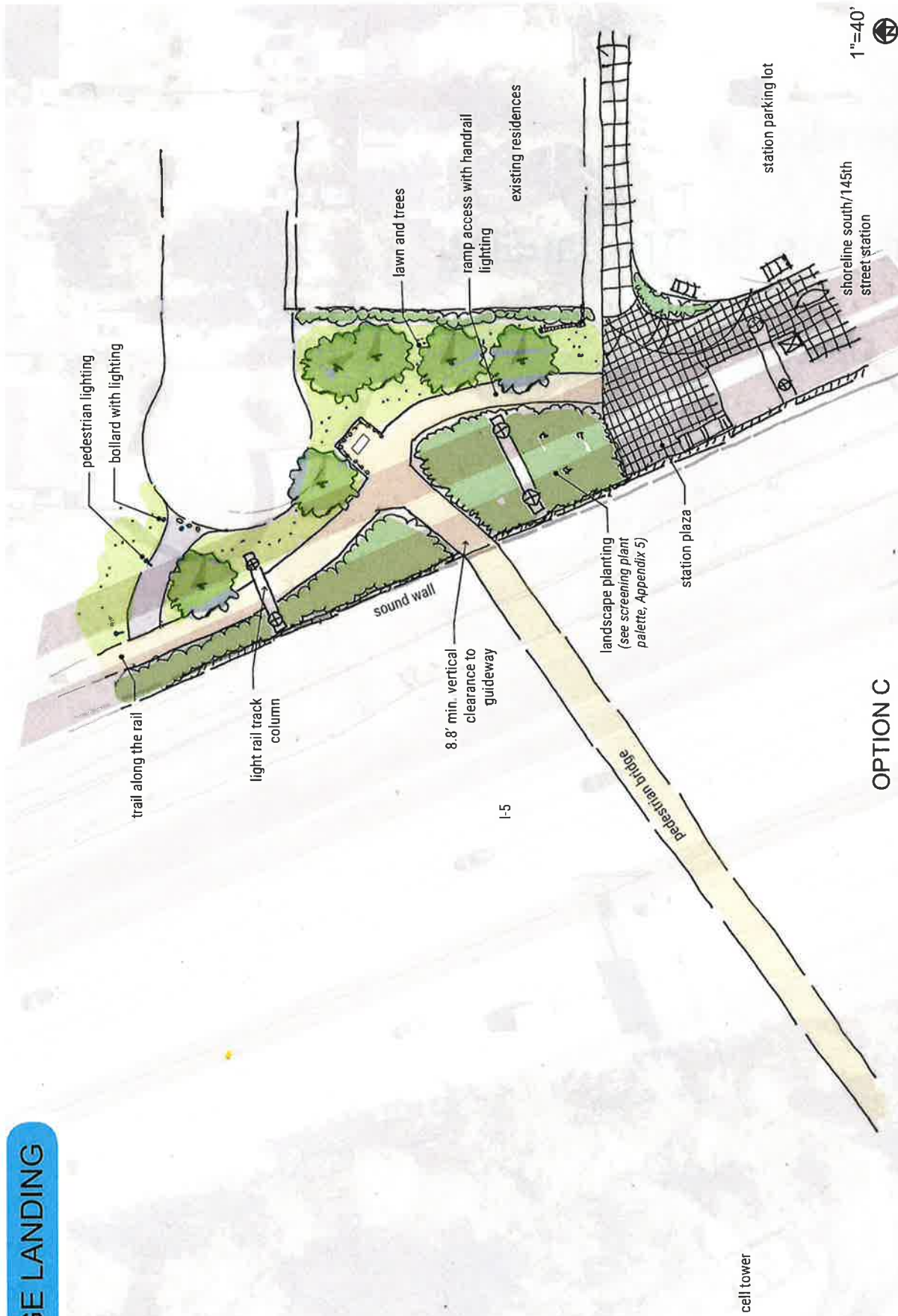
SHORELINE - N 148TH NON-MOTORIZED BRIDGE

FEBRUARY 2020

Appendix 3

East Side Bridge Landing

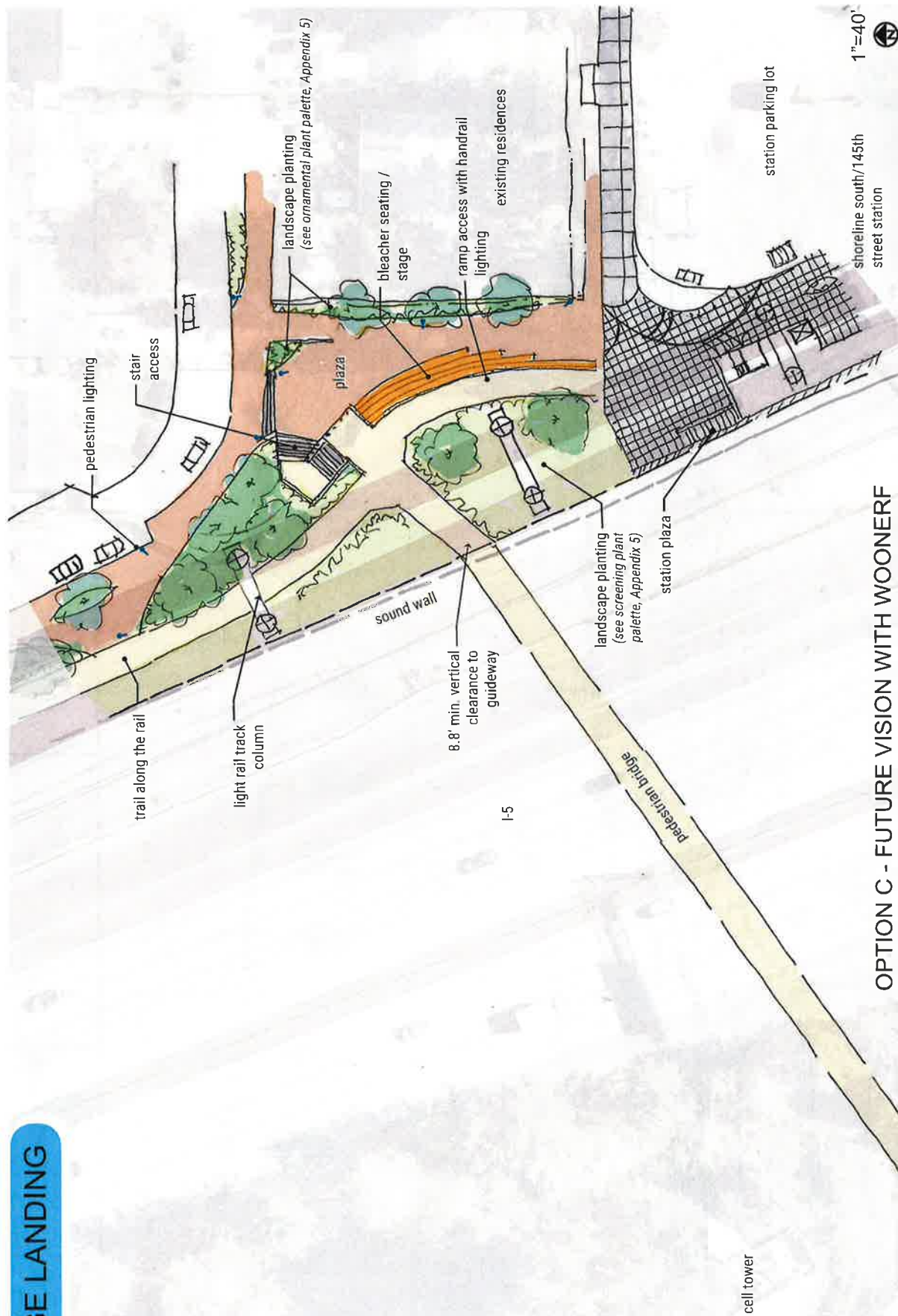
Option C



OPTION C

SHORELINE - N 148TH NON-MOTORIZED BRIDGE

FEBRUARY 2020



OPTION C - FUTURE VISION WITH WOONERF

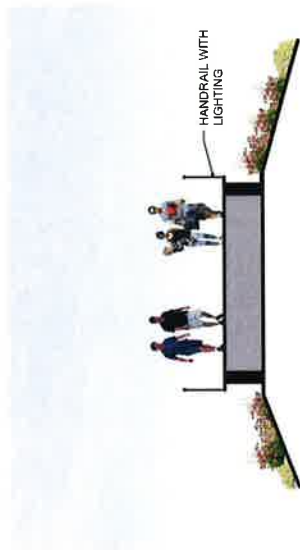
SHORELINE - N 148TH NON-MOTORIZED BRIDGE

FEBRUARY 2020

Appendix 3

East Side Bridge Landing

Bridge Landing Trail Section



EAST LANDING TRAIL SECTION
(@ RAMP DOWN FROM BRIDGE)

Appendix 4

Project Cost

Appendix 4

Project Cost

Project Cost Summary

YR	%
----	---

Construction	10%
Mobilization	40%
Contingency	
Construction Subtotal	

2024	4%	Escalated
------	----	-----------

20%	Engineering Design
4%	Escalated
2023	

2024	25% CM
	Escalated 4%

2022	6%	Escalated
------	----	-----------

	TOTAL	ROUNDED TOTAL
100%	100%	100%

TS&L COST SUMMARY MATRIX

PREPARED BY: LEB

DATE: 3/23/2020

***COSTS BELOW TAKEN FROM THE DRAFT TS&L REPORT**

West Side Trail Alignment				Bridge Main Span			East Side Landing		
Min. Build-out	Full Build-Out South	Full Build-Out North							
Option 1	Option 2	Option 3		Tied Arch	Combo Arch	Truss	Option A	Option B	
\$ 529,528	\$ 1,937,294	\$ 1,093,825	\$	\$ 5,844,200	\$ 6,282,200	\$ 7,019,850	\$ 1,649,590	\$ 2,098,305	
\$ 52,953	\$ 193,729	\$ 109,383	\$	\$ 584,420	\$ 628,220	\$ 701,985	\$ 164,959	\$ 209,831	
\$ 232,992	\$ 852,409	\$ 481,283	\$	\$ 2,571,448	\$ 2,764,168	\$ 3,088,734	\$ 725,820	\$ 923,254	
\$ 815,473	\$ 2,983,433	\$ 1,684,491	\$	\$ 9,000,068	\$ 9,674,588	\$ 10,810,569	\$ 2,540,369	\$ 3,231,390	
\$ 953,988	\$ 3,490,194	\$ 1,970,616	\$	\$ 10,528,807	\$ 11,317,900	\$ 12,646,837	\$ 2,971,872	\$ 3,780,269	
\$ 163,095	\$ 596,687	\$ 336,898	\$	\$ 1,800,014	\$ 1,934,918	\$ 2,162,114	\$ 508,074	\$ 646,278	
\$ 183,459	\$ 671,191	\$ 378,965	\$	\$ 2,024,770	\$ 2,176,519	\$ 2,432,084	\$ 571,514	\$ 726,975	
\$ 203,868	\$ 745,858	\$ 421,123	\$	\$ 2,250,017	\$ 2,418,647	\$ 2,702,642	\$ 635,092	\$ 807,847	
\$ 238,497	\$ 872,549	\$ 492,654	\$	\$ 2,632,202	\$ 2,829,475	\$ 3,161,709	\$ 742,968	\$ 945,067	
\$ 1,878,285	\$ 1,307,235	\$ 1,140,975	\$						
\$ 2,110,441	\$ 1,468,809	\$ 1,282,000	\$	\$ -	\$ -	\$ -	\$ -	\$ -	
\$ 3,486,386	\$ 6,502,743	\$ 4,124,234	\$	\$ 15,185,779	\$ 16,323,894	\$ 18,240,630	\$ 4,286,354	\$ 5,452,311	
\$ 3,486,390	\$ 6,502,750	\$ 4,124,240	\$	\$ 15,185,780	\$ 16,323,900	\$ 18,240,630	\$ 4,286,360	\$ 5,452,320	
\$ 3,486,390	\$ 6,502,750	\$ 4,124,240	\$	\$ 15,185,780	\$ 16,323,900	\$ 18,240,630	\$ 4,286,360	\$ 5,452,320	

SUMMARY TABLE

West Side Trail Alignment		Bridge Main Span	East Side Landing		
			Option A	Option B	Option C
Option 1 - Minimum Build-Out		Tied Arch	\$ 22,958,530	\$ 24,124,490	\$ 23,221,190
	\$ 3,486,390	Combination Arch	\$ 24,096,650	\$ 25,262,610	\$ 24,359,310
		Truss	\$ 26,013,380	\$ 27,179,340	\$ 26,276,040
Option 2 - Full Build-Out South		Tied Arch	\$ 25,974,890	\$ 27,140,850	\$ 26,237,550
	\$ 6,502,750	Combination Arch	\$ 27,113,010	\$ 28,278,970	\$ 27,375,670
		Truss	\$ 29,029,740	\$ 30,195,700	\$ 29,292,400
Option 3 - Full Build-Out North		Tied Arch	\$ 23,596,380	\$ 24,762,340	\$ 23,859,040
	\$ 4,124,240	Combination Arch	\$ 24,734,500	\$ 25,900,460	\$ 24,997,160
		Truss	\$ 26,651,230	\$ 27,817,190	\$ 26,913,890

Appendix 4

Project Cost

West Side Trail Connection Cost

N 148th Non-Motorized Bridge						
West Approach, Option 1 Minimal Build Out						
Item No.	Description	Unit	Unit Price	QTY	Total Price	Notes
Preparation						
1	CLEARING AND GRUBBING	ACRE	\$ 60,000	0.22	\$ 12,918	
2	REMOVE CURB	LF	\$ 5	22	\$ 110	
Grading						
3	ROADWAY EXCAVATION INCL. HAUL	CY	\$ 35	30	\$ 1,050	
4	GRAVEL BORROW INCL. HAUL	CY	\$ 40	990	\$ 39,600	
Structure						
5	MSE WALL	SF	\$ 45	1075	\$ 48,375.00	
6	BRIDGE SUPERSTRUCTURE	LS	\$ 46,700	1	\$ 46,700	
7	BRIDGE RAILING	LF	\$ 500	80	\$ 40,000	
Drainage						
8	---	-	\$ -	0	\$ -	
Surfacing						
9	CRUSHED SURFACING TOP COURSE	TON	\$ 60	60	\$ 3,600	
10	CURB RAMP	EA	\$ 6,000	1	\$ 6,000	
11	CEMENT CONCRETE SIDEWALK	SY	\$ 125	520	\$ 65,000	
Erosion Control and Planting						
12	LANDSCAPE EDGE RESTORATION - TRAIL	SY	\$ 45	850	\$ 38,250	
13	IRRIGATION SYSTEM COMPLETE	LS	\$ 35,000	1	\$ 35,000	
Other						
14	LIGHTING - TRAIL, PEDESTRIAN LUMINAIRE AND POLE	EA	\$ 2,200	8	\$ 17,600	
15	LIGHTING - TRAIL, CONDUIT, WIRING & ASSOCIATE ELECTRICAL COMPONENTS	LS	\$ 38,000	1	\$ 38,000	
16	RAILING, AT GRADE	LF	\$ 250	300	\$ 75,000	
17	PAVEMENT TREATMENT	SY	\$ 30	500	\$ 15,000	
18	DECORATIVE NODE PAVEMENT	SY	\$ 300	50	\$ 15,000	
19	BENCH	EA	\$ 3,500	1	\$ 3,500	
20	LITTER RECEPTACLE	EA	\$ 2,500	1	\$ 2,500	
21	WAYFINDING SIGN AND POLE	EA	\$ 3,500	1	\$ 3,500	
22	FENCING - TRAIL	LF	\$ 55	415	\$ 22,825	
TOTAL, Construction Cost, West Approach, Option 1 Minimal Build Out					\$ 529,528	
Construction Cost (including Mobilization)				10%	\$ 582,481	
Contingency				40%	\$ 232,992	
Construction Cost (including Mobilization, Contingency)					\$ 815,473	
Engineering Design				20%	\$ 163,095	(% of Constr Cost incl Mob and Contingency)
Construction Management & Administration				25%	\$ 203,868	(% of Constr Cost incl Mob and Contingency)
ROW Cost (including TCE, ROW Administration)					\$ 1,878,285	(see details below)
TOTAL ESTIMATED COST (2020)					\$ 3,060,730	

Notes

Total is in 2020 dollars
 Costs do not include sales tax or cost associated with permitting.
 Costs assume no cost for TCE on WSDOT property.
 Costs assume no ROW condemnation will be necessary.

ROW Cost Summary

Description	Unit	Unit Price	QTY	Total Price	Notes
ROW ACQUISITION	-	-	-	\$ 1,701,780	Option 1
TEMP CONST EASEMENT (TCE), MAIN SPAN ASSEMBLY	-	-	-	\$ 127,505	11,016 SF on private property
RIGHT OF WAY ADMINISTRATION	-	-	-	\$ 49,000	based on # of parcels
TOTAL, ROW Cost, West Approach, Option 1 Minimal Build Out				\$ 1,878,285	

N 148th Non-Motorized Bridge						
West Approach, Option 2 Full Build Out, South						
Item No.	Description	Unit	Unit Price	QTY	Total Price	Notes
Preparation						
1	CLEARING AND GRUBBING - TRAIL	ACRE	\$ 60,000	0.33	\$ 19,800	
2	CLEARING AND GRUBBING - PARKING MITIGATION	ACRE	\$ 60,000	0.46	\$ 27,414	
3	REMOVE CURB	LF	\$ 5	643	\$ 3,215	
4	REMOVE HMA CONCRETE	SY	\$ 12	610	\$ 7,320	
Grading						
5	ROADWAY EXCAVATION INCL. HAUL	CY	\$ 35	135	\$ 4,725	
6	ROADWAY EXCAVATION INCL. HAUL, PARKING MITIGATION	CY	\$ 35	80	\$ 2,800	
7	GRAVEL BORROW INCL. HAUL	CY	\$ 40	495	\$ 19,800	
8	GRAVEL BORROW INCL. HAUL, PARKING MITIGATION	CY	\$ 40	9915	\$ 396,600	
Structure						
9	MSE WALL - TRAIL	SF	\$ 45	1075	\$ 48,375	
10	MSE WALL - PARKING MITIGATION	SF	\$ 45	5540	\$ 249,300	
11	BRIDGE SUPERSTRUCTURE	LS	\$ 46,700	1	\$ 46,700	
12	BRIDGE RAILING	LF	\$ 500	80	\$ 40,000	
Drainage						
14	DETENTION - PARKING MITIGATION	CY	\$ 15	14000	\$ 210,000	
15	CATCH BASIN, TYPE 1	EA	\$ 2,000	3	\$ 6,000	
16	CATCH BASIN, TYPE 2	EA	\$ 3,500	2	\$ 7,000	
17	MODULAR WETLAND - PARKING MITIGATION	EA	\$ 17,500	1	\$ 17,500	
18	STORM DRAINAGE PIPE, 12" - TRAIL	LF	\$ 70	234	\$ 16,380	
19	STORM DRAINAGE PIPE, 12" - PARKING MITIGATION	LF	\$ 70	247	\$ 17,290	
Surfacing						
20	CRUSHED SURFACING TOP COURSE - TRAIL	TON	\$ 60	100	\$ 6,000	
21	CRUSHED SURFACING TOP COURSE - PARKING MITIGATION	TON	\$ 60	480	\$ 28,800	
22	HMA PAVING - PARKING MITIGATION	TON	\$ 150	530	\$ 79,500	
23	CURB RAMP	EA	\$ 6,000	1	\$ 6,000	
24	CEMENT CONCRETE SIDEWALK	SY	\$ 125	900	\$ 112,500	
25	CEMENT CONCRETE CURB	LF	\$ 75	1614	\$ 121,050	
Erosion Control and Planting						
26	LANDSCAPING - TRAIL	SY	\$ 120	250	\$ 30,000	
27	LANDSCAPING - PARKING MITIGATION	SY	\$ 120	430	\$ 51,600	
28	LANDSCAPE EDGE RESTORATION - TRAIL, PARKING MITIGATION & BRIDGE	SY	\$ 45	900	\$ 40,500	
29	IRRIGATION SYSTEM COMPLETE	LS	\$ 53,000	1	\$ 53,000	
Other						
30	LIGHTING - TRAIL, PEDESTRIAN LUMINAIRE AND POLE	EA	\$ 2,200	10	\$ 22,000	
31	LIGHTING - TRAIL, LIT BOLLARDS	EA	\$ 3,500	4	\$ 14,000	
32	LIGHTING - PARKING MITIGATION, LUMINAIRE AND POLE	EA	\$ 2,800	4	\$ 11,200	
33	LIGHTING - PARKING MITIGATION, DOUBLE LUMINAIRE & POLE	EA	\$ 3,300	4	\$ 13,200	
34	LIGHTING - TRAIL & PARKING MITIGATION, CONDUIT, WIRING & ASSOCIATED ELECTRICAL COMPONENTS	LS	\$ 57,000	1	\$ 57,000	
35	RAILING, AT GRADE	LF	\$ 250	300	\$ 75,000	
36	PAVEMENT TREATMENT - TRAIL	SY	\$ 30	580	\$ 17,400	
37	DECORATIVE NODE PAVEMENT	SY	\$ 300	75	\$ 22,500	
38	BENCH	EA	\$ 3,500	1	\$ 3,500	
39	LITTER RECEPTACLE	EA	\$ 2,500	1	\$ 2,500	
40	WAYFINDING SIGN AND POLE	EA	\$ 3,500	2	\$ 7,000	
41	FENCING - TRAIL	LF	\$ 55	415	\$ 22,825	
TOTAL, Construction Cost, West Approach, Option 2 Full Build Out, South					\$ 1,937,294	
Construction Cost (including Mobilization)			10%		\$ 2,131,023	
Contingency			40%		\$ 852,409	
Construction Cost (including Mobilization, Contingency)					\$ 2,983,433	
Engineering Design			20%		\$ 596,687	(% of Constr Cost incl Mob and Contingency)
Construction Management & Administration			25%		\$ 745,858	(% of Constr Cost incl Mob and Contingency)
ROW Cost (including TCE, ROW Administration)					\$ 1,307,235	(see details below)
TOTAL ESTIMATED COST (2020)					\$ 5,633,220	

Notes

Total is in 2020 dollars
Costs do not include sales tax or cost associated with permitting
Costs assume no cost for TCE on WSDOT property.
Costs assume no ROW condemnation will be necessary.

ROW Cost Summary

Description	Unit	Unit Price	QTY	Total Price	Notes
ROW ACQUISITION	-	-	-	\$ 1,130,730	
TEMP CONST EASEMENT (TCE), MAIN SPAN ASSEMBLY	-	-	-	\$ 127,505	11,016 SF on private property
RIGHT OF WAY ADMINISTRATION	-	-	-	\$ 49,000	based on # of parcels
TOTAL, ROW Cost, West Approach, Option 2 Full Build Out, South				\$ 1,307,235	

N 148th Non-Motorized Bridge						
West Approach, Option 3 Full Build Out, North						
Item No.	Description	Unit	Unit Price	QTY	Total Price	Notes
Preparation						
1	CLEARING AND GRUBBING	ACRE	\$ 60,000	0.33	\$ 19,880	
2	REMOVE CURB	LF	\$ 5	22	\$ 110	
3	REMOVE HMA CONCRETE	SY	\$ 12	330	\$ 3,960	
Grading						
4	ROADWAY EXCAVATION INCL. HAUL	CY	\$ 35	10	\$ 350	
5	GRAVEL BORROW INCL. HAUL	CY	\$ 40	800	\$ 32,000	
Structure						
6	CIP WALL	SF	\$ 80	1865	\$ 149,200	
7	BRIDGE SUPERSTRUCTURE	LS	\$ 46,700	1	\$ 46,700	
8	BRIDGE RAILING	LF	\$ 500	80	\$ 40,000	
Drainage						
9	DETENTION	CY	\$ 15	4000	\$ 60,000	
10	CATCH BASIN, TYPE 1	EA	\$ 2,000	2	\$ 4,000	
11	STORM DRAINAGE PIPE, 12"	LF	\$ 70	75	\$ 5,250	
Surfacing						
12	CRUSHED SURFACING TOP COURSE	TON	\$ 60	90	\$ 5,400	
13	CURB RAMP	EA	\$ 6,000	1	\$ 6,000	
14	CEMENT CONCRETE SIDEWALK	SY	\$ 125	880	\$ 110,000	
15	CEMENT CONCRETE CURB	LF	\$ 75	152	\$ 11,400	
Erosion Control and Planting						
16	LANDSCAPING - TRAIL	SY	\$ 120	525	\$ 63,000	
17	LANDSCAPE EDGE RESTORATION - TRAIL & BRIDGE	SY	\$ 45	600	\$ 27,000	
18	IRRIGATION SYSTEM COMPLETE	LS	\$ 35,000	1	\$ 35,000	
Other						
19	LIGHTING - TRAIL, PEDESTRIAN LUMINAIRE AND POLE	EA	\$ 2,200	10	\$ 22,000	
20	LIGHTING - TRAIL, LIT BOLLARDS	EA	\$ 3,500	4	\$ 14,000	
21	LIGHTING - TRAIL, CONDUIT, WIRING & ASSOCIATED ELECTRICAL COMPONENTS	LS	\$ 38,000	1	\$ 38,000	
22	RAILING, AT GRADE	LF	\$ 250	300	\$ 75,000	
23	PAVEMENT TREATMENT	SY	\$ 30	575	\$ 17,250	
24	DECORATIVE NODE PAVEMENT	SY	\$ 300	75	\$ 22,500	
25	BENCH	EA	\$ 3,500	1	\$ 3,500	
26	LITTER RECEPTACLE	EA	\$ 2,500	1	\$ 2,500	
27	WAYFINDING SIGN AND POLE	EA	\$ 3,500	2	\$ 7,000	
28	FENCING - TRAIL	LF	\$ 55	415	\$ 22,825	
29	UTILITY RELOCATION	LS	\$ 250,000	1	\$ 250,000	
TOTAL, Construction Cost, West Approach, Option 3 Full Build Out, North					\$ 1,093,825	
Construction Cost (including Mobilization)				10%	\$ 1,203,208	
Contingency				40%	\$ 481,283	
Construction Cost (including Mobilization, Contingency)					\$ 1,684,491	
Engineering Design				20%	\$ 336,898	(% of Constr Cost incl Mob and Contingency)
Construction Management & Administration				25%	\$ 421,123	(% of Constr Cost incl Mob and Contingency)
ROW Cost (including TCE, ROW Administration)					\$ 1,140,975	(see details below)
TOTAL ESTIMATED COST (2020)					\$ 3,583,490	

Notes

Total is in 2020 dollars
Costs do not include sales tax or cost associated with permitting.
Costs assume no cost for TCE on WSDOT property.
Costs assume no ROW condemnation will be necessary.

ROW Cost Summary

Description	Unit	Unit Price	QTY	Total Price	Notes
ROW ACQUISITION	-	-	-	\$ 964,470	
TEMP CONST EASEMENT (TCE), MAIN SPAN ASSEMBLY	-	-	-	\$ 127,505	11,016 SF on private property
RIGHT OF WAY ADMINISTRATION	-	-	-	\$ 49,000	based on # of parcels
TOTAL, ROW Cost, West Approach, Option 3 Full Build Out, North				\$ 1,140,975	

Appendix 4

Project Cost

Main Span Bridge Cost

N 148th Non-Motorized Bridge						
Bridge Main Span, Tied Arch						
Item No.	Description	Unit	Unit Price	QTY	Total Price	Notes
Structure						
1	BRIDGE SUBSTRUCTURE - MAIN SPAN	LS	\$ 770,000	1	\$ 770,000	
2	BRIDGE SUPERSTRUCTURE - MAIN SPAN	LS	\$ 2,365,000	1	\$ 2,365,000	
3	BRIDGE RAILING & THROW BARRIER	LF	\$ 800	540	\$ 432,000	
Traffic						
4	MAINTENANCE OF TRAFFIC, MAIN SPAN	LS	\$ 300,000	1	\$ 300,000	
Other						
5	SIGN BRIDGE	LS	\$ 300,000	1	\$ 300,000	remove existing and replace with new
6	LIGHTING - BRIDGE, SAFETY LIGHTING, NO CANOPY	LS	\$ 204,700	1	\$ 204,700	
7	LIGHTING - BRIDGE, ARCHITECTURAL LIGHTING, NO CANOPY	LS	\$ 356,500	1	\$ 356,500	
8	RESTORATION COST, MAIN SPAN ASSEMBLY	SF	\$ 45	24800	\$ 1,116,000	24,800 SF total area
TOTAL, Construction Cost, Bridge Main Span, Tied Arch					\$ 5,844,200	
Construction Cost (including Mobilization)					10%	\$ 6,428,620
Contingency					40%	\$ 2,571,448
Construction Cost (including Mobilization, Contingency)						\$ 9,000,068
Engineering Design					20%	\$ 1,800,014 (% of Constr Cost incl Mob and Contingency)
Construction Management & Administration					25%	\$ 2,250,017 (% of Constr Cost incl Mob and Contingency)
ROW Cost (including TCE, ROW Administration)						\$ -
TOTAL ESTIMATED COST (2020)						\$ 13,050,100

Notes

Total is in 2020 dollars

Costs do not include sales tax or cost associated with permitting.

Cost Difference with Canopy

Description	Unit	Unit Price	QTY	Total Price
BRIDGE CANOPY	LS	\$ 519,000	1	\$ 519,000
LIGHTING - BRIDGE, SAFETY LIGHTING, NO CANOPY	LS	\$ (204,700)	1	\$ (204,700)
LIGHTING - BRIDGE, ARCHITECTURAL LIGHTING, NO CANOPY	LS	\$ (356,500)	1	\$ (356,500)
LIGHTING - BRIDGE, SAFETY LIGHTING, W/ CANOPY	LS	\$ 127,650	1	\$ 127,650
LIGHTING - BRIDGE, ARCHITECTURAL LIGHTING, W/ CANOPY	LS	\$ 356,500	1	\$ 356,500
TOTAL, Canopy and Associated Lighting				\$ 441,950

Total does not include costs for mobilization, construction management, engineering design, or contingency.

N 148th Non-Motorized Bridge
Bridge Main Span, Combination Arch

Item No.	Description	Unit	Unit Price	QTY	Total Price	Notes
Structure						
1	BRIDGE SUBSTRUCTURE - MAIN SPAN	LS	\$ 770,000	1	\$ 770,000	
2	BRIDGE SUPERSTRUCTURE - MAIN SPAN	LS	\$ 2,803,000	1	\$ 2,803,000	
3	BRIDGE RAILING & THROW BARRIER	LF	\$ 800	540	\$ 432,000	
Traffic						
4	MAINTENANCE OF TRAFFIC, MAIN SPAN	LS	\$ 300,000	1	\$ 300,000	
Other						
5	SIGN BRIDGE	LS	\$ 300,000	1	\$ 300,000	remove existing and replace with new
6	LIGHTING - BRIDGE, SAFETY LIGHTING, NO CANOPY	LS	\$ 204,700	1	\$ 204,700	
7	LIGHTING - BRIDGE, ARCHITECTURAL LIGHTING, NO CANOPY	LS	\$ 356,500	1	\$ 356,500	
8	RESTORATION COST, MAIN SPAN ASSEMBLY	SF	\$ 45	24800	\$ 1,116,000	24,800 SF total area
TOTAL, Construction Cost, Bridge Main Span, Combination Arch					\$ 6,282,200	
Construction Cost (including Mobilization)					10%	\$ 6,910,420
Contingency					40%	\$ 2,764,168
Construction Cost (including Mobilization, Contingency)						\$ 9,674,588
Engineering Design					20%	\$ 1,934,918 (% of Constr Cost incl Mob and Contingency)
Construction Management & Administration					25%	\$ 2,418,647 (% of Constr Cost incl Mob and Contingency)
ROW Cost (including TCE, ROW Administration)						\$
TOTAL ESTIMATED COST (2020)						\$ 14,028,160

Notes

Total is in 2020 dollars

Costs do not include sales tax or cost associated with permitting.

Cost Difference with Canopy

Description	Unit	Unit Price	QTY	Total Price
BRIDGE CANOPY	LS	\$ 216,000	1	\$ 216,000
LIGHTING - BRIDGE, SAFETY LIGHTING, NO CANOPY	LS	\$ (204,700)	1	\$ (204,700)
LIGHTING - BRIDGE, ARCHITECTURAL LIGHTING, NO CANOPY	LS	\$ (356,500)	1	\$ (356,500)
LIGHTING - BRIDGE, SAFETY LIGHTING, W/ CANOPY	LS	\$ 127,650	1	\$ 127,650
LIGHTING - BRIDGE, ARCHITECTURAL LIGHTING, W/ CANOPY	LS	\$ 356,500	1	\$ 356,500
TOTAL, Canopy and Associated Lighting				\$ 138,950

Total does not include costs for mobilization, construction management, engineering design, or contingency.

N 148th Non-Motorized Bridge						
Bridge Main Span, Truss						
Item No.	Description	Unit	Unit Price	QTY	Total Price	Notes
Structure						
1	BRIDGE SUBSTRUCTURE - MAIN SPAN	LS	\$ 770,000	1	\$ 770,000	
2	BRIDGE SUPERSTRUCTURE - MAIN SPAN	LS	\$ 3,459,000	1	\$ 3,459,000	
3	BRIDGE RAILING & THROW BARRIER	LF	\$ 800	540	\$ 432,000	
Traffic						
4	MAINTENANCE OF TRAFFIC, MAIN SPAN	LS	\$ 300,000	1	\$ 300,000	
Other						
5	SIGN BRIDGE	LS	\$ 300,000	1	\$ 300,000	remove existing and replace with new
6	LIGHTING - BRIDGE, SAFETY LIGHTING, NO CANOPY	LS	\$ 227,700	1	\$ 227,700	
7	LIGHTING - BRIDGE, ARCHITECTURAL LIGHTING, NO CANOPY	LS	\$ 415,150	1	\$ 415,150	
8	RESTORATION COST, MAIN SPAN ASSEMBLY	SF	\$ 45	24800	\$ 1,116,000	24,800 SF total area
TOTAL, Construction Cost, Bridge Main Span, Truss					\$ 7,019,850	
Construction Cost (including Mobilization)				10%	\$ 7,721,835	
Contingency				40%	\$ 3,088,734	
Construction Cost (including Mobilization, Contingency)					\$ 10,810,569	
Engineering Design				20%	\$ 2,162,114	(% of Constr Cost incl Mob and Contingency)
Construction Management & Administration				25%	\$ 2,702,642	(% of Constr Cost incl Mob and Contingency)
ROW Cost (including TCE, ROW Administration)					\$ -	
TOTAL ESTIMATED COST (2020)					\$ 15,675,330	

Notes

Total is in 2020 dollars

Costs do not include sales tax or cost associated with permitting.

Cost Difference with Canopy

Description	Unit	Unit Price	QTY	Total Price
BRIDGE CANOPY	LS	\$ 216,000	1	\$ 216,000
LIGHTING - BRIDGE, SAFETY LIGHTING, NO CANOPY	LS	\$ (227,700)	1	\$ (227,700)
LIGHTING - BRIDGE, ARCHITECTURAL LIGHTING, NO CANOPY	LS	\$ (415,150)	1	\$ (415,150)
LIGHTING - BRIDGE, SAFETY LIGHTING, W/ CANOPY	LS	\$ 127,650	1	\$ 127,650
LIGHTING - BRIDGE, ARCHITECTURAL LIGHTING, W/ CANOPY	LS	\$ 356,500	1	\$ 356,500
TOTAL, Canopy and Associated Lighting				\$ 57,300

Total does not include costs for mobilization, construction management, engineering design, or contingency.

Appendix 4

Project Cost

East Side Bridge Landing Cost

N 148th Non-Motorized Bridge										
East Approach, Option A										
Item No.	Description	Option A				Option A -> Future Vision with Woonerf				Notes
		Unit	Unit Price	QTY	Total Price	Unit	Unit Price	QTY	Total Price	
	Grading									
1	ROADWAY EXCAVATION INCL. HAUL	CY	\$ 35	40	\$ 1,400					
2	LIGHTWEIGHT FILL	CY	\$ 100	5165	\$ 516,500					
	Structure									
3	WALL - TRAIL	SF	\$ 45	616	\$ 27,720					
4	WALL - I-5 SOUND WALL	SF	\$ 120	2291	\$ 274,920					
5	COLUMN SILO	EA	\$ 75,000	3	\$ 225,000					
	Drainage									
6	DRAINAGE FEATURES	-	\$ -	0	\$ -	LS	\$ 125,000	1	\$ 125,000	
	Surfacing									
7	CRUSHED SURFACING TOP COURSE	TON	\$ 60	100	\$ 6,000					
8	RAMP PAVEMENT TREATMENT	SY	\$ 30	275	\$ 8,250					
9	WOONERF PLAZA PAVEMENT	SY	\$ -	0	\$ -	SY	\$ 250	475	\$ 118,750	
10	DECORATIVE CEMENT CONCRETE PLAZA PAVEMENT	SY	\$ -	0	\$ -	SY	\$ 150	720	\$ 108,000	
11	HMA PAVING	TON	\$ 200	80	\$ 16,000					
12	CEMENT CONCRETE SIDEWALK	SY	\$ 125	260	\$ 32,500					
	Erosion Control and Planting									
13	LANDSCAPE SCREENING (SHRUB AND GROUNDCOVER) - BRIDGE/LANDING STRUCTURE	SY	\$ 70	630	\$ 44,100					
14	LANDSCAPE RESTORATION (SEEDING)	SY	\$ 6	600	\$ 3,600					
15	LANDSCAPE PLANTINGS (TREE, SHRUB AND GROUNDCOVER) - PLAZA	SY	\$ -	0	\$ -	SY	\$ 120	400	\$ 48,000	
16	IRRIGATION SYSTEM COMPLETE	LS	\$ 45,000	1	\$ 45,000	LS	\$ 15,000	1	\$ 15,000	
	Other									
17	LIGHTING, COLUMN LIGHTS	EA	\$ 5,050	5	\$ 25,250	EA	\$ 5,050	13	\$ 65,650	
18	LIGHTING, LINEAR LUMINAIRE STRIP AT SEAT WALL	LF	\$ -	0	\$ -	LF	\$ 115	300	\$ 34,500	
19	LIGHTING, TREE ACCENT UPLIGHTS	EA	\$ 1,300	7	\$ 9,100	EA	\$ 1,300	7	\$ 9,100	
20	LIGHTING, BRIDGE, EAST (HANDRAIL)	LF	\$ 250	440	\$ 110,000	LF	\$ 250	20	\$ 5,000	
21	LIGHTING, CONDUIT, WIRING & ASSOCIATED ELECTRICAL COMPONENTS	LS	\$ 72,000	1	\$ 72,000	LS	\$ 34,000	1	\$ 34,000	
22	LIGHTING, LIT BOLLARDS	EA	\$ 3,500	3	\$ 10,500					
23	RAILING	LF	\$ 250	640	\$ 160,000					
24	LITTER RECEPTACLE	EA	\$ 2,500	2	\$ 5,000	EA	\$ 2,500	1	\$ 2,500	
25	STAIRS	CY	\$ 250	185	\$ 46,250	CY	\$ 250	16	\$ 4,000	
26	WAYFINDING SIGN AND POLE	EA	\$ 3,500	2	\$ 7,000	EA	\$ 3,500	1	\$ 3,500	
27	BLEACHER SEAT WALL	LF	\$ -	0	\$ -	LF	\$ 750	300	\$ 225,000	
28	BENCH	EA	\$ 3,500	1	\$ 3,500					
TOTAL, Construction Cost, East Approach, Option A		Option A			\$ 1,649,590	Option A -> Future Vision with Woonerf			\$ 798,000	
Construction Cost (including Mobilization)		10%			\$ 1,814,549					
Contingency		40%			\$ 725,820					
Construction Cost (including Mobilization, Contingency)					\$ 2,540,369					
Engineering Design		20%			\$ 508,074	(% of Constr Cost incl Mob and Contingency)				
Construction Management & Administration		25%			\$ 635,092	(% of Constr Cost incl Mob and Contingency)				
ROW Cost (including TCE, ROW Administration)					\$ -					
TOTAL ESTIMATED COST (2020)					\$ 3,683,540					

Notes

Total is in 2020 dollars
Costs do not include sales tax or cost associated with permitting.
Costs assume no cost for TCE on WSDOT property.

N 148th Non-Motorized Bridge
East Approach, Option B

East Approach, Option B		Option B				Option B -> Future Vision with Woonerf				
Item No.	Description	Unit	Unit Price	QTY	Total Price	Unit	Unit Price	QTY	Total Price	Notes
	Grading									
1	ROADWAY EXCAVATION INCL. HAUL	CY	\$ 35	5	\$ 175					
2	LIGHTWEIGHT FILL	CY	\$ 100	4180	\$ 418,000					
	Structure									
3	WALL - TRAIL	SF	\$ 45	712	\$ 32,040					
4	WALL - I-5 SOUND WALL	SF	\$ 120	2417	\$ 290,040					
5	BRIDGE SUBSTRUCTURE	LS	\$ 167,600	1	\$ 167,600					
6	BRIDGE SUPERSTRUCTURE	LS	\$ 81,700	1	\$ 81,700					
7	BRIDGE RAILING	LF	\$ 500	150	\$ 75,000					
8	COLUMN SILO	EA	\$ 75,000	4	\$ 300,000					
	Drainage									
9	DRAINAGE FEATURES	-	\$ -	0	\$ -	LS	\$ 100,000	1	\$ 100,000	
	Surfacing									
10	CRUSHED SURFACING TOP COURSE	TON	\$ 60	130	\$ 7,800					
11	RAMP PAVEMENT TREATMENT	SY	\$ 30	540	\$ 16,200					
12	WOONERF PLAZA PAVEMENT	SY	\$ -	0	\$ -	SY	\$ 250	560	\$ 140,000	
13	DECORATIVE CEMENT CONCRETE PLAZA PAVEMENT	SY	\$ -	0	\$ -	SY	\$ 150	840	\$ 126,000	
14	HMA PAVING	TON	\$ 200	90	\$ 18,000					
15	CEMENT CONCRETE SIDEWALK	SY	\$ 125	330	\$ 41,250					
	Erosion Control and Planting									
16	LANDSCAPE SCREENING (SHRUB AND GROUNDCOVER) - BRIDGE/LANDING STRUCTURE	SY	\$ 70	700	\$ 49,000					
17	LANDSCAPE RESTORATION (SEEDING)	SY	\$ 6	775	\$ 4,650					
18	LANDSCAPE PLANTINGS (TREE, SHRUB AND GROUNDCOVER) - PLAZA	SY	\$ -	0	\$ -	SY	\$ 120	650	\$ 78,000	
19	IRRIGATION SYSTEM COMPLETE	LS	\$ 53,000	1	\$ 53,000	LS	\$ 20,000	1	\$ 20,000	
	Other									
20	LIGHTING, COLUMN LIGHTS	EA	\$ 5,050	5	\$ 25,250	EA	\$ 5,050	13	\$ 65,650	
21	LIGHTING, LINEAR LUMINAIRE STRIP AT SEAT WALL	LF	\$ -	0	\$ -	LF	\$ 115	340	\$ 39,100	
22	LIGHTING, TREE ACCENT UPLIGHTS	EA	\$ 1,300	7	\$ 9,100	EA	\$ 1,300	7	\$ 9,100	
23	LIGHTING, BRIDGE, EAST (HANDRAIL)	LF	\$ 250	710	\$ 177,500	LF	\$ 250	70	\$ 17,500	
24	LIGHTING, CONDUIT, WIRING & ASSOCIATED ELECTRICAL COMPONENTS	LS	\$ 107,000	1	\$ 107,000	LS	\$ 33,000	1	\$ 33,000	
25	LIGHTING, LIT BOLLARDS	EA	\$ 3,500	3	\$ 10,500					
26	RAILING	LF	\$ 250	710	\$ 177,500	LF	\$ 250	70	\$ 17,500	
27	LITTER RECEPTACLE	EA	\$ 2,500	2	\$ 5,000	EA	\$ 2,500	1	\$ 2,500	
28	STAIRS	CY	\$ 250	86	\$ 21,500	CY	\$ 250	23	\$ 5,750	
29	WAYFINDING SIGN AND POLE	EA	\$ 3,500	2	\$ 7,000	EA	\$ 3,500	1	\$ 3,500	
30	BLEACHER SEAT WALL	LF	\$ -	0	\$ -	LF	\$ 750	340	\$ 255,000	
31	BENCH	EA	\$ 3,500	1	\$ 3,500					
TOTAL, Construction Cost, East Approach, Option B		Option B				Option B -> Future Vision with Woonerf				
Construction Cost (including Mobilization)			10%		\$ 2,308,136					
Contingency			40%		\$ 923,254					
Construction Cost (including Mobilization, Contingency)					\$ 3,231,390					
Engineering Design			20%		\$ 646,278	(%) of Constr Cost incl Mob and Contingency				
Construction Management & Administration			25%		\$ 807,847	(%) of Constr Cost incl Mob and Contingency				
ROW Cost (including TCE, ROW Administration)					\$ -					
TOTAL ESTIMATED COST (2020)					\$ 4,685,520					

Notes

Total is in 2020 dollars
 Costs do not include sales tax or cost associated with permitting.
 Costs assume no cost for TCE on WSDOT property.

N 148th Non-Motorized Bridge										
East Approach, Option C										
Item No.	Description	Option C				Option C -> Future Vision with Woonerf				Notes
		Unit	Unit Price	QTY	Total Price	Unit	Unit Price	QTY	Total Price	
Grading										
1	ROADWAY EXCAVATION INCL. HAUL	CY	\$ 35	15	\$ 525					
2	LIGHTWEIGHT FILL	CY	\$ 100	6425	\$ 642,500					
Structure										
3	WALL - TRAIL	SF	\$ 45	1640	\$ 73,800					
4	COLUMN SILO	EA	\$ 75,000	3	\$ 225,000					
Drainage										
5	CATCH BASIN, TYPE 1	EA	\$ 2,000	2	\$ 4,000					
6	STORM DRAINAGE PIPE, 12"	LF	\$ 70	125	\$ 8,750					
7	DRAINAGE FEATURES	-	\$ -	0	\$ -	LS	\$ 125,000	1	\$ 125,000	
Surfacing										
8	CRUSHED SURFACING TOP COURSE	TON	\$ 60	90	\$ 5,400					
9	RAMP PAVEMENT TREATMENT	SY	\$ 30	730	\$ 21,900					
10	WOONERF PLAZA PAVEMENT	SY	\$ -	0	\$ -	SY	\$ 250	430	\$ 107,500	
11	DECORATIVE CEMENT CONCRETE PLAZA PAVEMENT	SY	\$ -	0	\$ -	SY	\$ 150	650	\$ 97,500	
12	CEMENT CONCRETE SIDEWALK	SY	\$ 125	840	\$ 105,000					
Erosion Control and Planting										
13	LANDSCAPE SCREENING (SHRUB AND GROUNDCOVER) - BRIDGE/LANDING STRUCTURE	SY	\$ 70	1300	\$ 91,000					
14	LANDSCAPE RESTORATION (SEEDING)	SY	\$ 6	1150	\$ 6,900					
15	LANDSCAPE PLANTINGS (TREE, SHRUB AND GROUNDCOVER) - PLAZA	SY	\$ -	0	\$ -	SY	\$ 120	650	\$ 78,000	
16	IRRIGATION SYSTEM COMPLETE	LS	\$ 80,000	1	\$ 80,000	LS	\$ 20,000	1	\$ 20,000	
Other										
17	LIGHTING, COLUMN LIGHTS	EA	\$ 5,050	2	\$ 10,100	EA	\$ 5,050	7	\$ 35,350	
18	LIGHTING, LINEAR LUMINAIRE STRIP AT SEAT WALL	LF	\$ -	0	\$ -	LF	\$ 115	370	\$ 42,550	
19	LIGHTING, TREE ACCENT UPLIGHTS	EA	\$ 1,300	11	\$ 14,300	EA	\$ 1,300	7	\$ 9,100	
20	LIGHTING, BRIDGE, EAST (HANDRAIL)	LF	\$ 250	720	\$ 180,000	LF	\$ 250	120	\$ 30,000	
21	LIGHTING, CONDUIT, WIRING & ASSOCIATED ELECTRICAL COMPONENTS	LS	\$ 79,000	1	\$ 79,000	LS	\$ 34,000	1	\$ 34,000	
22	LIGHTING, LIT BOLLARDS	EA	\$ 3,500	2	\$ 7,000					
23	RAILING	LF	\$ 250	720	\$ 180,000	LF	\$ 250	120	\$ 30,000	
24	LITTER RECEPTACLE	EA	\$ 2,500	2	\$ 5,000	EA	\$ 2,500	1	\$ 2,500	
25	STAIRS	CY	\$ 250	0	\$ -	CY	\$ 250	225	\$ 56,250	
26	WAYFINDING SIGN AND POLE	EA	\$ 3,500	2	\$ 7,000	EA	\$ 3,500	1	\$ 3,500	
27	BLEACHER SEAT WALL	LF	\$ -	0	\$ -	LF	\$ 750	371	\$ 278,250	
28	BENCH	EA	\$ 3,500	1	\$ 3,500					
TOTAL, Construction Cost, East Approach, Option C		Option C			\$ 1,750,675	Option C -> Future Vision with Woonerf			\$ 949,500	
Construction Cost (including Mobilization)		10%			\$ 1,925,743					
Contingency		40%			\$ 770,297					
Construction Cost (including Mobilization, Contingency)					\$ 2,696,040					
Engineering Design		20%			\$ 539,208	(% of Constr Cost incl Mob and Contingency)				
Construction Management & Administration		25%			\$ 674,010	(% of Constr Cost incl Mob and Contingency)				
ROW Cost (including TCE, ROW Administration)					\$ -					
TOTAL ESTIMATED COST (2020)					\$ 3,909,260					

Notes

Total is in 2020 dollars
Costs do not include sales tax or cost associated with permitting.
Costs assume no cost for TCE on WSDOT property.

Appendix 4

Project Cost

Basis of Right-of-Way Cost



Cost Estimate
Project: City of Shoreline - N 148th Street Non-Motorized Bridge Project
February 28, 2020

West Approach, Acquisition and Easement Cost

PARCEL INFORMATION															ESTIMATED ACQUISITION AREAS					ESTIMATED VALUE (\$)				
Tax Parcel #	OWNER	PARCEL ADDRESS	Zoning	Parcel Lot Size (acres)	Parcel Lot Size (SF)	FEE Acquisition Area (SF)	TCE (SF)	Access Easement (SF)	Existing Improvements	Estimated Land Value (\$/SF)	Est. FEE Acquisition Value	Est. TCE Value	Est. Access Eas. Value	Est. Existing Improvements Value	Total									
Opt 1	288170-0340-04	Church of Christ	MUR70	3.15	137,214	2,742			0 Trees	\$ 70.00	\$ 191,940	\$ -	\$ -	\$ -	\$ 191,940									
	288170-0342-02	Shoreline Unitarian Universalist Church	MUR70	1.59	69,103	6,223		7,379	Landscaping/parking	\$ 80.00	\$ 497,840	\$ -	\$ 295,160	\$ -	\$ 793,000									
	288170-0343-01	The Philippi Presbyterian Church of Seattle	MUR70	1.83	79,704	6,595		4,731	Landscaping/parking	\$ 80.00	\$ 527,600	\$ -	\$ 189,240	\$ -	\$ 716,840									
															Option 1 Total					\$ 1,701,780				
Opt 2 South	288170-0340-04	Church of Christ	MUR70	3.15	137,214	1,919			0 Trees	\$ 70.00	\$ 134,330	\$ -	\$ -	\$ -	\$ 134,330									
	288170-0342-02	Shoreline Unitarian Universalist Church	MUR70	1.59	69,103	6,154		0	Landscaping/parking	\$ 80.00	\$ 492,320	\$ -	\$ -	\$ -	\$ 492,320									
	288170-0343-01	The Philippi Presbyterian Church of Seattle	MUR70	1.83	79,704	6,301		0	Landscaping/parking	\$ 80.00	\$ 504,080	\$ -	\$ -	\$ -	\$ 504,080									
															Option 2 South Total					\$ 1,130,730				
Opt 3 North	288170-0340-04	Church of Christ	MUR70	3.15	137,214	8,113			0 Landscaping/Trees	\$ 70.00	\$ 567,910	\$ -	\$ -	\$ -	\$ 567,910									
	288170-0342-02	Shoreline Unitarian Universalist Church	MUR70	1.59	69,103	2,127		0	Landscaping/parking	\$ 80.00	\$ 170,160	\$ -	\$ -	\$ -	\$ 170,160									
	288170-0343-01	The Philippi Presbyterian Church of Seattle	MUR70	1.83	79,704	2,830		0	Landscaping/parking	\$ 80.00	\$ 226,400	\$ -	\$ -	\$ -	\$ 226,400									
															Option 3 North Total					\$ 964,470				

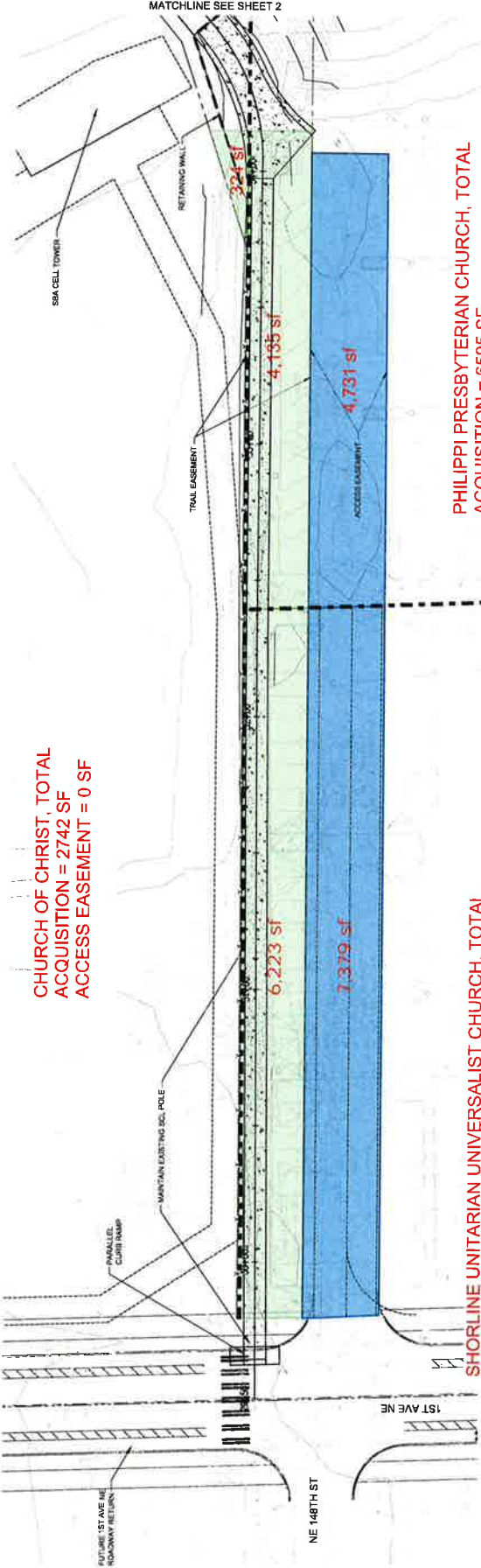
Bridge Main Span Assembly, Temporary Construction Easement Cost

PARCEL INFORMATION										ESTIMATED ACQUISITION AREAS					ESTIMATED VALUE (\$)			
Tax Parcel #	OWNER	PARCEL ADDRESS	Zoning	Parcel Lot Size (acres)	Parcel Lot Size (SF)	FEE Acquisition Area (SF)	TCE (SF)	Access Easement (SF)	Existing Improvements	Estimated Land Value (\$/SF)	Est. FEE Acquisition Value	Est. TCE Value	Est. Access Eas. Value	Est. Existing Improvements Value	Total			
North Assembly	288170-0340-04	Church of Christ	MUR70	3.15	137,214	0	29,728	0	0 Trees	\$ 70.00	\$ -	\$ 312,144	\$ -	\$ -	\$ 312,144			
	288170-0342-02	Shoreline Unitarian Universalist Church	MUR70	1.59	69,103	0	0	0	0 Landscaping/parking	\$ 80.00	\$ -	\$ -	\$ -	\$ -	\$ -			
	288170-0343-01	The Philippi Presbyterian Church of Seattle	MUR70	1.83	79,704	0	2,080	0	0 Landscaping/parking	\$ 80.00	\$ -	\$ 24,960	\$ -	\$ -	\$ 24,960			
										North Assembly Total					\$ 337,104			
South Assembly	288170-0340-04	Church of Christ	MUR70	3.15	137,214	0	3,125	0	0 Trees	\$ 70.00	\$ -	\$ 32,812.50	\$ -	\$ -	\$ 32,813			
	288170-0342-02	Shoreline Unitarian Universalist Church	MUR70	1.59	69,103	0	0	0	0 Landscaping/parking	\$ 80.00	\$ -	\$ -	\$ -	\$ -	\$ -			
	288170-0343-01	The Philippi Presbyterian Church of Seattle	MUR70	1.83	79,704	0	7,891	0	0 Landscaping/parking	\$ 90.00	\$ -	\$ 94,692.00	\$ -	\$ -	\$ 94,692			
										South Assembly Total					\$ 127,505			



SE 1/4 SEC 08, NE 1/4 SEC 07, T 25 N, R6E, WM

BASIS FOR RIGHT OF WAY COST, OPTION 1, MINIMAL BUILD



CHURCH OF CHRIST, TOTAL
ACQUISITION = 2742 SF
ACCESS EASEMENT = 0 SF

SHORLINE UNITARIAN UNIVERSALIST CHURCH, TOTAL
ACQUISITION = 6223 SF
ACCESS EASEMENT = 7379 SF


PHILIPPI PRESBYTERIAN CHURCH, TOTAL
ACQUISITION = 6595 SF
ACCESS EASEMENT = 4731 SF

MATCHLINE SEE SHEET 2



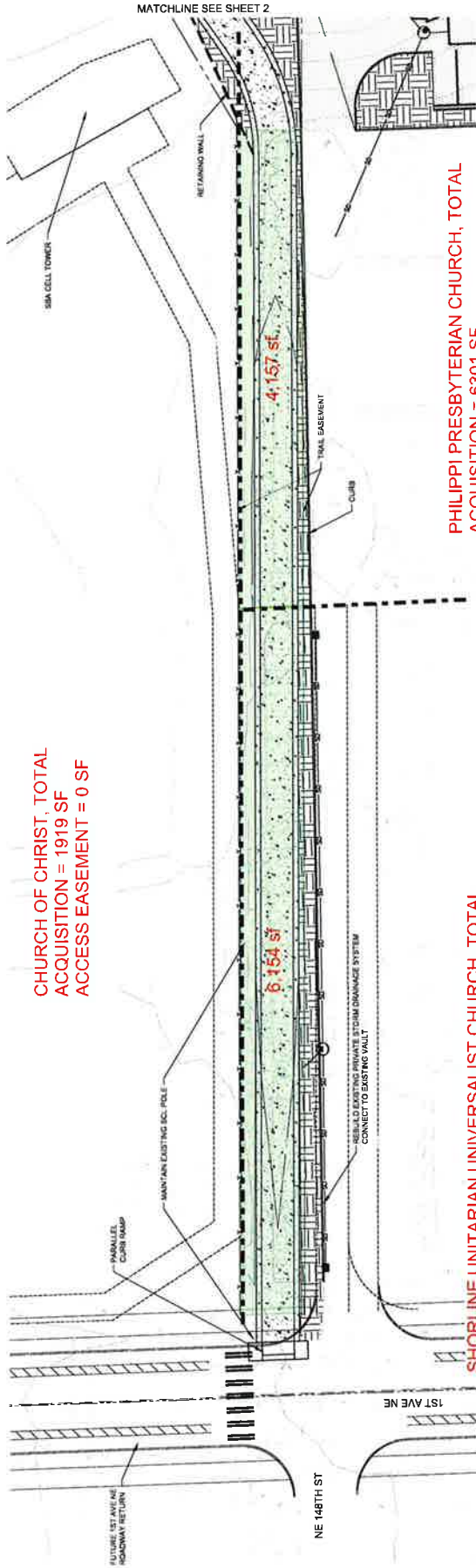
Know what's below
Call before you dig

TS&L

																				CITY OF SHORELINE			
																				N 148 NON-MOTORIZED BRIDGE			
																				BASIS FOR RIGHT OF WAY COST, OPTION 1			
																				DRAWN BY _____			
																				DESIGN BY _____			
																				CHECK BY _____			
																				PROJ/MGR _____			

BASIS FOR RIGHT OF WAY COST, OPTION 2 SOUTH

SE 1/4 SEC 08, NE 1/4 SEC 07, T 25 N, R8E, WM



CHURCH OF CHRIST, TOTAL
ACQUISITION = 1919 SF
ACCESS EASEMENT = 0 SF

SHORLINE UNITARIAN UNIVERSALIST CHURCH, TOTAL
ACQUISITION = 6154 SF
ACCESS EASEMENT = 0 SF

PHILIPPI PRESBYTERIAN CHURCH, TOTAL
ACQUISITION = 6301 SF
ACCESS EASEMENT = 0 SF



TS&L

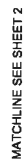
CITY OF SHORELINE
N 148 NON-MOTORIZED BRIDGE
BASIS FOR RIGHT OF WAY COST, OPTION 2 SOUTH

DRAWN BY _____
DESIGN BY _____
CHECK BY _____
PROJ. MGR _____



MARK	REVISION DESCRIPTION	BY	APP.	DATE

SE 1/4 SEC 08, NE 1/4 SEC 07, T 25 N, R6E, WM



CITY OF SHORELINE

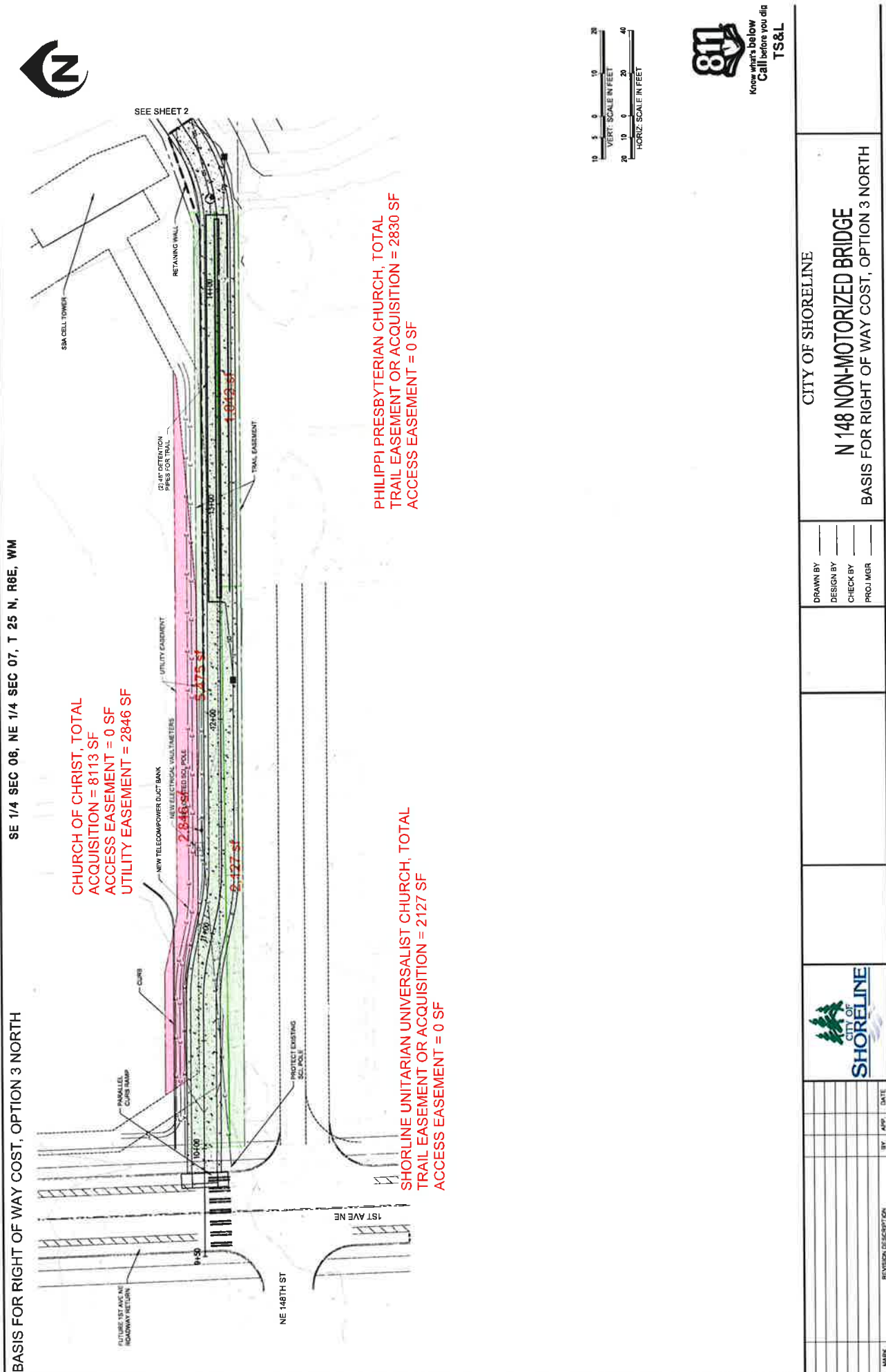
N 148 NON-MOTORIZED BRIDGE

BASIS FOR RIGHT OF WAY COST, OPTION 2 SOUTH

DRAWN BY _____
DESIGN BY _____
CHECK BY _____
PROJ MGR _____



MATERIAL	REVISION DESCRIPTION	BY	APP.	DATE



SE 1/4 SEC 08, NE 1/4 SEC 07, T 25 N, R8E, WM

BASIS FOR RIGHT OF WAY COST, OPTION 3 NORTH


CHURCH OF CHRIST, TOTAL
ACQUISITION = 8113 SF
ACCESS EASEMENT = 0 SF
UTILITY EASEMENT = 2846 SF

PHILIPPI PRESBYTERIAN CHURCH, TOTAL
TRAIL EASEMENT OR ACQUISITION = 2830 SF
ACCESS EASEMENT = 0 SF

SHORLINE UNITARIAN UNIVERSALIST CHURCH, TOTAL
TRAIL EASEMENT OR ACQUISITION = 2127 SF
ACCESS EASEMENT = 0 SF



Know what's below
Call before you dig
TS&L

																								CITY OF SHORELINE				N 148 NON-MOTORIZED BRIDGE				BASIS FOR RIGHT OF WAY COST, OPTION 3 NORTH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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TS&I

CITY OF SHORELINE

N 148 NON-MOTORIZED BRIDGE

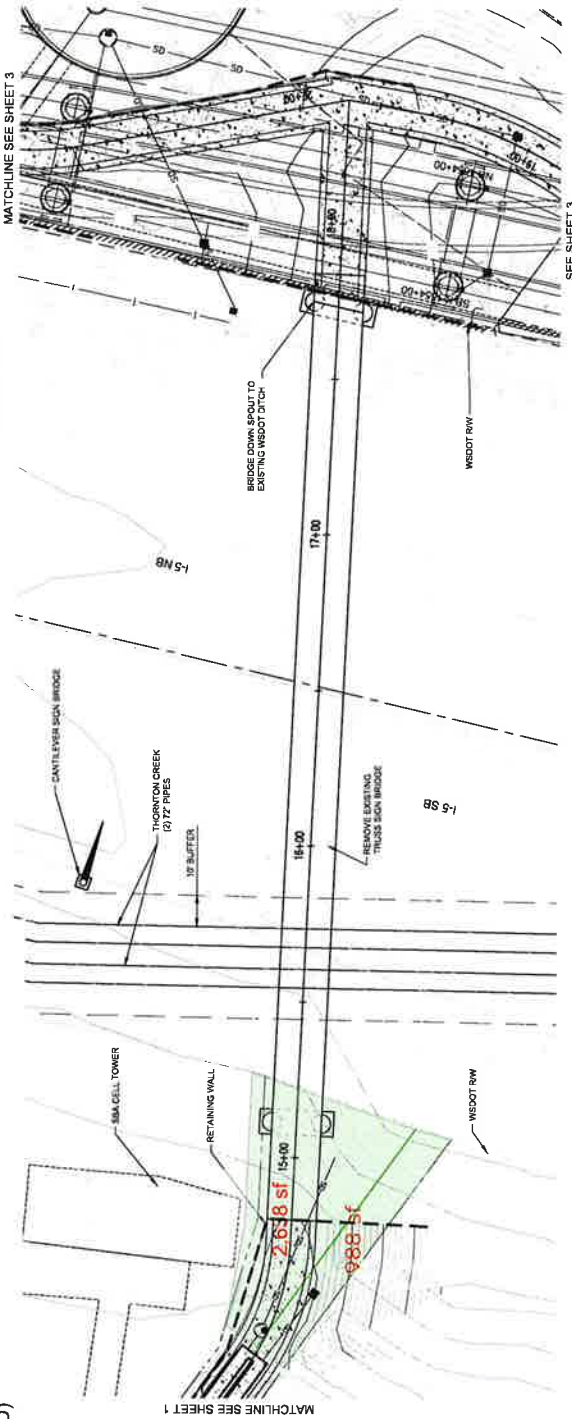
BASIS FOR RIGHT OF WAY COST, OPTION 3 NORTH

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CHECK BY
PROJ MGR

**BASIS FOR RIGHT OF WAY COST, OPTION 3 NORTH
(CONTINUED)**

SE 1/4 SEC 06, NE 1/4 SEC 07, T 25 N, R8E, WM



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Appendix 5

Project Background Information and Meeting Notes

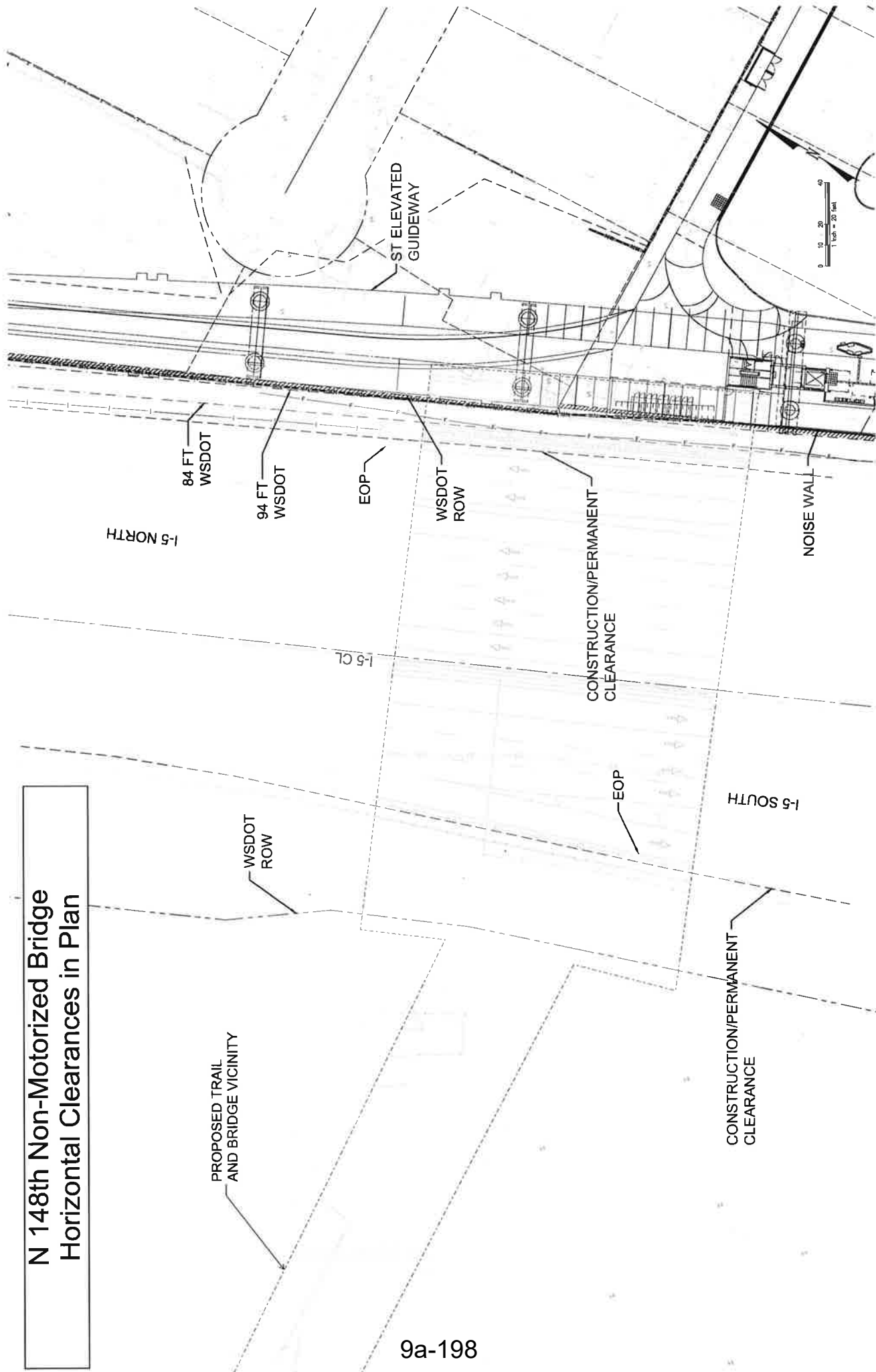
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Appendix 5

Project Background Information and Meeting Notes

Design Criteria and Constraints

N 148th Non-Motorized Bridge Horizontal Clearances in Plan



N 148th Non-Motorized Bridge



Diagram illustrating the proposed trail profile and construction details. The profile shows the existing ground and the proposed trail profile. Key features include:

- PROPOSED TRAIL PROFILE**: The dashed line representing the proposed trail.
- EXISTING GROUND**: The solid line representing the current ground level.
- EXISTING BARRIER**: The barrier structure on the left side.
- PROPOSED BARRIER**: The barrier structure on the right side.
- PERMANENT CONSTRUCTION CLEARANCE**: The area cleared for permanent construction.
- CONSTRUCTION CLEARANCE**: The area cleared for construction.
- PERMANENT CONSTRUCTION CLEARANCE**: The area cleared for permanent construction.
- NOISE WALL**: The wall structure on the right side.
- SOUND TRANSIT PROPOSED GROUND**: The area cleared for sound transit.
- 10' CLEARANCE**: The clearance area on the right side.
- 1.5 SOUTH-BOUND** and **1.5 NORTH-BOUND**: The lanes for traffic.
- WSDOT ROW** and **WSDOT 84 FT ROW**: The right-of-way boundaries.
- ST ELEVATED GUIDEWAY**: The elevated guideway structure.

Scale: 0, 10, 20, 30 feet.

Appendix 5

Project Background Information and Meeting Notes

Design Charrette Notes



MEETING NOTES

Attendees:	Agency/Company:	Date:	11/19/19
Lea Bonebrake	City of Shoreline	KPFF Job	1800398
Nytasha Walters	City of Shoreline	No.:	
Tricia Juhnke	City of Shoreline	Shoreline	9263
Nora Daley-Peng	City of Shoreline	Job No:	
Nathan Daum	City of Shoreline	Task No.:	9.0
Randy Witt	City of Shoreline	Project:	N148th NMB
Aaron Olson	KPFF	Subject:	Project Workshop
Rachel Liberty	KPFF		#3
Keith Ireland	KPFF	Mtg. Place	Shoreline City Hall
Liz Gibson	KPG		
Coreen Schmidt	KPG		
Howard Fitzpatrick	LMN		

The purpose of the meeting was to share and gather input on the design alternatives for the N 148th Non-Motorized Bridge project. In general, the project was divided into three segments with multiple design options for each. Below is a summary of items discussed:

1st Avenue Kiss & Ride Alternatives:

- Preliminary transportation analysis results expect 2-4 kiss & ride users per hour during peak times.
- Option 1: Pullout drop-offs each side of street, trail connection between churches
 - Southbound pullout may encourage people to jay-walk across to the trail. Consider having pullouts only in the northbound direction to avoid potential conflicts
 - Trail location provides most direct connection to bridge
- Option 2: Utilize Unitarian lot spaces for drop-off spots, trail connection between churches
 - Could be used as an interim condition until redevelopment in the area improves 1st ave to the EDM standard
 - Would require an agreement from Unitarian Church to use those spaces. They currently have an agreement with ST to provide temporary park and ride in this lot during Lynnwood Link construction
 - Trail location provides most direct connection to bridge
- Option 3A: Drop-off with turnaround, trail connection between churches
 - Largest footprint of all options. Would likely require additional ROW from Iglesia Church.
 - Clear signage and/or gate required to prevent entry into Iglesia Church parking lot
 - Trail location provides most direction connection to bridge
- Option 3B: Drop-off with turnaround, trail connection along north side of Iglesia Church

- Largest footprint of all options. Would likely require additional ROW from Iglesia Church.
- Trail connection is least direct of all options. Indirect route may encourage cut-through traffic on Unitarian, Phillipi and/or Iglesia church properties.
- Option 4: Redevelopment of Phillipi Church Property, trail connection between churches
 - Initial input from Phillipi Church is that they may be interested in redeveloping their property to take advantage of recent upzone
 - Kiss & Ride facility/turnaround would be pushed all the way to the bridge landing.
 - Trail location would provide most direct connection to bridge
 - Extension of 148th street grid to bring this closer to bridge landing. This could be extension of public ROW or a private road built by developer.
- Design team should consider a “no-build/minimal build” option for kiss & ride facility. Providing kiss & ride facility could be considered cross-purpose to the non-motorized bridge
- Design team will consider trail connection that connects south to 147th behind Phillipi church.
- The following options will be advanced further for evaluation:
 - Option 1: K&R pullouts with full street build out from N 147th to N 149th. 16ft trail with northern edge along property line between churches.
 - Option 2: Minimal build option. Add sidewalk from bridge landing to 1st Ave, bikes use drive aisle of church lots. K&R facility uses existing parking stalls from Unitarian Church. Minimal improvements to 1st Ave
 - Option 3: Trail connection to 149th with either the K&R pullouts or the K&R turnaround.
 - Option 4: Extension of 148th through church properties including trail. Requires redevelopment of both Unitarian and Phillipi properties.
 - Option 5: Bring trail south along eastern edge of Phillipi property and connect to 147th. Minimal sidewalk improvement to 147th with bikes using sharrow on 147th.

Trail & Roadway Sections:

- Roadway Sections:
 - The team presented several roadway sections options that varied from the EDM prescribed section.
 - While this project may not include any significant improvements to 1st Ave, it should not preclude the eventual build-out. Project limits still being discussed within the City.
 - Cycle track section presents issues with driveways, although there are not many driveways present on 1st ave. Cycle track is also not compatible with Kiss & Ride pullouts.
- Trail Sections:
 - Utilities that feed the cell phone tower are likely along property line between churches. Title reports indicate that Iglesia church has granted easement to cell

tower owner for operation and maintenance of tower. Utility easements likely present for electrical and communications that feed that tower. Easement mapping is underway.

- Split trail shown to preserve trees @ the west end of the property line between Unitarian Church and Iglesia Church. MUR70 development has no requirement to preserve trees.
- Split trail may also limit parking space impact on Unitarian church property.
- Split trail would need to rejoin as it approaches the bridge as there is a grade difference between the Phillipi Church property and Iglesia church property
- Combined trail within Unitarian & Phillipi properties would eliminate entire row of parking along north edge of lots
- Interim condition could include sidewalk along trees with bicyclists using the drive aisle.

East Landing Options:

- Option 1: This landing brings the ramp north away from the station but provides approximately 9ft of vertical clearance to the guideway soffit for trail users. AASHTO requires 10ft minimum clearance. This would require the City to issue a variance.
- Option 2: Landing is further south to improve vertical clearance for trail users. Landing would be immediately adjacent to the north end of the station.
- Option 3: Landing is further south to improve vertical clearance for trail users and ramp passes through the columns. Landing would be immediately adjacent to the north end of the station.
- Option 4A: Landing is further north, with ramp occurring in the future shoulder of I-5 (between 84ft and 94ft WSDOT compatibility lines). Ramp down occurs between columns of guideway
- Option 4B: Landing is further north, with ramp occurring in the future shoulder of I-5 (between 84ft and 94ft WSDOT compatibility lines). Ramp down occurs east of guideway with Trail along the Rail passing underneath the ramp.
- Option 2 & 3 are eliminated from further evaluation due to their proximity to the station. This would require significant rework of ST's facility.
- Option 4B is eliminated due to complexity and CPTED issues with passing Trail along Rail beneath the ramp.
- The City would like to see further integration of Woonerf plans to see how these options can be integrated into that design.
- Design team to investigate whether raising grades in the Woonerf can help reduce ramp lengths.
- Design team to investigate impact of having significant portions of structure in WSDOT ROW (e.g. clearance to future roadway, location of sound wall, etc).

Bridge Options:

- The design team shared four bridge types: Cable stayed, compression arch, network tied arch and a truss.
- Cable stay tower immediately adjacent to the cell tower could be an issue with regard to causing interference. Design team is reaching out to cell tower owner to understand their constraints.
- Selection of bridge type will be highly dependent on cost and constructability
- Design team to investigate relocation of WSDOT sign bridge further north.
- Design team to investigate scale of throw barriers on bridge

Public Input & Evaluation Criteria:

- The City and design team will begin assembling a list of criteria for evaluating these options. These will be shared at the next design charrette.
- The City and design team will need to evaluate which components project will be opened up for public input. Where do we inquire and where do we inform?

DRAFT



MEETING NOTES

Attendees:	Agency/Company:	Date:	12/18/19
Lea Bonebrake	City of Shoreline	KPFF Job	1800398
Nytasha Walters	City of Shoreline	No.:	
Tricia Juhnke	City of Shoreline	Shoreline	9263
Nora Daley-Peng	City of Shoreline	Job No:	
Nathan Daum	City of Shoreline	Task No.:	9.0
Aaron Olson	KPFF	Project:	N148th NMB
Rachel Liberty	KPFF	Subject:	Project Workshop
Keith Ireland	KPFF		#4
Liz Gibson	KPG	Mtg. Place	Shoreline City Hall
Coreen Schmidt	KPG		

The purpose of the meeting was to share and gather input on the design alternatives for the N 148th Non-Motorized Bridge project. In general, the project was divided into three segments with multiple design options for each. Below is a summary of items discussed:

General Project Updates:

- Initial outreach to Unitarian Church has been made. They are generally receptive/supportive of the project and are interested in increasing visibility of church to trail/bridge users. Parking is their main concern. They would like to see any parking loss mitigated 1:1.
- Initial outreach to Iglesia Church has also been made. Their primary concern is safety/security of their property and keeping people off of their property. They would like to have fencing along trail at their property boundary.
- Sound Transit is currently leasing temporary park-and-ride spaces in the Phillippi and Unitarian parking lots. These spaces need to be maintained until new parking garage is in service at Shoreline South/145th station.
- WSDOT kickoff meeting has occurred. Their primary concern is potential impacts to piped section of Thornton Creek in project vicinity. Their suggestion is to avoid impacts to this at all costs. Show stream buffers on plans/graphics. Buffers/setbacks to be confirmed upon receipt of Thornton Creek as-builts.
- The ROW basemap has been updated to show easements on all three church properties. As expected, there is a maintenance and utility easement for cell phone tower at SE corner of Phillippi property. Impacts to this easement should be avoided as relocation of this facility will be costly.

West East Side Kiss & Ride and Trail Alternatives:

- Add lighting criteria for all options
- Need to establish limits of project improvement along 1st Avenue for TS&L evaluation

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- There are mitigation funds available for sidewalk improvements along 1st Ave. Preference is to use those funds for sidewalks between 155th to Twin Ponds as this area will not redevelop.
- Keep bike connections to 148th generic at this point (i.e. do not show bike lane arrows). City to determine bike connections at a later date.

Option 1: Minimal Build-Out:

- Avoid calling this interim condition but instead call minimum viable option or similar.
- Minimal parking impacts for this option although parking impacted by construction would need to be mitigated (1:1)
- Unitarian church not particularly thrilled with this option although they would be interested in income from long-term kiss & ride lease from City

Option 2: Full Trail Build Out with and without Traffic Circle:

- Traffic circle is not desirable from City perspective as it encroaches on bike lane and adds further complication to the intersection. Traffic circle will be dropped from consideration.
- Show an alternative bike alignment at Kiss & Ride pullouts that has cars crossover bike lanes as a means of reducing ROW width/acquisition.
- Unitarian sign is currently constructed in City ROW.
- Investigate methods for mitigating parking loss due to trail build out.
 - Where can additional spots be gained?
 - Does this option require redevelopment of the Phillippi and Iglesia Church property?

Option 3: NE 148th Street Extension

- Roadway could be a public or private roadway. City could purchase ROW now or require permanent easement from developer.
- Roadway creates obvious connection to bridge
- Could this option work without redevelopment?
 - Team to investigate methods for mitigating parking loss?
 - Where would access to churches occur? Off of new 148th extension? Or move driveway south off of 1st?

Option 4: Connection to 147th

- Turnaround needs to be a cul-de-sac per City code. Team to update figure and determine additional impacts – acquisition/demolition of 4 properties?
- Potential option to have trail connect mid-block of 147th and run north between Unitarian and Phillippi properties.
 - Limits Unitarian parking impacts

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- Requires additional property acquisition/demolition
- Cul-de-sac/kiss & ride still would be required at end of street.
- Do not advance for now. Keep as potential option for future consideration

West Side Landings:

- Clearance diagram provided to show constraints of landing location with regard to vertical clearance for ped/bike users.
- Add Sound Transit station plaza to all graphics
- Tweak woonerf grades and refine landings to get better picture of slopes
- Advance all options (A, B & C) to TS&L phase

Option A:

- Where possible, reduce landscaping areas to open up plaza further. This will provide more flexibility for space for future pop-up events.
- Add bleachers north of stairs too

Option B:

- Greatest vertical clearance under guideway
- More gentle slopes of all options
- Greatest impact to WSDOT facility (more structure in forward compatibility area).
- Longest bridge structure.

Option C:

- More limited plaza space but becomes a quieter connection as trail-along-rail meets up with ped bridge landing.



MEETING NOTES

Attendees:	Agency/Company:	Date:	01/16/20
Lea Bonebrake	City of Shoreline	KPFF Job	1800398
Nytasha Walters	City of Shoreline	No.:	
Tricia Juhnke	City of Shoreline	Shoreline	9263
Nora Daley-Peng	City of Shoreline	Job No:	
Aaron Olson	KPFF	Task No.:	9.0
Rachel Liberty	KPFF	Project:	N148th NMB
Keith Ireland	KPFF	Subject:	Project Workshop #5
Liz Gibson	KPG		
Coreen Schmidt	KPG	Mtg. Place	Shoreline City Hall
Howard Fitzpatrick	LMN		

The purpose of the meeting was to share and gather input on the design alternatives for the N 148th Non-Motorized Bridge project. In general, the project was divided into three segments with multiple design options for each. Below is a summary of items discussed:

General Project Updates:

- Community briefings with the Phillippi Church and the Parkwood Neighborhood Association (PNA) have been held in recent weeks. Both briefings were met with generally positive reaction to the project. The Phillippi Church is still interested in redevelopment and their largest concern is loss of parking. The PNA is primarily concerned with increased parking congestion in the neighborhood.
- Geotechnical fieldwork was completed last week. Survey was supposed to have been completed during that same timeframe but was delayed due to weather.

West Side Kiss & Ride and Trail Alternatives:

- The group reviewed recent revisions/refinements to the alternatives and selected those that should be advanced to the TS&L phase.
- All improvements to 1st avenue should be treated as examples to of how this project may tie into future improvements. These improvements should not be included in the TS&L.
- Below is a summary of the discussion about the alternatives

Option 1: Minimal Build-Out:

- No significant refinements made since last meeting. Option to be advanced to TS&L

Option 2: Full Trail Build Out with and without Traffic Circle:

- Newest refinement includes addition of parking lot expansion @ east side of Phillippi parcel to offset parking lost to full trail build-out
- Split this alternative into two, sub-options.
 - Option 2A will stay within the Unitarian and Phillippi properties and will require parking mitigation by adding retained fill to support @ the east end of the Phillippi parcel.
 - Option 2B will push the trail further north onto the Iglesia parcel in order to avoid parking impacts on the Unitarian & Phillippi church parcels. This will require relocation of underground utilities and renegotiation of existing private utility easement.
- Both sub-options will be advanced to TS&L
- Southbound kiss ride to be shifted to be parallel to northbound kiss and ride. This will be installed as part of developers frontage improvements.

Option 3: NE 148th Street Extension

- The street extension is outside the scope and scale of the project. It should be discussed in the TS&L as "option considered but not advanced". This option will not be advanced to the TS&L phase.

Option 4: Connection to 147th

- Newest refinement includes addition of cul-de-sac @ the end of 147th.
- This option has significant challenges including building trail adjacent to Thornton Creek, additional fill required to support trail prism and significant ROW acquisition.
- This option will not be advanced to the TS&L but will be addressed in the "option considered but not advanced" section of the report.

Bridge Alternatives:

- Updated alternatives including pros & cons for four bridge alternatives. Below is a summary of the discussion about the bridge alternatives.
- Bridge canopy/roof options were also developed for all bridge alternatives

Option 1: Cable Stayed Bridge:

- The tower for the cable stay bridge competes visually with the cell phone tower as they are in very close proximity.
- Cable-stay construction will likely require significant amount of work to occur over live traffic on I-5 below. This adds an undue amount of risk to the Contractor and traveling public.
- Cable stay is likely the most costly option
- Cable stay will not be advanced to the TS&L

Option 2: Compression Arch:

- Bridge canopy/roof to be added as an alternate option for this bridge. Additional framing members will be required to support a roof/canopy.
- Compression arch bridge to be advanced to TS&L

Option 3: Tied Arch:

- Bridge canopy/roof to be added as an alternate option for this bridge. Additional framing members will be required to support a roof/canopy.
- Tied arch bridge to be advanced to TS&L

Option 4: Truss:

- Bridge canopy/roof to be added as an alternate option for this bridge. This element can be integrated into the bridge design with little additional structure.
 - Truss arch bridge to be advanced to TS&L
- Bridge awning/roof will be included as an option for all bridge alternatives considered
 - Maintenance/inspection requirements for all alternatives should be discussed in the TS&L evaluation.
 - Throw barrier should be added to all bridge modeling
 - City to follow-up on art requirements for the project. Potential to incorporate art into throw barrier.

East Side Landings:

- Refined landing figures were presented. All will be advanced for evaluation in the TS&L report.
- Grades refined a bit more and more accurate picture of slopes and clearances were presented.
- An interim build out condition for the east side landing needs to be considered for all options. Cost estimate should separate out elements of the project that are not necessary to provide a functional project (i.e. minimum viable design). Add-ons like plaza, stair connections, landscaping, etc. can be added later as needed. City provided example of past project where a "menu" of options was created.
- 30% design will likely be to an interim condition as trail-along-the-rail and woonerf have not been designed or funded.

Option A:

- This alternative has the smallest vertical clearance from the pathway to the guideway structure @ 8'-0". This is the recommended minimum vertical clearance provided in the AASHTO Ped/Bike facilities guidelines
- This alternative requires raising station plaza grades by ~1ft.

Option B:

- Greatest vertical clearance under guideway @ ~9.3ft
- Most gentle slopes of all options
- This alternative requires raising station plaza grades by ~1.5ft.

Option C:

- Vertical clearance to guideway is ~8.8ft
- Separates plaza from trail users by separating the two.
- Requires raising station plaza by ~1ft.

Open House Coordination:

- A rough draft of the open house outline was shared which includes the following presentation categories:
 - Background Info/Setup
 - Design Constraints/Criteria
 - Alternatives
 - Feedback Opportunities/Next Steps
- It was agreed that a brief presentation should lead the open house to provide people a general overview of the open house layout
 - The facility will need to be able to accommodate a presentation including a screen, seating, etc
- The schedule was reviewed and will be updated to include lead time for translation services. Clear, direct language is required for all materials in order to assure ease of direct translation.
- Graphics will be required for the open house boards and the online open house. Design team will work to support this effort.
- A physical model of the project site will be constructed (approx. 4ft x 4ft). Will include the light rail station and bridge options that can be switched out. Generic landings will be shown @ the east and west side
- During open house development, it needs to be understood to the public where we are asking for input and where we are informing. Balancing qualitative vs. quantitative input is a challenge.
- Allow the public to engage but not "vote" by rating importance of evaluation criteria.
- Ask for quantifiable feedback where possible. Open-ended questions can be difficult to answer/address.

Evaluation Criteria:

- The team made some minor edits to the criteria list already developed.
- Criteria should be selected that can differentiate between the options. Some criteria are met by all options and so no comparison can be made.

DRAFT

Appendix 5

Project Background Information and Meeting Notes

Public Outreach and Inter-agency Coordination Notes



Briefing Notes

North 148th Street Non-Motorized Bridge Design

Contract #9263

Consultant: KPFF, Inc.

Iglesia Ni Cristo

December 4, 2019, 3:00 p.m.

1. Briefing Purpose

- a. Purpose: Update Iglesia Ni Cristo leadership about the project, likely Right-of-Entry (ROE) activities, and secure feedback from church leadership about early design concepts.

2. Attendees

Lea Bonebrake	City of Shoreline
Aaron Olson	KPFF
Colleen Toomey	Stepherson & Associates
Luvimin Evangelio	Iglesia Ni Cristo Shoreline
Barrington Thompson	Iglesia Ni Cristo (District)
Rex ???	Iglesia Ni Cristo (District)

3. Project Team Presentation: Lea and Aaron provided a brief overview of the project scope and design

- a. The bridge will need to provide 18 feet in clearance across I-5 and will run under the new Sound Transit light rail tracks at the South Shoreline/N 145th Station
- b. The project team shared five early design concepts reiterated that all options must be considered during this early design phase.
- c. The new bridge will include a walking trail and lighting. Sound Transit security will also staff the station.
- d. Design will also likely include sidewalk improvements on 1st Avenue NE.
- e. The church could also receive compensation for renting field space to contractor for staging.
- f. Right-of-Entry Needs - ROE needs across all three church properties include surveying, permitting and geotechnical activities. Geotechnical activities can be conducted on the other church properties. Surveying and permitting activities will be minimally invasive to Iglesia and will not require large tools.



Briefing Notes

4. Iglesia Ni Cristo Community Comment Summary

- a. ROE
 - i. The Shoreline congregation is part of the larger national church. Church leadership includes a local district, a Western U.S. division and national office. The church has its own team of architects and engineering.
 - ii. All agreements for the ROE and other activities will go through Western U.S. office.
- b. Church schedule and language needs
 - i. The Shoreline congregation has a 10 am service on Sundays and many activities throughout the week.
 - ii. Public outreach materials in English will work well for congregation.
- c. Project benefits
 - i. A new pedestrian and bike bridge could bring new community members to the church and make it easier for current members to travel to church.
- d. Project concerns
 - i. Safety: Iglesia Ni Cristo wants to ensure a safe environment. In October 2018, a man threw a Molotov cocktail into the Rainier Valley location during a worship service. Fortunately, there were no injuries.
 - ii. ROW: Leaders want to ensure there is clear delineation between public right-of-way and private property and alignment does not encourage pedestrians, bicyclists or vehicles to cut through church property.
 - iii. Congestion: With drop-offs in potential kiss-and-ride or roundabouts, church leaders want to ensure that there is no significant congestion or illegal parking for the congregation to contend with. Project team noted parking facilities will be at the station.
- e. Review of Early Concepts
 - i. Option 1 and 2 were the most attractive to the church leaders. The trail pathway between the three churches appeared to offer the best security and would discourage people from cutting through private property to access the bridge. The kiss-and-ride spaces outside of the Iglesia property were most attractive. (This could also include Option 5)
 - ii. Options with the northern trail pathway were less attractive for security reason.



Briefing Notes

5. Next Steps/Action Items

Task	Responsible	DUE
Send revised ROE agreement excluding geotechnically activities to Brother Luvimin. Include PDF of early concepts and project folio.	Lea	DONE (12/6)



Briefing Notes

North 148th Street Non-Motorized Bridge Design

Contract #9263

Consultant: KPFF, Inc.

Shoreline Unitarian

Universalist Church

December 12, 2019, 4:30 p.m.

1. Briefing Purpose

- a. Purpose: Update Shoreline Unitarian Universalist Church leadership about the project, likely Right-of-Entry (ROE) activities, and secure feedback from church leadership about early design concepts.

2. Attendees

Lea Bonebrake	City of Shoreline
Nathan Daum	City of Shoreline
Aaron Olson	KPFF
Colleen Toomey	Stepherson & Associates
Catherine Crain	Shoreline Unitarian Universalist Church Board, President
Ryan Dunne	Shoreline Unitarian Universalist Church Board, VP Finance

3. Project Team Presentation: Lea and Aaron provided a brief overview and answered questions about the project scope and design

- a. The bridge will need to provide 18 feet in clearance across I-5 and will run under the new Sound Transit light rail tracks at the South Shoreline/N 145th Station.
- b. The project team shared five early design concepts that are focused on the approach/how the path gets users from the bridge landing to 1st Ave NE or NE 147th St.
- c. Other components of the project include the bridge and how the bridge connects to the light rail station on the east side of I-5.
- d. Design will also likely include sidewalk improvements on 1st Avenue NE.
- e. The church could receive compensation for any easements or land purchases.
- f. The new bridge will include a walking trail and lighting. Sound Transit security will also staff the station.
- g. Survey work will be done once the City receives ROE agreements from all three church properties. This work will likely occur in the next month or so.
- h. The Type, Size and Location Report will evaluate four alternatives for the approach, two alternatives for the bridge design and two alternatives for the landing/connection to the light rail station.
- i. Lea explained that the selected option will be recommended by the project team and approved by the City Council.



Briefing Notes

- j. The goal is to complete final design by the end of 2022, before Sound Transit begins light rail testing on the east side of I-5. Light rail will go through 1 year of testing (2023) with plans to start service in 2024.

4. Shoreline Unitarian Universalist Community Comment Summary

a. Church Activities and Parking

- i. The congregation is busiest on Sundays and during large events like weddings and funerals, however they do also have active weekday programming.
- ii. Church currently leases the northernmost row of parking in their lot to the Evergreen School and Sound Transit during the week.

b. Property impacts

- i. In some concepts, the Church may need to sell or lease property. They would like to negotiate fair compensation for this loss of property.

c. Review of Early Concepts

- i. Of the existing options, option 1 and 2 were the most attractive to the church board members. A pathway between the three churches would give users exposure to the Church's message. Option 1 and 2 would also discourage people from cutting through their property to access the bridge.
- ii. Options 3A and 3B were less attractive because:
 - 1. Might lead to unauthorized parking in their lot.
 - 2. People might cut through church parking lot to get to the bridge creating an added liability. They'd prefer to have the pathway near/adjacent to the church to make use more formalized.
- iii. Option 5 – Lea explained that the project team is also looking at the option of placing the approach to the east of the Phillipi Church to connect to NE 147th St.
 - 1. Church board members acknowledged that this option would have less of an impact on their parking.
 - 2. Catherine and Ryan asked the project team to look at the option of placing a pathway that runs east from 1st Ave NE, south of their property, turns north between the Unitarian and Phillipi churches and then east again between the Iglesia and Unitarian Church properties.

d. Outreach

- i. Catherine and Ryan said they would be interested in participating in a briefing with all three churches.
- ii. They also said they can help share information about the open house and online open house with their congregation.
- iii. Aaron offered to give a similar briefing to a larger group at the Church. Ryan and Catherine said they would like to do that.



Briefing Notes

5. Next Steps/Action Items

Task	Responsible	DUE
Send schedule, data/reports (traffic and use projections, walkshed information, etc..) and an electronic version of the concepts to Ryan.	Lea/Kristin	DONE
Set up project briefing/presentation with a larger group of people from the Church.	Kristin	January



Briefing Notes

North 148th Street Non-Motorized Bridge Design

Contract #9263

Consultant: KPFF, Inc.

Phillippi Presbyterian Church Briefing

January 3, 2020, 3:00 p.m.

1. Briefing Purpose

Purpose: Update Phillippi Presbyterian Church leadership about the project, provide guidance on development opportunities and secure feedback from church leadership about early design concepts.

2. Attendees

Lea Bonebrake	City of Shoreline
Nathan Daum	City of Shoreline
Caleb Miller	City of Shoreline
Aaron Olson	KPFF
Kristin Anderson	Stepherson & Associates
Han Kim	Phillippi Presbyterian Church Briefing
Cheryl Lee	Phillippi Presbyterian Church Briefing

3. Project Team Presentation: Lea and Aaron provided a brief overview and answered questions about the project scope, design and schedule.

- a. The project team shared four early design concepts that are focused on the approach/how the path gets users from the bridge landing to 1st Ave NE or NE 147th St. Aaron described that these are high-level concepts with the intent of gathering input from key stakeholders early in the process in an effort to create a win-win for all those involved. The options presented included:
 - i. Option 1 – Minimal Build-Out
 - ii. Option 2 – Full Trail Build-Out
 - iii. Option 3 - NE 147th Trail Connection
 - iv. Option 4 - Phillippi Site Redevelopment
- b. Other components of the project include the bridge and how the bridge connects to the light rail station on the east side of I-5.
- c. The new bridge will include a walking trail and lighting. Sound Transit security will also staff the station.
- d. A draft of the Type, Size and Location Report be presented to the City by the end of February. At that time, the project team will also start a broad public outreach effort concurrent to focused outreach with key stakeholders. The preferred alternative will be selected approximately two months after Open House #1 (planned for early April).



Briefing Notes

- e. The goal is to complete final design by the end of 2022, before Sound Transit begins light rail testing on the east side of I-5. Light rail will go through one year of testing (2023) with plans to start service in 2024.
- f. Based on the feasibility study, the total estimated project cost is \$17 million.

4. Phillippi Presbyterian Church Community Comment Summary

a. Church Activities, Development Plans, and Parking

- i. Church would like to maintain as much parking as possible on its property.
- ii. Church is hoping to use the sloped area on the east side of its property, potentially for a multi-story parking garage.
- iii. Cheryl asked if parking will be added as part of the project. Lea responded that parking will not be added as part of this project. The City is intentionally not adding parking but focusing on users who walk and bike. Aaron added Sound Transit will be added a 500-car parking garage on the east side of I-5 near the light rail station.

b. Review of Early Concepts

i. Option 1

- 1. Cheryl does not think there is enough room for an 8-foot wide path as shown in the drawing (in the strip between the Iglesia property and the parking lots to the south). Aaron shared that the options are schematic and based on aerial surveys. Once survey work is done, the options will be further developed.

ii. Option 2

- 1. Han asked who will maintain the planted buffers shown in this option. Lea said that it's most likely that the City will maintain the plantings, as the City would need to acquire an easement to use that property. Lea will confirm.

iii. Option 3

- 1. Has asked if the path shown will be a raised trail. Aaron responded that it's likely that the trail will be at a raised elevation. This would likely be done with a retaining wall and fill behind it as that is a least-costly option.
- 2. Han asked what type of development is possible on the sloped area. Caleb responded that steep slopes are considered critical areas. A final decision about what's allowed on the slope will require review of a specific proposal by a professional. Aaron added that Thornton Creek comes through the sloped area in an underground pipe. That pipe/culvert has been identified by WSDOT as a location for a future fish passage project. There are many unknowns about what WSDOT might do and will allow in this area.



Briefing Notes

3. Cheryl feels this option is too indirect and would require too much walking to get to the bridge from 1st Ave NE. She doesn't think people will use this route.
- iv. Option 4
 1. This option is contingent on Phillippi site redevelopment.
 2. Cheryl said that while this option may not be exactly what the Church wants, she is glad the City is thinking forward and considering growth options.
- c. General
 - i. The majority of the congregation speaks Korean. Having outreach materials in Korean would be very helpful for communications with the congregation.
 - ii. Cheryl stated repeatedly that the City needs a subarea plan for this area. Without a plan, it's difficult to visualize and plan for what could go in at the site.
 - iii. Cheryl prefers options that separates pedestrians and bicyclists.
 - iv. The Church would like more information on development agreement criteria.
 - v. Cheryl is concerned about that more foot traffic in the area may lead to additional crime around the Church in the evenings and the less active times of day

5. Next Steps/Action Items

Task	Responsible	DUE
Send Han a PDF version of the trail options to share with the congregation	Lea	DONE
Send Han and Cheryl information about Gethsemane and other Church redevelopments	Lea	DONE
Connect with Han and Cheryl with details of a development agreement	Nate	1/10
Confirm who will maintain planted buffer shown in Option 2	Lea	1/17



Briefing Notes

Provide briefing to the Church congregation	Lea	TBD
Connect with Han and Cheryl as options are further developed and prior to broader public outreach.	Lea	March
Share survey information with Cheryl and Han	Aaron/Lea	When available (when is that?)



Briefing Notes

North 148th Street Non-Motorized Bridge Design

Contract #9263

Consultant: KPFF, Inc.

Parkwood Neighborhood Association Briefing

January 8, 2020, 7:00 p.m.

1. Briefing Purpose

Update the Parkwood Neighborhood Association about the project background, schedule and next steps, and gather feedback on early design concepts.

2. Presenters

Lea Bonebrake	City of Shoreline
Tricia Juhnke	City of Shoreline
Aaron Olson	KPFF
Kristin Anderson	Stepherson & Associates

3. Project Team Presentation: Lea and Aaron provided a brief overview and answered questions about the project scope, design and schedule.

- a. The project team started the presentation by providing background information on the 2017 feasibility study which lead to the identification of the selected bridge alignment at N 148th St.
- b. The project team shared early design concepts for the three parts of the project: the west trail connection 1st Ave NE, the bridge, and the east bridge landing. The team shared that these are high-level concepts with the intent of gathering input from key stakeholders early in the process to create a win-win for all those involved.
- c. The options presented for the west trail connection to 1st Ave NE included:
 - i. Option 1 – Minimal Build-Out
 - ii. Option 2 – Full Trail Build-Out
 - iii. Option 4 – NE 148th St Extension
 - iv. Note: A fourth option, with the trail traveling south adjacent to I-5 and connecting to NE 147th was discussed, but not presented with an exhibit.
- d. The options presented for the bridge included:
 - i. Cable stayed bridge
 - ii. Compression arch bridge
 - iii. Truss bridge
 - iv. Tied arch bridge
- e. The options included for the east bridge landing included:
 - i. Option A
 - ii. Option B
 - iii. Option C
- f. The new bridge will include a walking trail and lighting. Sound Transit security will also staff the station.



Briefing Notes

- g. A draft Type, Size and Location Memo will be presented to the City by the end of February. At that time, the project team will also start a broad public outreach effort concurrent to focused outreach with key stakeholders. The preferred alternative will be selected approximately two months after Open House #1 (planned for early April).
- h. The goal is to complete final design by the end of 2022, before Sound Transit begins light rail testing on the east side of I-5. Light rail will go through one year of testing (2023) with plans to start service in 2024.

4. Parkwood Neighborhood Association Community Comment Summary

- a. The group had questions about how the project is being funded and how I-976 impacts the funding of this and other City projects.
 - i. Project funding: Lea shared that based on the feasibility study, the total estimated project cost is \$17 million. This total includes additional contingency and escalation funds. Approximately \$10 million has been secured, including more than 5 million in combined federal funding and Sound Transit funding.
 - ii. I-976 impacts: Tricia said that funding obtained through license tabs are directed to the City's street and sidewalk maintenance and preservation programs. Passage of I-976 represents an annual loss of \$1.7 million towards that fund. Passage of I-976 does not directly impact funding for this project.
- b. The group asked what the critical need for the project was and from where likely users would be coming.
 - i. Aaron shared that the purpose of the bridge is to connect people from the west side of I-5 to the transit center on the east side of I-5.
 - ii. Tricia added that the rezoning in the area will continue to increase the number of people living in the neighborhood. By placing the bridge near N 148th St creates a larger walkshed (the area/distance people are willing to walk). Someone closer to N 150th is more likely to use an I-5 crossing at N 148th than at N 145th.
- c. The group expressed concerns about how rezoning and this project will impact parking in the neighborhood.
 - i. Parking impacts: People using the bridge and transit center might try to use the public parking lots and street parking in the neighborhood. Added density will further strain parking availability in the neighborhood.
 - ii. Parking mitigation: The group asked if there is a plan to mitigate parking impacts resulting from this project?



Briefing Notes

1. Lea responded that as part of this project, the City is conducting a parking study to assess how the new bridge will impact parking in the neighborhood.
2. Tricia responded that the City is also conducting a broader parking study and plan to address how parking might be managed in the future.
- iii. Use of Church lots for parking: The group asked if the Phillippi and Unitarian Church parking lots will continue to be used as commuter parking.
 1. Tricia answered that when Sound Transit removed the park and ride on the east side of I-5, they replaced that lost parking by leasing parking in the Phillippi Church parking lot. Once the parking garage is open as part of the new light rail station, the Phillippi lot won't be used for commuter parking.
- d. The group had questions about if and how the City would acquire property for the bridge and trail connection to 1st Ave NE.
 - i. Lea said that that the extent of property impacts is yet to be determined, and that discussions are currently being had with the immediately impacted property owners.
- e. Comments and questions about the west trail connection to 1st Ave NE options
 - i. The group did not express a unified preference for any one of the following options.
 1. Option 1 – Minimal Build-Out
 2. Option 2 – Full Trail Build-Out
 3. Option 3 - NE 147th Trail Connection
 4. Option 4 – NE 148th St Extension
- f. Comments and questions about the bridge options
 - i. Some members of the group shared an initial preference for the tied-arch bridge.
 - ii. The group asked if the bridge would have a cover.
 1. Aaron said that it might, but that level of detail has not been decided.
- g. Comments and questions about the east bridge landing
 1. The group did not share a preference for any of the east bridge landings.



Briefing Notes

5. Next Steps/Action Items

Task	Responsible	DUE
Specific request		
Share KC Metro Long-range planning information	Lea	1/17
Share Northgate Pedestrian and Bicycle Bridge information	Lea	1/17
Share webpage/handout describing how the different City projects fit together/connect	Lea	Once complete
Suggested information to share based on questions from group		
Information on I-976 impacts – Team could share the Currents Winter 2019 article on this issue. http://www.shorelinewa.gov/home/showdocument?id=41307	Lea	1/17



Briefing Notes

North 148th Street Non-Motorized Bridge Design

Contract #9263

Consultant: KPFF, Inc.

Ridgecrest Neighborhood Association Briefing

January 21, 2020

1. Briefing Purpose

Update the Ridgecrest Neighborhood Association about the project background, schedule and next steps, and gather feedback on early design concepts.

2. Presenters

Bob Earl	City of Shoreline
Nytasha Walters	City of Shoreline
Aaron Olson	KPFF
Colleen Toomey	Stepherson & Associates

3. Project Team Presentation: Bob and Aaron provided a brief overview and answered questions about the project scope, design and schedule.

- a. The project team started the presentation by providing background information on the 2017 feasibility study which lead to the identification of the selected bridge alignment at N 148th St.
- b. The project team shared early design concepts for the three parts of the project: the west trail connection 1st Ave NE, the bridge, and the east bridge landing. The team shared that these are high-level concepts with the intent of gathering input from key stakeholders early in the process to create a win-win for all those involved.
- c. The options presented for the west trail connection to 1st Ave NE included:
 - i. Option 1 – Minimal Build-Out
 - ii. Option 2 – Full Trail Build-Out
- d. The options presented for the bridge included:
 - i. Compression arch bridge
 - ii. Truss bridge
 - iii. Tied arch bridge
- e. The options included for the east bridge landing included:
 - i. Option A
 - ii. Option B
 - iii. Option C
- f. The new bridge will include a walking trail and lighting. Sound Transit security will also staff the station.
- g. A draft Type, Size and Location Memo will be presented to the City by the end of February. At that time, the project team will also start a broad public outreach effort concurrent to focused outreach with key stakeholders. The preferred alternative will be selected approximately two months after Open House #1 (planned for early



Briefing Notes

April).

- h. The goal is to complete final design by the end of 2022, before Sound Transit begins light rail testing on the east side of I-5. Light rail will go through one year of testing (2023) with plans to start service in 2024.

4. Ridgecrest Neighborhood Association Community Comment Summary

- a. **Parking:** Attendees asked about parking options on the west side.

- i. Bob noted that the city is studying parking options and does not want to overbuild on the west side of the bridge.

- b. **West Approach:**

- i. Option 1: Attendees emphasized the importance in minimizing tree removal. Attendees also asked how Thornton Creek will be impacted by this project. The city does not need to daylight creek currently.
 - ii. Option 2: Attendees provided mixed feedback about this option. Some were concerned it was too wide and other wanted to make sure there would be specific bike lanes along the route. A suggestion was made to update renderings.
 - 1. Colleen reiterated that stakeholders at churches also providing feedback and it is important to them to have a distinct and safe right-of-way that does not encourage people to cut through or wander around church properties.

- c. **East Bridge Landing:** Attendees asked several questions and provided strong feedback about prospective plaza space and other amenities around the Sound Transit station.

- i. Several attendees expressed that the location adjacent to both light rail tracks and a freeway would be too loud to hold any meaningful public programming and that it was not an attractive space for people to sit and have coffee or lunch. Attendees also said a lack of bathrooms was problematic.
 - 1. Aaron and Nytasha noted that current conditions around the area are likely to change with more retail development, restaurants and foot traffic.
 - 2. Nytasha confirmed that there are no bathrooms currently planned for the facilities and noted that bathrooms were very expensive to maintain in these types of public facilities.
 - 3. Bob and Nytasha also confirmed that city does not need to acquire additional property on the east side to accommodate any of the prospective design options. City will take over plaza after Sound Transit construction is complete.

- ii. **Safety:** Attendees had several comments related to design elements under the



Briefing Notes

Sound Transit track. Several attendees thought the clearance was too low and too close to the tracks. One attendee was concerned that design options had too many corners and dark spaces that would create a safety risk, particularly at night.

1. Bob and Aaron reiterated that the project has spatial constraints with both I-5 and the Sound Transit tracks. Bridge and pathways also need to meet ADA accessibility standards. Aaron reiterated that Sound Transit will have security staff on site.
2. Attendees voiced support for Option C and said a more condensed plaza was an okay tradeoff for a more direct route between the bridge and station.

d. Bridge Options: Attendees asked several questions about the four bridge type options.

- i. Attendee asked if the bridge will light up like one of the bridges across Aurora Avenue.
 1. Aaron confirmed that we will not be able to do that under WSDOT regulations. Other art options are under consideration.
- ii. Attendees asked which bridge was best designed for seismic activity.
 1. Aaron confirmed that all bridge options will meet that same seismic standards.
 2. Aaron also confirmed that WSDOT will review options.
 3. Bridge will be fabricated off-site to mitigate closure and disruption to I-5.
 4. Attendees responded most positively to the Tied Arch Bridge. One person commented that the Truss Bridge looked too much like a railroad.

e. Neighborhood travel and access:

- i. Attendees asked how these pathways related to other open space projects.
 1. Nytasha said the city is working toward greater connection through greenways, that include routes near I-5 and the Burke Gilman Trail. The city will be doing an update of its master transportation plan soon.
- ii. One attendee strongly articulated his concern that neighborhood connectivity is very poor on the east side of the bridge and that there are not enough sidewalks or curbs to get people safely to the light rail. He also felt that the city has done a poor job informing and working with residents.
 1. Nytasha emphasized that there are several other improvement projects related to this area. She said the city could come back to provide overview of projects. She also emphasized that the project team will make sure to put the N 148th Non-Motorized Bridge in context to the greater planning efforts as we go forward.



Briefing Notes

5. Next Steps/Action Items

Task	Responsible	DUE
Specific request		
Suggested information to share based on questions from group		
Send information about other improvement project related to 5th Avenue NE area/walkshed to board contacts.	Nytasha and Lea	2/7



MEETING NOTES

Attendees:	Agency/Company:	Date:	12/9/19
Lea Bonebrake	City of Shoreline	KPFF Job	1800398
Bob Earl	City of Shoreline	No.:	
Nytasha Walters	City of Shoreline	Shoreline	9263
Juniper Nammi	City of Shoreline	Job No:	
Melanie Vance	WSDOT Local Programs	Task No.:	2.0
Hung Huynh	WSDOT NWR Design	Project:	N148th NMB
Christina Stround	WSDOT		Project
David Narvaez	WSDOT Local Programs	Subject:	Project Kickoff
Mehrdad Moini	WSDOT Local Programs		Meeting WSDOT
Renae Larsen	WSDOT Local Programs	Mtg. Place	Shoreline City Hall
Peter Alm	WSDOT		
Betsy Chase	WSDOT Real Estate		
Dan Hoyt	WSDOT Planning Manager		
Dan Logan	WSDOT Real Estate		
Celeste Gilman	WSDOT RTC		
Lindsey Handel (?)	FHWA		
Aaron Olson	KPFF		
Rachel Liberty	KPFF		
Keith Ireland	KPFF		

The purpose of the meeting was to re-introduce WSDOT to the scope and purpose of the N 148th street Non-Motorized Bridge Project which included discussion of constraints and requirements of a crossing WSDOT's facility.

Forward Compatibility/WSDOT ROW:

East Bridge Landing:

- The group discussed the 94' and 84' forward compatibility line (FCL) along the east side of I-5 which was used during the Lynnwood Link design project. These guidelines can be used during design development for this project.
- A bridge pier at the east landing will likely need to be placed in the amenity zone (i.e. between the 94' and 84' lines). The bridge pier would need to be able to accommodate future drainage features (e.g. ditches) and other improvements (e.g. ITS, etc).
- Bridge pier locations will be shown in the TS&L and 30% deliverable for WSDOT review and comment.
- The City and Sound Transit currently have an understanding that the City will take possession of parcels @ the 145th street station site at the end of construction and that ST will have a transit easement on City property. Once this agreement has been formalized, WSDOT will need this documentation.

- ST and WSDOT currently have an airspace lease agreement at the 145th street station. This agreement will need to be modified for the portion of the pedestrian bridge that impacts this area.

West Bridge Landing:

- No FCL along the west side of I-5 was established in this vicinity for the Lynnwood Link project.
- The Lynnwood Link project did establish similar FCL where Sound Transit's guideway transitioned to the west side of the freeway. These guidelines can be applied in pedestrian bridge project area.
- The design team will reach out to Jeff S. of WSDOT's management of mobility team to gather information regarding I-5 planning work and future needs in this area.
- Corridor ITS is present in the SB I-5 shoulder

Airspace/Trail Lease:

- The City will be seeking a trail lease for the aerial crossing of I-5. The bridge will need to be identified in the City's trail/transportation masterplan to qualify.
- Trail lease will take approximately 1 year from submittal of exhibits to executed lease.
- It's possible that NEPA may run concurrently with this process.

SB I-5 Sign Bridge:

- The existing sign bridge at the NE 145th St exit off of I-5 will be impacted by the proposed pedestrian location.
- The Northgate Way advisory sign is not required by the MUTCD. It's likely that this sign could be relocated to the 145th st vehicular bridge (if required). A new sign would need to be provided.
- The exit sign may be relocated further north onto a cantilever sign bridge to accommodate the pedestrian bridge. Horizontal clearance requirements will be dictated by sign bridge maintenance requirements. WSDOT to provide these clearance requirements.

Thornton Creek:

- A piped section of Thornton Creek parallels SB I-5 in the vicinity of the pedestrian bridge project
- This section of Thornton Creek may be on the fish passage injunction list. It is unknown at this time if WSDOT has any immediate or future plans for a fish passage project. The design team will coordinate with WSDOT to determine if this is the case.
- It is advised that this pedestrian bridge project avoid impacts to Thornton Creek including drainage discharge
- It is advised that the Muckleshoots be invited to the NEPA kickoff meeting (still to be scheduled)
- The design team will request as-builts for section of Thornton Creek for inclusion in the project basemap.

- Critical areas – 165ft buffer around Thornton Creek

Architectural/Structural Requirements:

- It is unknown at this time whether corridor specific WSDOT architectural standards will be adhered to. The design team will follow-up with WSDOT to confirm
- Although the WSDOT Design Manual does not necessarily require throw barriers for all crossings, they will likely be required given the context of the site. BNSF guidelines are often used as a starting point for throw barriers.
- Lighting on the bridge will be required for user safety but should not serve as a distraction to drivers on I-5. Uplighting or other accent lighting should be avoided.
- WSDOT has no known restrictions on structure type (i.e. cable stay, truss, arch, etc). Future maintenance of the structure will need to be considered in structure type selection
- Design team to confirm with Roman Peralta (WSDOT) on routine inspection requirements for pedestrian bridges that cross WSDOT facilities
- A bridge maintenance agreement between the City and WSDOT will be required
- Construction permit from WSDOT will be required. WSDOT inspectors will need to be present during construction

Deliverable Review and Communications:

- The City/design team will submit draft TS&L report and 30% to WSDOT for review and comment.
- The basis of design for the project has been recently completed. The City will distribute to WSDOT for review and comment.
- Hung H. and Lee Fanning will serve as primary point of contact between City and WSDOT for coordination items
- A JZ account between WSDOT and the City has already been setup. The City and WSDOT will coordinate to ensure enough funds are obligated to this account for deliverable reviews.

Action Items				
No.	Description	Person(s) Responsible	Due Date	Complete?
1	Contact Jeff S of WSDOT management of mobility team to determine future I-5 plans at 145 th interchange	Hung H.	12/31	
2	Define/determine horizontal clearance required for maintenance of proposed 145 th off-ramp sign bridge	Hung H.	12/31	

3	Provide as-built plans for pipe section of Thornton Creek in the vicinity of proposed bridge	Hung H.	1/8	
4	Determine whether pipe section of Thornton Creek is on WSDOT fish barrier injunction list and whether there are any plans for replacing this section of the culvert.	Hung H	1/8	
5	Determine bridge inspection requirements with Roman Peralta (WSDOT)	KPFF/Hung H.	1/8	
6	Review and comment on Basis of Design Document	Hung H./WSDOT	1/15	
7	Determine if JZ account needs to be supplemented to account for WSDOT coordination effort	Lea B/Hung H.	1/8	



Sound Transit Kickoff Meeting Agenda

North 148th Street Non-Motorized Bridge Design

Contract #9263

Consultant: KPFF, Inc.

December 19, 2019, 3:00 p.m.

Attendees:

Lea Bonebrake	City of Shoreline
Bob Earl	City of Shoreline
Taylor Carroll	Sound Transit
Aaron Olson	KPFF

Introductions & Project Roles

Meeting Objectives

- 1) Re-introduce project to Sound Transit (ST) including purpose and need
- 2) Discuss constraints of building adjacent to ST facilities
- 3) Establish lines of communication and review

Project Background

- The 145th Multi-modal corridor study and 145th Subarea Plan recommendations
- Review feasibility analysis and recommended alignment alternatives

Preliminary Design Review

- Share current design development

Structural & Architectural Requirements

- Corridor architecture requirements
- Permissible bridge types
- Inspection & maintenance requirements
- Geotechnical foundation influence zones

Construction Requirements

- Construction envelopes
- Staging areas
- Construction schedule



Sound Transit Kickoff Meeting Agenda

Sound Transit Coordination

- ST departmental review
- Main point of contact

Deliverables Review

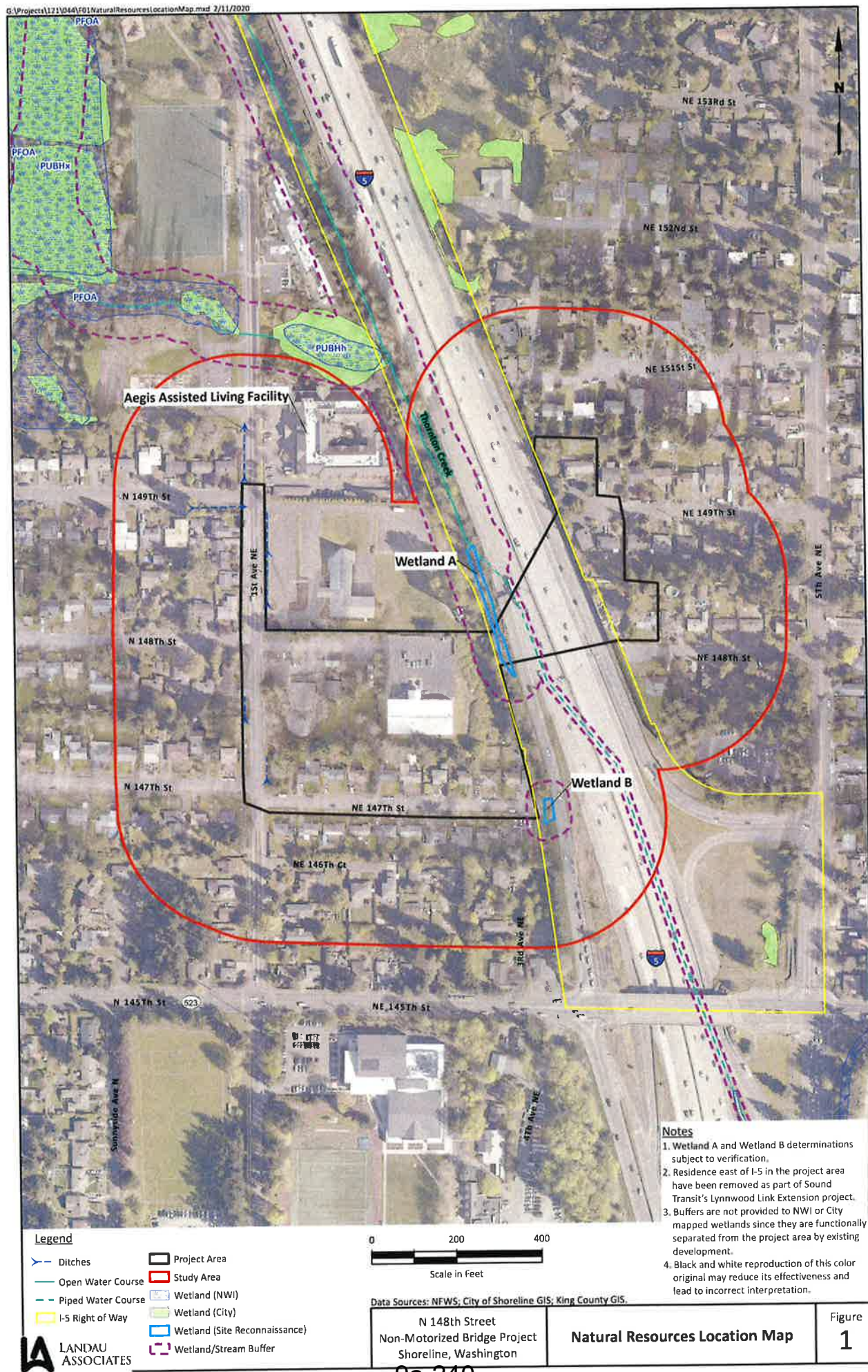
- Basis of Design
- Bridge/Trail TS&L
- 30% Design & beyond

Open Discussion

Appendix 5

Project Background Information and Meeting Notes

Environmental Permitting



Appendix 5

Project Background Information and Meeting Notes

Landscaping Plant Palette

1. Plant Palette

LANDSCAPE SPECIES RECOMMENDATIONS

Table 1-1: TREES

Type	Latin Name	Common Name
1. Large Tree	<i>Quercus frainetto</i> 'Schmidt'	Forest Green Italian Oak
2. Large Tree	<i>Nyssa sylvatica</i> 'David Odom'	Afterburner Tupelo
3. Medium Tree	<i>Acer campestre</i> 'Evelyn'	Queen Elizabeth Hedge Maple
4. Medium Tree	<i>Halesia monticola</i>	Mountain Silverbell
5. Accent Tree	<i>Amelancier grandiflora</i> 'Princess Diana'	Princess Diana Serviceberry
6. Accent Tree	<i>Acer circinatum</i>	Vine Maple
7. Evergreen Tree	<i>Metasequoia glyptostroboides</i>	Dawn Redwood
8. Evergreen Tree	<i>Picea omorika</i>	Serbian Spruce
9. Evergreen Tree	<i>Thuja plicata</i> 'Excelsa'	Excelsa Cedar

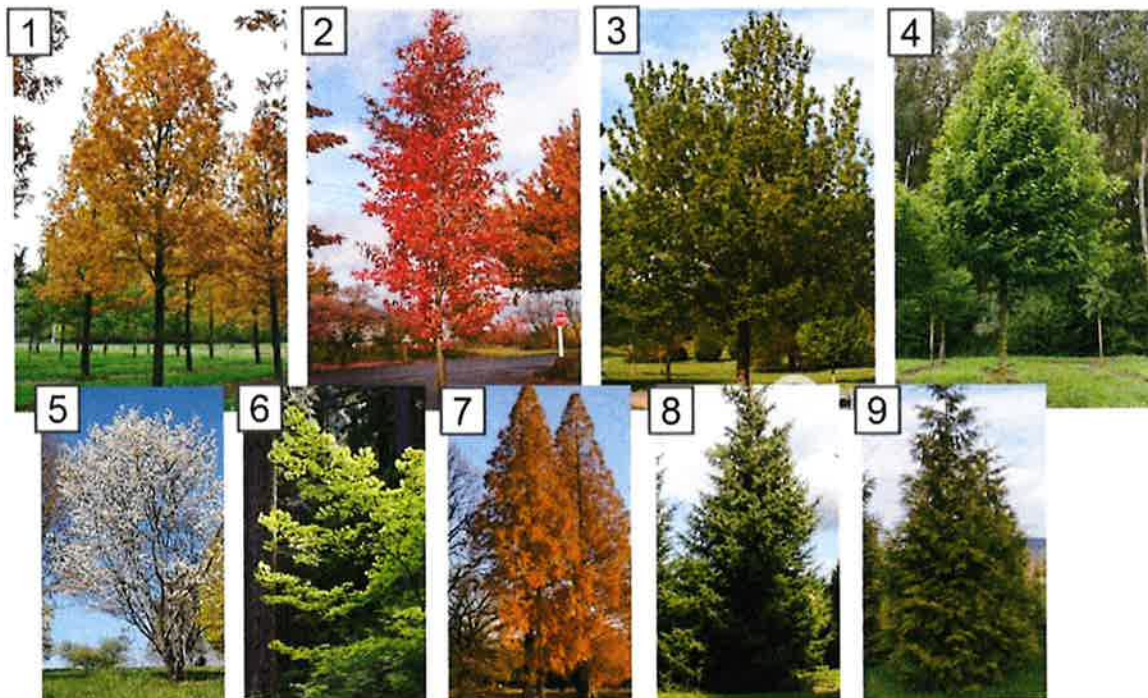


Table 1-2: SCREENING

Type	Latin Name	Common Name
1. Accent Tree	<i>Acer circinatum</i>	Vine Maple
2. Evergreen Tree	<i>Picea omorika</i>	Serbian Spruce
3. Evergreen Tree	<i>Thuja plicata</i> 'Excelsa'	Excelsa Cedar
4. Shrub	<i>Ribes sanguineum</i>	Flowering Currant
5. Shrub	<i>Myrica californica</i>	Pacific Wax Myrtle
6. Shrub	<i>Vaccinium ovatum</i> 'Thunderbird'	Thunderbird Evergreen Huckleberry
7. Shrub	<i>Mahonia x media</i> 'Winter Sun'	Winter Sun Mahonia
8. Shrub	<i>Spiraea betulifolia</i> 'Tor'	Tor Birchleaf Spirea
9. Shrub	<i>Gaultheria shallon</i>	Salal
10. Shrub	<i>Mahonia nervosa</i>	Cascade Oregon Grape
11. Fern	<i>Polystichum munitum</i>	Sword Fern

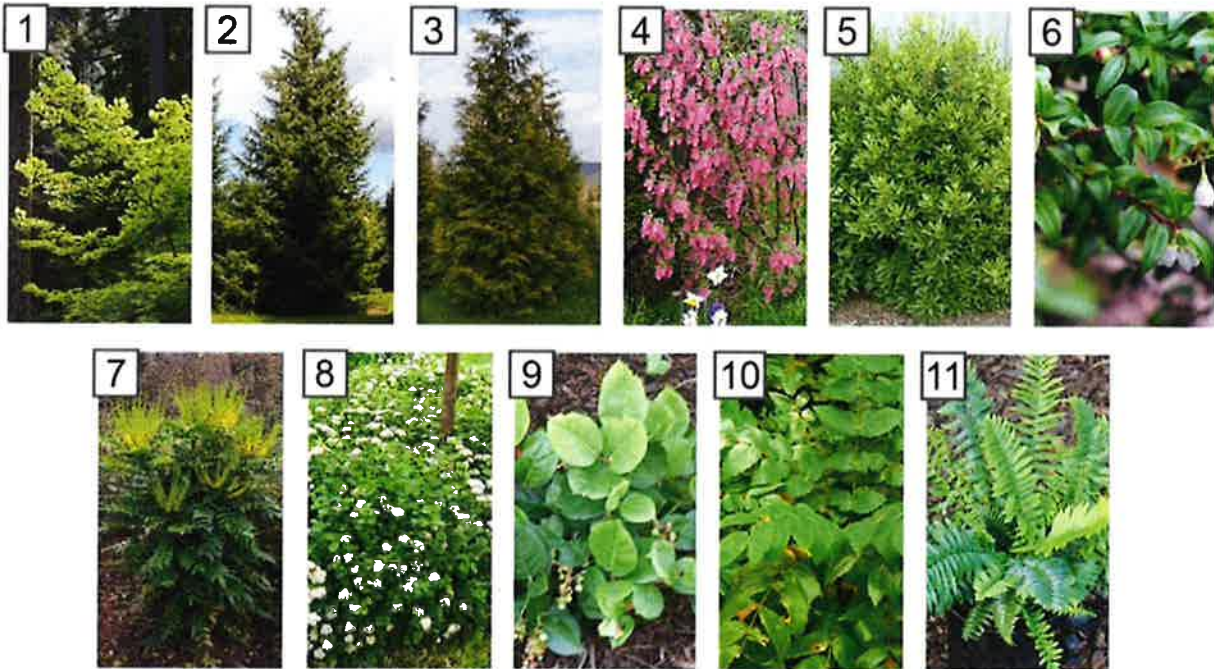


Table 1-3: EDGE RESTORATION

Type	Latin Name	Common Name
1. Shrub	<i>Symphoricarpos albus</i>	Snowberry
2. Shrub	<i>Mahonia aquifolium</i>	Kelseyi Red Twig Dogwood
3. Shrub	<i>Gaultheria shallon</i>	Salal
4. Shrub	<i>Mahonia nervosa</i>	Cascade Oregon Grape </td
5. Fern	<i>Polystichum munitum</i>	Sword Fern
6. Grass	<i>Deschampsia cespitosa</i>	Tufted Hair Grass
7. Groundcover	<i>Arctostaphylos uva-ursi</i>	Kinnikinnick
8. Groundcover	<i>Fragaria chiloensis</i>	Beach Strawberry



Table 1-4: ORNAMENTAL PLANTING

Type	Latin Name	Common Name
1. Shrub	<i>Lonicera pileata</i>	Privet Honeysuckle
2. Shrub	<i>Rhododendron 'Percy Wiseman'</i>	Percy Wiseman Rhododendron
3. Shrub	<i>Deutzia gracilis 'Nikko'</i>	Dwarf Slender Deutzia
4. Shrub	<i>Prunus laurocerasus 'Mt. Vernon'</i>	Mount Vernon Laurel
5. Shrub	<i>Escallonia 'Newport Dwarf'</i>	Newport Dwarf Escallonia
6. Shrub	<i>Berberis thunbergii 'Concorde'</i>	Concord Barberry
7. Shrub	<i>Mahonia repens</i>	Creeping Oregon Grape
8. Grass	<i>Calamagrostis x acutiflora 'Karl Foerster'</i>	Feather Reed Grass
9. Grass	<i>Sesleria autumnalis</i>	Autumn Moor Grass
10. Perennial	<i>Achillea millefolium 'Walther Funcke'</i>	Walther Funke Yarrow
11. Perennial	<i>Geum 'Flames of Passion'</i>	Flames of Passion Avens
12. Groundcover	<i>Rubus pentalobus</i>	Creeping Bramble
13. Groundcover	<i>Epimedium x perralchicum 'Frohnleiten'</i>	Hybrid Epimedium
14. Vine	<i>Parthenocissus tricuspidata</i>	Boston Ivy



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Appendix 6

Online Open House Report and Content

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N 148th STREET NON-MOTORIZED BRIDGE PROJECT

ONLINE OPEN HOUSE FINAL REPORT

APRIL 10-MAY 1, 2020

SUMMARY

As part of the N 148th Street Non-Motorized Bridge Project, the City of Shoreline hosted an online open house between April 10 and May 1, 2020, to share information and gather input on the design of the bridge and how it connects to the neighborhoods on the east and west sides of I-5.

When visiting the online open house, participants could:

- Learn more about the project need, benefits, and schedule.
- Review the options being considered for each design element and provide feedback on those options.
- Share how they plan to use the bridge and what criteria is most important to them.
- Share demographic information to help determine the effectiveness of the City's outreach.
- Sign up for email updates about this project and others in the N 145th Street corridor.

Promotions

The City used multiple methods to reach audiences and promote the online open house. A postcard advertising the online open house and the webinar was sent to 4,195 addresses in the project area. Information about the online open house was also posted on the project webpage and on social media, and the project team sent emails to project partners, neighborhood organizations, and project stakeholders. The online open house was available in English, Korean, and Spanish.

METHODOLOGY

The following report captures qualitative and quantitative data for survey questions. The online open house included 14 questions related to the project design elements and 14 questions related to criteria, travel, and respondent demographics. All questions were optional. Not all respondents answered every question. Many questions allowed respondents to select more than one answer. Questions with more than one answer do not use percentage to calculate any total value or representation.

Use and Activity

Between April 10 and May 1, 529 individuals visited the online open house. There were 165 survey respondents. Each question received a different number of responses, including:

- 125 responses to bridge structure questions
- 87 responses to the east bridge landing questions
- 113 responses to the west trail connection questions
- 98 responses to evaluation criteria questions
- 110 responses to bridge use and demographic questions
- 33 open-ended comments in response to the question *"Is there anything else you would like to share about the N 148th St Non-Motorized Bridge Project?"*

All survey entries were in English. The online open house received very few views in Spanish and Korean.

KEY FINDINGS

Demographics and Priorities

About 31% of online open house visitors completed survey questions. Seventy-nine percent (79%) of respondents who provided a ZIP code listed 98133 or 98155. About 44% of respondents who provided a ZIP code lived on the west side of I-5 and about 56% lived on the east side of I-5. About half of respondents are already planning to use the bridge to connect to light rail and nearby walking/bike trails and most plan to walk or bicycle. One-third were not yet sure if they plan to use the bridge.

Survey respondents who provided demographic information overwhelmingly identified as White or Caucasian and English-speaking. Most respondents were 35 or older, with the largest represented age group being those 65 years or older (22%). Eighty-nine percent (89%) of survey respondents were homeowners.

When considering criteria to evaluate design options, survey respondents identified the following as their top priorities:

- Improve pedestrian travel (e.g., sidewalks, crosswalks) (55%)
- Maintain safe environment for community (44%)
- Shorten travel time to light rail station/transit center (34%)

Bridge Span

The Tied Arch option was the most popular design; 57% of respondents selected it as their top choice. Respondents liked the overall look design of the Tied Arch, as well as the size. Respondents noted that minimizing cost, ensuring aesthetic appeal, and maximizing safety were all important factors to consider when selecting a bridge option. Regardless of where they live or what mode of travel they plan to use, participants preferred the Tied Arch option.

East Bridge Landing

More than 90% of survey respondents preferred the Direct Ramp option, regardless of where they live or what mode of travel they use. Respondents liked the overall layout, the connection to the Trail Along the Rail, and the connection to the light rail station. Accessibility and safety were key considerations. Many respondents noted that the more angular shapes of the other two options would present challenges for those on bicycles and those using assisted modes of travel.

Respondents noted that the corner angles in both the A-Frame and Switchback options would create blind spots and risk of collisions.

West Trail Connection

Fifty-seven percent (57%) of respondents preferred the Full Build-Out option. Respondents liked the overall design and the shared path for pedestrian and bicyclists. Safety was an important consideration for respondents. With the Minimal Build-Out option, respondents worried that the shared use of the drive aisle by vehicles and bicycles would create an increased risk for collisions, as well as liability for the neighboring churches.

Although respondents preferred the Full Build-Out option, many also listed loss of parking and loss of mature trees as concerns for any work being done on this portion of the project.

The Full Build-Out option was the most popular among respondents, regardless of where they live. Those who selected walking as a mode of travel had a slight preference for the Minimal Build-Out option; this option would include a designated path for pedestrians.

OTHER KEY THEMES

Maintain mature trees: Throughout each section of the survey, respondents emphasized the importance of maintaining mature trees in the project area wherever possible.

Manage project costs: Many respondents noted that managing project costs was an important factor, and some recommended the project team should select the least expensive design for each section of the project.

Delineated areas of travel: Participants also noted that it will be important throughout each project section to have clear signage and painted lanes to distinguish pedestrian pathways from bicycle/wheeled pathways.

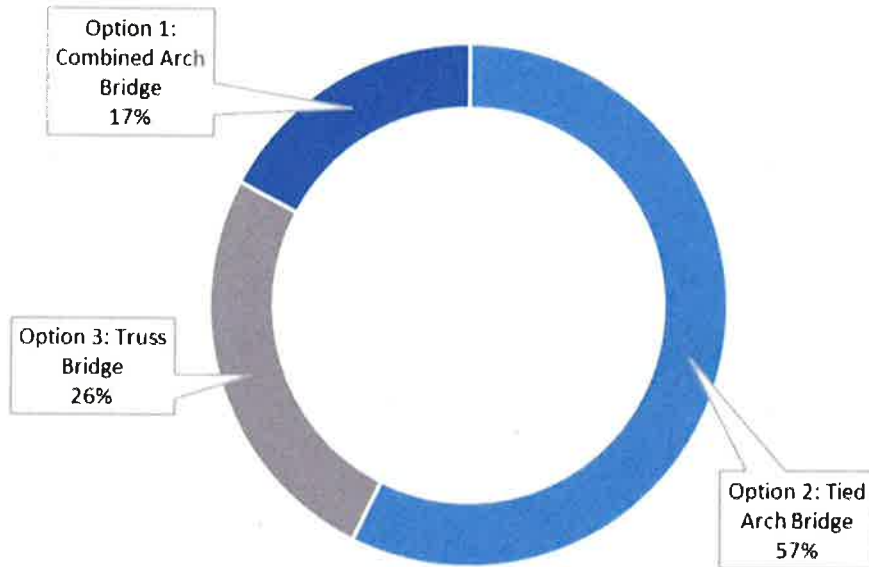
Other street improvements: Throughout each section of the survey, participants noted the need for street improvements around the project area, such as 1st Avenue NE and N 145th Street. Many noted that there was a need to improve pedestrian travel and safety on N 145th Street, regardless of how the bridge connects to N 148th Street.

NEXT STEPS

Public input is one of several key factors the project team is considering as they identify a preferred option for the project design. The project team will recommend a preferred option to Shoreline City Council in June 2020 for approval. Once approved, the project team will continue to refine the overall design and move toward 30% design in fall 2020. More opportunities for public input will be provided during summer and fall 2020.

BRIDGE

WHICH BRIDGE OPTION DO YOU PREFER?



Answers	Percentage	Tally
Option 2: Tied Arch Bridge	57%	63
Option 3: Truss Bridge	26%	28
Option 1: Combined Arch Bridge	17%	19
Total	100%	110

OPTION 1: COMBINED ARCH BRIDGE

What do you like about this option? Select all that apply.

Answers	Tally
Overall look and design	57
Size	25
Other	6

Respondents: 67

What do you dislike about this option? Select all that apply.

Answers	Tally
Overall look and design	23
Size	12
Other	6

Respondents: 38

OPTION 2: TIED ARCH BRIDGE

What do you like about this option? Select all that apply.

Answers	Tally
Overall look and design	82
Size	31
Other	11

Respondents: 86

What do you dislike about this option? Select all that apply.

Answers	Tally
Size	18
Overall look and design	12
Other	5

Respondents: 29

OPTION 3: TRUSS BRIDGE

What do you like about this option? Select all that apply.

Answers	Tally
Overall look and design	25
Size	20
Other	9

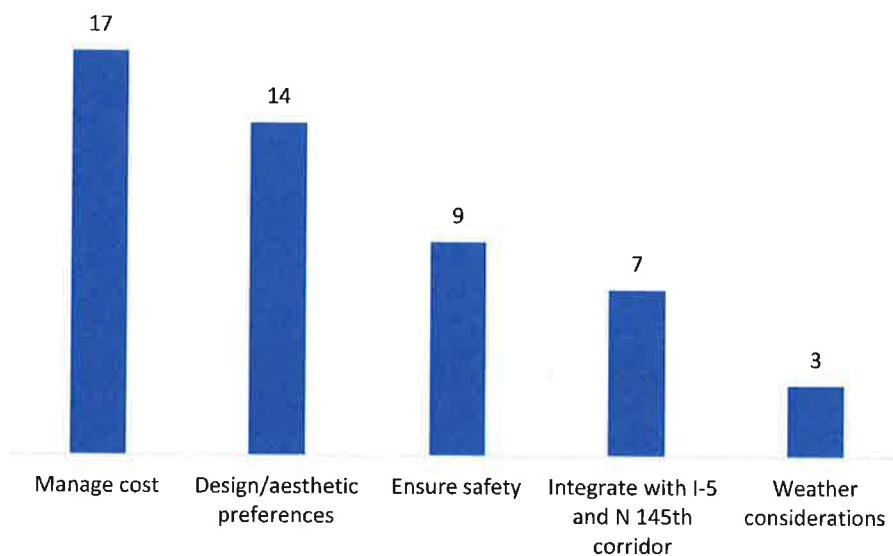
Respondents: 38

What do you dislike about this option? Select all that apply.

Answers	Tally
Overall look and design	68
Size	17
Other	14

Respondents: 75

Is there anything you think we should consider while evaluating these bridge options? (Write-in response)



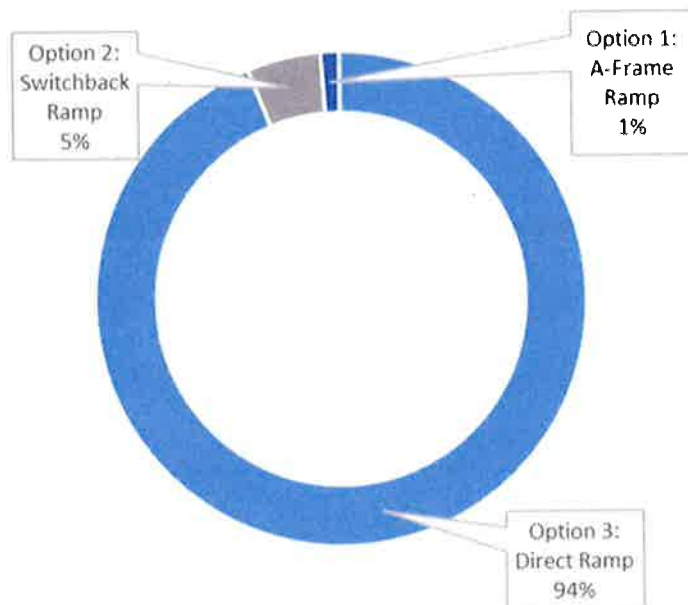
Recurring Themes	Tally
Manage cost	17
Design/aesthetic considerations	14
Maintain safety	9
Integrate with I-5 and N 145th corridor	7
Weather considerations	3

Other comments included ensuring bridge was easy to access, limiting bike and pedestrian interactions and ensuring the protection of mature trees.

Respondents: 48

EAST BRIDGE LANDING

WHICH OPTION DO YOU PREFER?



Answers	Percentage	Tally
Option 3: Direct Ramp	94%	77
Option 2: Switchback Ramp	5%	4
Option 1: A-Frame Ramp	1%	1
Total	100%	82

OPTION 1: A-FRAME RAMP

What do you like about this option? Select all that apply.

Answers	Tally
Stair access to station	22
Connection to light rail station	19
Pedestrian and bicycle pathways	17
Ramp layout	12
Connection to Trail Along the Rail	12
Other	3
Height clearance from Sound Transit tracks	2

Respondents: 31

What do you dislike about this option? Select all that apply.

Answers	Tally
Height clearance from Sound Transit tracks	36
Ramp layout	29
Connection to Trail Along the Rail	16
Other	15
Stair access to station	12
Pedestrian and bicycle pathways	5
Connection to light rail station	4

Respondents: 57

OPTION 2: SWITCHBACK RAMP

What do you like about this option? Select all that apply.

Answers	Tally
Height clearance from Sound Transit tracks	25
Connection to light rail station	14
Ramp layout	12
Pedestrian and bicycle pathways	11
Stair access to station	11
Connection to Trail Along the Rail	7
Other	5

Respondents: 40

What do you dislike about this option? Select all that apply.

Answers	Tally
Ramp layout	34
Connection to Trail Along the Rail	21
Stair access to station	18
Connection to light rail station	7
Pedestrian and bicycle pathways	7
Height clearance from Sound Transit tracks	6
Other	6

Respondents: 48

OPTION 3: DIRECT RAMP

What do you like about this option? Select all that apply.

Answers	Tally
Ramp layout	53
Connection to Trail Along the Rail	50
Connection to light rail station	48
Height clearance from Sound Transit tracks	34
Pedestrian and bicycle pathways	33
No stair access to station	29
Other	8

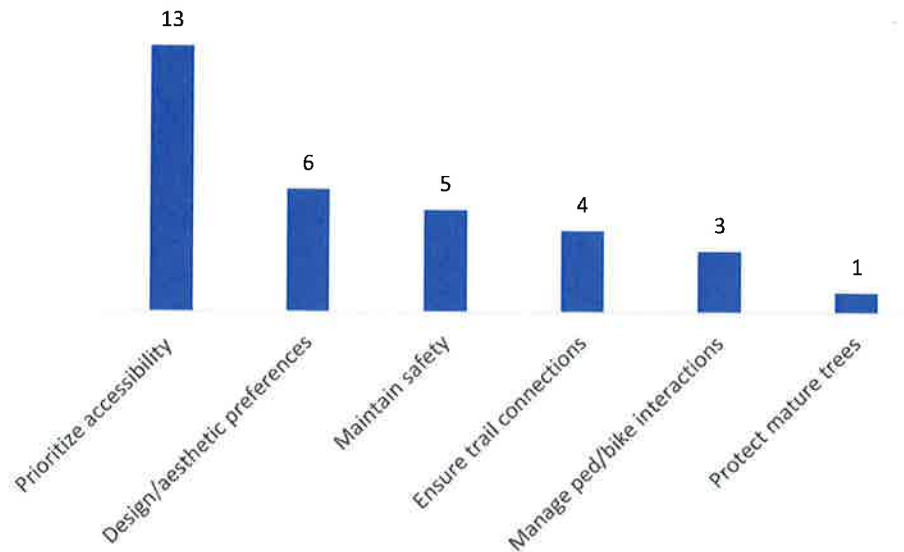
Respondents: 66

What do you dislike about this option? Select all that apply.

Answers	Tally
No stair access to station	15
Height clearance from Sound Transit tracks	6
Ramp layout	4
Pedestrian and bicycle pathways	3
Other	3
Connection to Trail Along the Rail	2
Connection to light rail station	1

Respondents: 24

Is there anything you think we should consider while evaluating these options for the East Bridge Landing? *(Write-in response)*

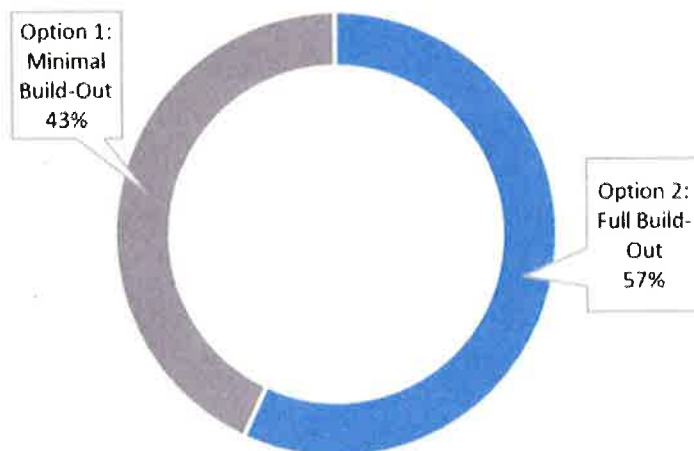


Recurring Themes	Tally
Prioritize accessibility	13
Design/aesthetic preferences	6
Maintain safety	5
Ensure trail connections	4
Manage ped/bike interactions	3
Protect mature trees	1

Respondents: 24

WEST TRAIL CONNECTION

WHICH OPTION DO YOU PREFER?



Answers	Percentage	Tally
Option 2: Full Build-Out	57%	57
Option 1: Minimal Build-Out	43%	43
Total	100%	100

OPTION 1: MINIMAL BUILD-OUT

What do you like about this option? Select all that apply.

Answers	Tally
Separation between bicyclists and pedestrians	47
Parking options	33
Trail design	26
Other	11

Respondents: 68

What do you dislike about this option? Select all that apply.

Answers	Tally
Separation between bicyclists and pedestrians	31
Trail design	28
Other	26
Parking options	11

Respondents: 65

OPTION 2: FULL BUILD-OUT

What do you like about this option? Select all that apply.

Answers	Tally
Trail design	51
Shared bicycle and pedestrian path	49
Other	9
Parking options	5

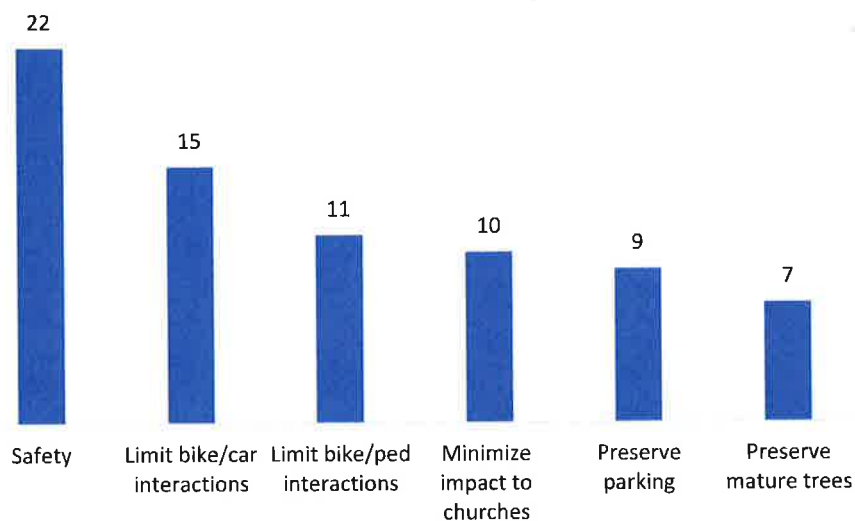
Respondents: 63

What do you dislike about this option? Select all that apply.

Answers	Tally
Shared bicycle and pedestrian path	39
Parking options	34
Other	13
Trail design	12

Respondents: 61

Is there anything you think we should consider while evaluating these options for the West Trail Connection? (Write-in response)



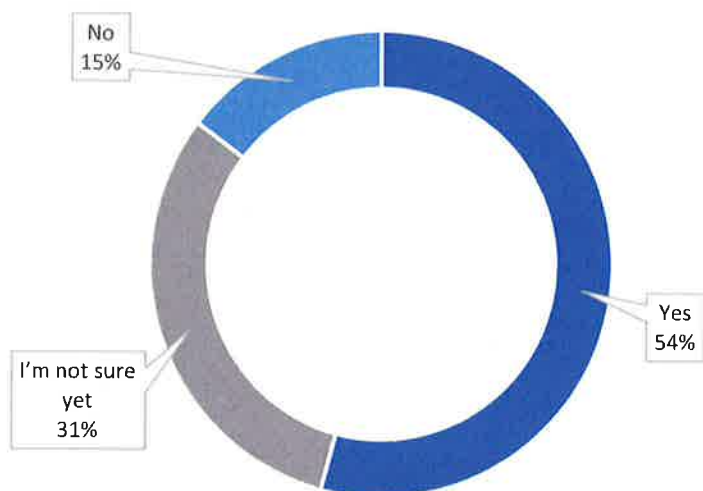
Recurring Themes	Tally
Safety	22
Limit bike/car interactions	15
Limit bike/ped interactions	11
Minimize impact to churches	10
Preserve parking	9
Preserve mature trees	7

Other comments included requests for more detailed plans, recommendations for landscaping, and the need to manage traffic flow into the area.

Respondents: 45

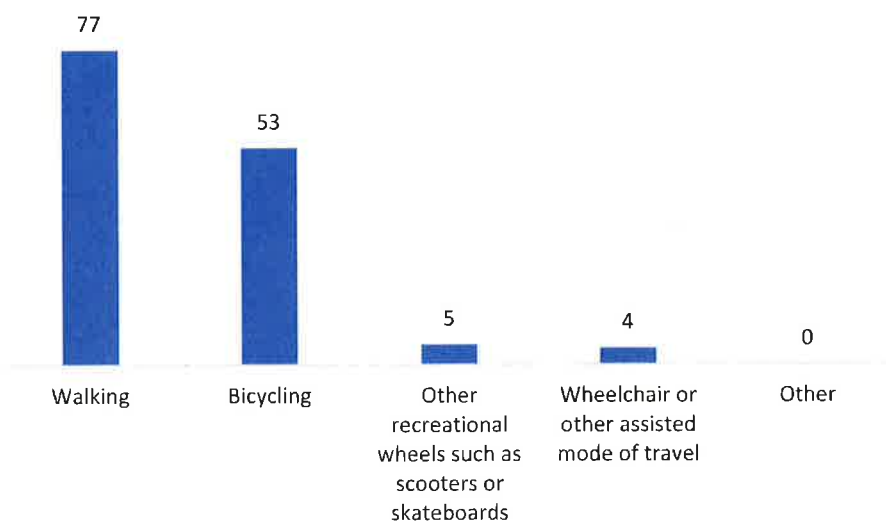
DEMOGRAPHIC INFORMATION

Do you plan to use the new N 148th Street Non-Motorized Bridge?



Answers	Percentage	Tally
Yes	54%	59
I'm not sure yet	31%	34
No	15%	16
Total	100%	109

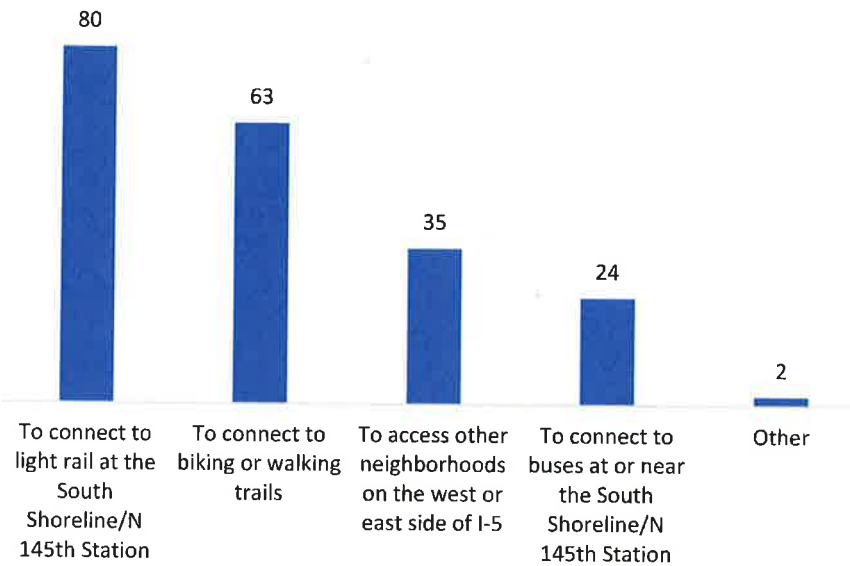
If you do plan to use the bridge, what modes of travel do you plan to use? Select all that apply.



Answers	Tally
Walking	77
Bicycling	53
Other recreational wheels such as scooters or skateboards	5
Wheelchair or other assisted mode of travel	4
Other	0

Respondents: 92

If you do plan to use the bridge, what will be the purpose of your travel? Select all that apply.



Answers	Tally
To connect to light rail at the South Shoreline/N 145th Station	80
To connect to biking or walking trails	63
To access other neighborhoods on the west or east side of I-5	35
To connect to buses at or near the South Shoreline/N 145th Station	24
Other	2

Respondents: 91

Please select the top three criteria that are most important to you for this project.



**IMPROVE
PEDESTRIAN TRAVEL**

55%



**MAINTAIN SAFE
ENVIRONMENT**

44%



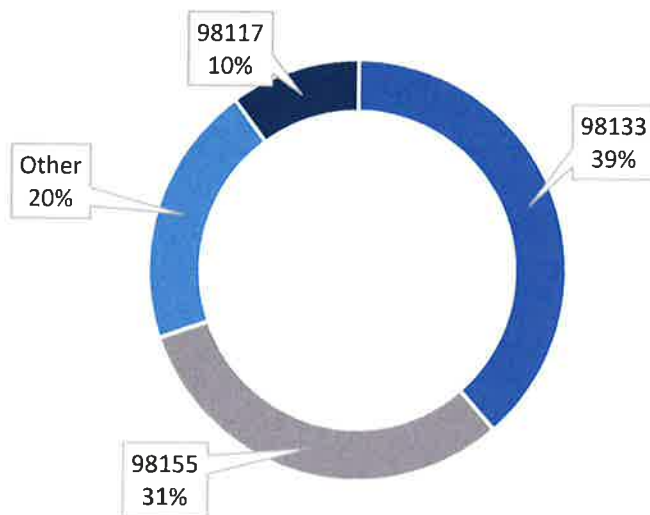
SHORTEN TRAVEL TIME

34%

Answers	Percentage	Tally
Improve pedestrian travel (e.g., sidewalks, crosswalks)	55%	59
Maintain safe environment for community	44%	47
Shorten travel time to light rail station/transit center	34%	36
Improve bicycle travel	33%	35
Protect mature trees	27%	29
Visual design and overall look	21%	23
Manage project costs	17%	18
Minimize impacts to neighboring properties	15%	16
Maintain existing parking options	13%	14
Limit city acquisition of private property	9%	10

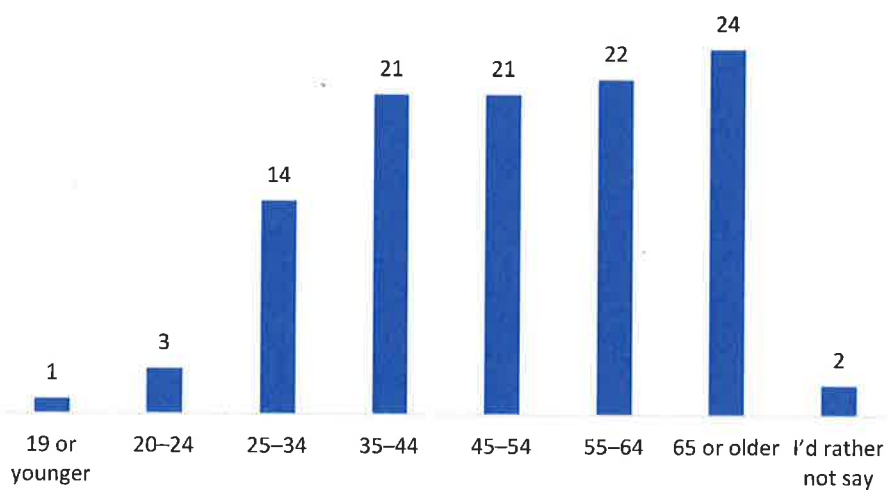
Respondents: 107

What is your ZIP code?



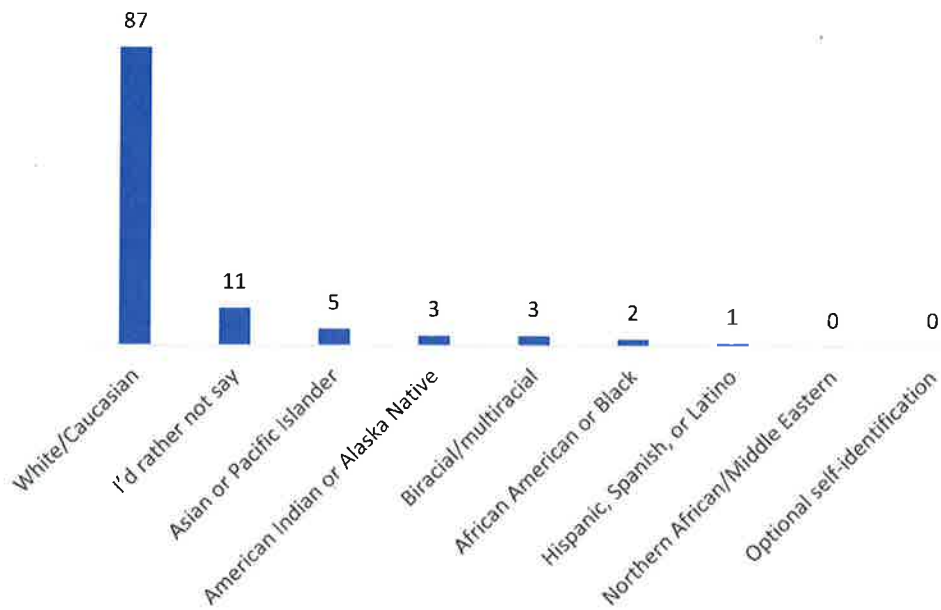
Answers	Percentage	Tally
98133	39%	42
98155	31%	34
Other	20%	22
98117	10%	11
Total	100%	109

What is your age?



Answers	Percentage	Tally
19 or younger	1%	1
20-24	3%	3
25-34	13%	14
35-44	19%	21
45-54	19%	21
55-64	20%	22
65 or older	22%	24
I'd rather not say	2%	2
Total	100%	108

What is your race/ethnicity? Select all that apply.



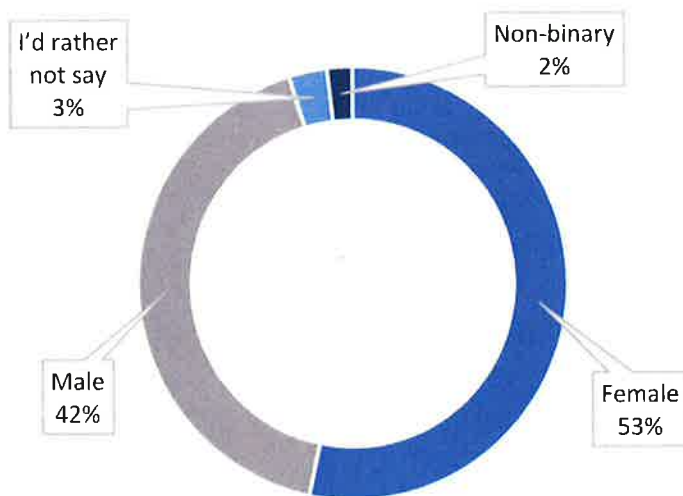
Answers	Tally
White/Caucasian	87
I'd rather not say	11
Asian or Pacific Islander	5
American Indian or Alaska Native	3
Biracial/multiracial	3
African American or Black	2
Hispanic, Spanish, or Latino	1
Northern African/Middle Eastern	0
Optional self-identification	0

Respondents: 107

What is the primary language spoken in your home?

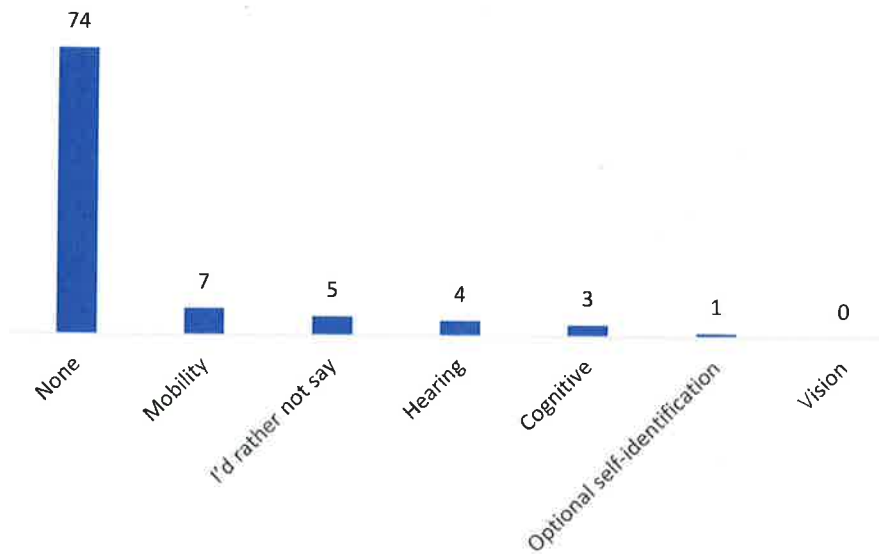
Answers	Percentage	Tally
English	100%	107
Amharic/Tigrinya	0%	0
Korean	0%	0
Mandarin/Cantonese	0%	0
Spanish	0%	0
Tagalog	0%	0
Vietnamese	0%	0
Other	0%	0
Total	100%	107

What gender do you identify as?



Answers	Percentage	Tally
Female	53%	56
Male	42%	44
I'd rather not say	3%	3
Non-binary	2%	2
Optional self-identification	0%	0
Total	100%	105

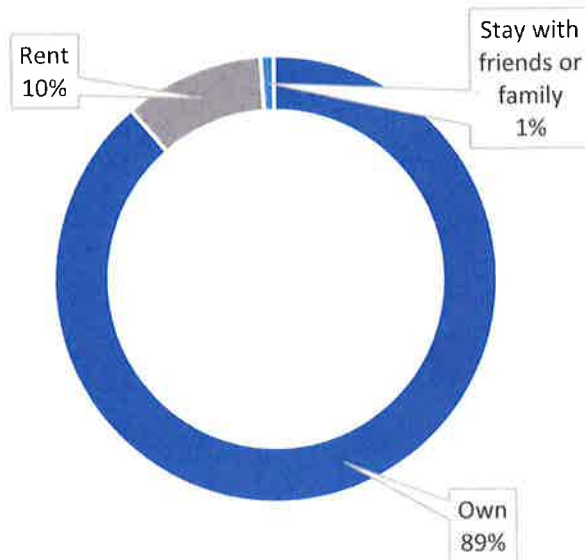
Do you have a disability? Select all that apply.



Answers	Tally
None	74
Mobility	7
I'd rather not say	5
Hearing	4
Cognitive	3
Optional self-identification	1
Vision	0

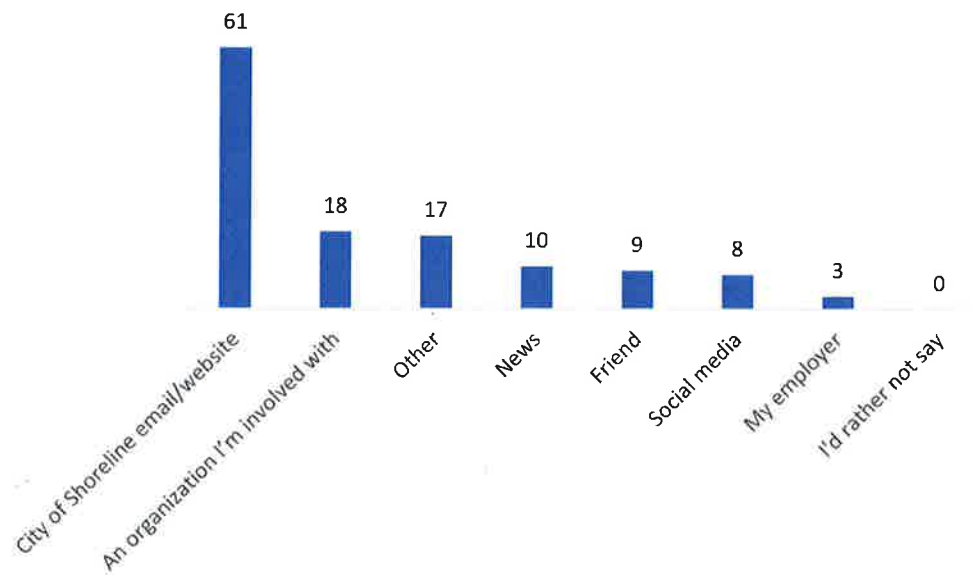
Respondents: 94

What is your current housing situation?



Answers	Percentage	Tally
Own	89%	95
Rent	10%	11
Stay with friends or family	1%	1
Without housing	0%	0
Other	0%	0
I'd rather not say	0%	0
Total	100%	107

How did you learn about this project? Select all that apply.

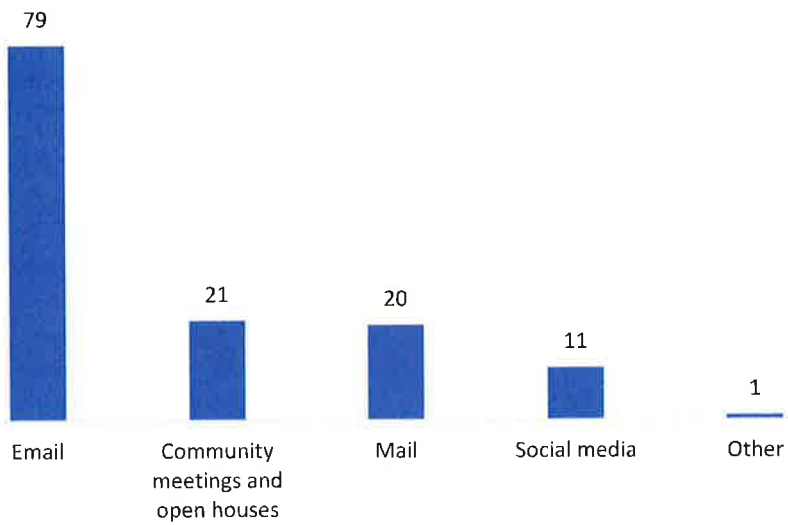


Answers	Tally
City of Shoreline email/website	61
An organization I'm involved with	18
Other	17
News	10
Friend	9
Social media	8
My employer	3

Respondents: 107

****Reporting Note:** This question unintentionally omitted "mailer" as an option. Several people who responded with "other" said they received a mailer from the City of Shoreline.

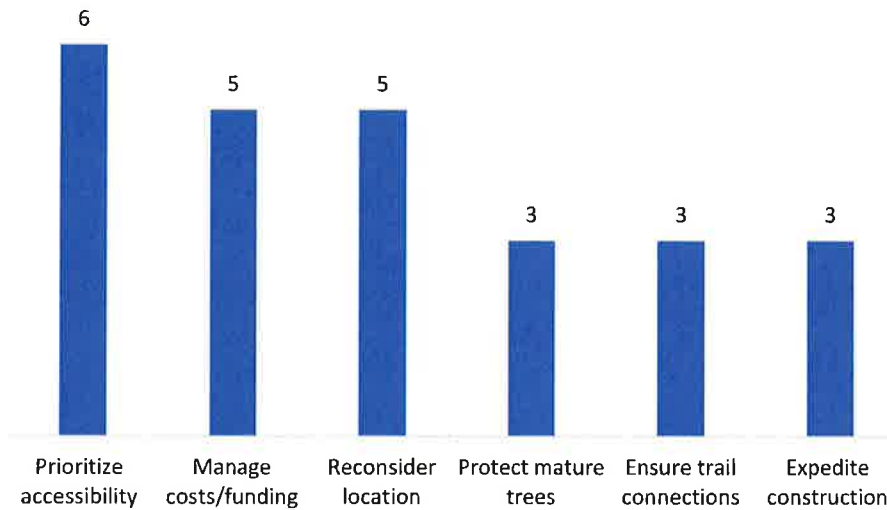
What is the best way to stay in touch with you about this project? Select all that apply.



Answers	Tally
Email	79
Community meetings and open houses	21
Mail	20
Social media	11
Other	1

Respondents: 99

Is there anything else you would like to share about the N 148th Non-Motorized Bridge Project?
(Write-in response)



Recurring Themes	Tally
Prioritize accessibility	6
Manage costs/funding	5
Reconsider location	5
Protect mature trees	3
Ensure trail connections	3
Expedite construction	3

Other comments included prioritizing safety, minimizing impacts to churches, and comments on other City of Shoreline projects.

Respondents: 33

WEB ACTIVITY REPORT

URL: 148bridge.infocommunity.org

Users | 529

Total number of individual IP addresses that visited the online open house at least once.

Sessions | 692

The number of individual visits to online open house from all users.

Total Pageviews | 2,454

The total number of times all pages within the online open house were viewed, inclusive of English, Spanish, and Korean pages.

Unique Pageviews | 2,138

This number aggregates multiple visits to a page within a single browsing session. Example: If a user viewed the Bridge page five times within one browsing session, the total number of unique views of that page would be one. If a user viewed the online open house on a Thursday and then came back to view again on a Friday, those visits are counted as multiple browsing sessions.

Pages Visited Per Session | 3.55

The average number of pages a user visited during a session.

Session Duration | 5 minutes, 20 seconds

The average time a user spent viewing the online open house during a session.

Device Use | Desktop (75%), Mobile (22%), Tablet (3%)

Top Traffic Sources | Direct Entry of URL (61%), City of Shoreline website (21%), Facebook (8%)

Appendix 6

Online Open House Content

N 148th Street Non-Motorized Bridge

A ped/bike bridge connecting people to neighborhoods and regional transit

HOME

PROJECT
OVERVIEW

SCHEDULE

BRIDGE

WEST TRAIL
CONNECTIONEAST BRIDGE
LANDINGGIVE MORE
FEEDBACKWHAT'S
NEXT?

ONLINE OPEN HOUSE

Welcome to the online open house for the N 148th Street Non-Motorized Bridge!

Shoreline is growing and changing. With the coming arrival of Sound Transit light rail, the new Shoreline South/145th Station for light rail and bus transit, and new development, residents need new ways to connect to these growing services and facilities and to an expanding pedestrian and bike network.

To meet these needs, the City of Shoreline will build a new pedestrian and bike bridge crossing over Interstate 5 (I-5) at N 148th Street. The N 148th Street Non-Motorized Bridge will improve safety for everyone and reduce travel times for people walking and biking between the east and west sides of I-5 in Shoreline.

The purpose of this online open house is to provide a chance for you to:

- Learn more about this project.
- Share what's important to you and give feedback on the key parts of this project.

How to use this online open house

- To advance through this open house, scroll down to read each page, then click the "Next Page" button at the bottom of the page, or select the tab you want at the top.
- Within this online open house, you will be asked questions and can provide feedback. The online open house and questionnaire will take only a few minutes to complete.

Thank you for your participation!

JOIN US FOR A WEBINAR

This live online presentation will take place on:

**Thursday, April 23, 2020
12:00–1:00 p.m.**

[Click here to register.](#)

Stay Connected

Sign up for updates and engagement opportunities about this project and others in the N 145th Street Corridor.

First Name

Last Name

Email *

*Email is Required

SUBMIT

> GO TO NEXT PAGE

TRANSLATION SERVICES:

If you would like to communicate with the City of Shoreline or review a document in another language, please send your request along with your contact information to clk@shorelinewa.gov or call 206-801-2700.

Si quisiera comunicarse con la ciudad de Shoreline o revisar un documento en otro idioma, envíe su solicitud junto con su información de contacto a clk@shorelinewa.gov o llame al 206-801-2700.

如果您想與 City of Shoreline 進行交流或檢視以另一種語言提供的文件，請將您的請求連同您的聯絡資訊發送到 clk@shorelinewa.gov 或請致電 206-801-2700。

쇼어라인 시에 연락하고 싶거나 다른 언어로 된 문서를 검토하려면 연락처 정보와 함께 요청서를 clk@shorelinewa.gov 로 제출하거나 206-801-2700번으로 전화해 주십시오.

CONTACT US:

Lea Bonebrake, P.E., City of Shoreline, Project Manager
lbonebrake@shorelinewa.gov | 206-801-2475

For additional project information, visit shorelinewa.gov/148thbridge

Nếu quý vị muốn liên hệ với Thành phố Shoreline hoặc đọc tài liệu bằng ngôn ngữ khác, vui lòng gửi yêu cầu cùng với thông tin liên hệ tới địa chỉ clk@shorelinewa.gov hoặc gọi 206-801-2700.

Kung gusto mong makipag-usap sa Lungsod ng Shoreline o surin ang isang dokumento sa ibang wika, pakipadala ang iyong kahilingan kasama ng iyong impormasyon sa [pakikipag-ugnayan sa clk@shorelinewa.gov](mailto:clk@shorelinewa.gov) o tumawag sa 206-801-2700.

የሻርሊን ከተማ ጋር ለመገናኘት ከፈለጉ ወይም ለሰነድ ስነ ምግባር ለመመልከት ከፈለጉ ጥያቄዎን ከመገኛ መረጃዎ ጋር በማድረግ በ clk@shorelinewa.gov ላይ ሊያደራጁ ይችላሉ ወይም በ 206-801-2700 ላይ ስለክ ይደውሉ።

ምስ ከተማ ሻርሊን ከትዘራረቡ ወይ ድማ ስነዳትኩም ብከልላ ቋንቋ ከተገምግሙ ምስ ስነዳድ፡ ጠለባትኩም ምስክናይ ናይ መርከቢ ሓበሬታኹም ናብ clk@shorelinewa.gov ስደዱ ወይ ድማ ብጃጽ 206-801-2700 ደውሉ።

SHARE THIS WEBSITE:



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N 148th Street Non-Motorized Bridge

A ped/bike bridge connecting people to neighborhoods and regional transit

[HOME](#)[PROJECT
OVERVIEW](#)[SCHEDULE](#)[BRIDGE](#)[WEST TRAIL
CONNECTION](#)[EAST BRIDGE
LANDING](#)[GIVE MORE
FEEDBACK](#)[WHAT'S
NEXT?](#)**ONLINE OPEN HOUSE**

Project Overview

Need and Benefits

The N 148th Street Non-Motorized Bridge will address several community needs, both current and future, and provide many benefits, including:

TRANSPORTATION OPTIONS FOR A CHANGING NEIGHBORHOOD. In 2016, the City developed the 145th Street Station Subarea Plan to address future land use and transportation needs near the new light rail and transit station. As the area changes, the bridge will help serve residents, business owners, retail customers, and commuters. The bridge is part of the City of Shoreline's greater planning efforts for the N 145th Street corridor and new Sound Transit light rail station. You can learn more about other related projects in the area by visiting the [Destination 2024 website](#).

LINK LIGHT RAIL ACCESS. By 2024, the Shoreline South/145th Station will open, bringing light rail and increased bus rapid transit service to Shoreline. Of Shoreline residents who work, more than 80% travel outside of the city to reach their places of employment, with almost two-thirds commuting to Seattle. Traffic in the station area is projected to increase by more than 25%.

IMPROVED SAFETY AND REDUCED TRAVEL TIMES. Paths that are separated from the road and designate space for pedestrians and bicyclists increase safety and help reduce the risk of collisions with motor vehicles.

Shoreline is currently divided by a nine-lane interstate (I-5). A new bridge will make it easier to travel through Shoreline and decrease travel times by at least ten minutes for those walking and biking in the area. The new bridge will also improve bike routes to the Interurban Trail, the future Trail along the Rail, the existing Burke-Gilman Trail, and potential future regional bicycle networks.

Location

The new bridge will go across Interstate 5 (I-5) at N 148th Street. The project consists of three main parts: the bridge span over I-5, West Trail Connection, and East Bridge Landing.



[Click here to enlarge.](#)



Projected Cost

Design	\$2.8–3.8 million
Right-of-Way	\$1.5–2.1 million
Construction	\$18.1–24.9 million
TOTAL PROJECT COST	\$23–30.2 million

The City has secured \$10 million in federal, regional, and county funding. With a total project cost currently estimated at \$23–30.2 million (costs will be further refined during the design process), the City continues to actively seek funding to complete construction.

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CONTACT US:

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For additional project information, visit shorelinewa.gov/148thbridge

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N 148th Street Non-Motorized Bridge

A ped/bike bridge connecting people to neighborhoods and regional transit

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ONLINE OPEN HOUSE

Schedule

The design phase of the project started in 2019 and will continue through 2021. Community members will have an opportunity to provide input through both in-person and online open houses during design and environmental review throughout 2020. Construction is scheduled to begin in 2022 and to be complete in 2023 before the new light rail station opens.

	Design/Environmental Review 2019–2021			Right-of-Way 2021–2022	Construction 2022–2023
	Alternative Evaluation	Preferred Alternative Selection	30% Design Completion		
	September 2019– June 2020	Summer 2020	Summer/Fall 2020		
	DECEMBER–MARCH Property owner briefings	Property owner briefings	Property owner briefings		
	Community briefings and presentations	Community briefings and presentations	Possible community briefings and presentations		
Feasibility Study 2017 <i>Completed</i>	APRIL Online open house, survey, and presentation	Online and in-person open house	Possible online and in-person open house		

Research and Planning

In 2016 and 2017, the City of Shoreline did a study to evaluate and recommend options for linking the communities on the west side of I-5 to the future Sound Transit Shoreline South/145th Station. City of Shoreline staff, Shoreline City Council, and consulting engineers evaluated five options. Public comment was provided at Shoreline City Council meetings.

The City estimated the location at N 148th Street would cost the least to construct, likely draw the most users, and of the routes possible, provide the shortest and most direct access to the Shoreline South/145th Station. The City also reviewed WSDOT and Sound Transit regulations in order to address safety needs around and across I-5. Shoreline City Council approved this location in February 2017.

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Bridge

The bridge will carry pedestrians and bicyclists across I-5 between the Parkwood neighborhood on the west side and the new Shoreline South/N 148th Station on the east. The bridge will be wide enough for pedestrians and bicyclists and built to comply with Americans with Disabilities Act (ADA) standards. All bridge options will be designed to the same safety standards and include pedestrian/bicycle railings, lighting, and screening (throw barrier) to protect drivers on the interstate below from falling objects.

Option 1: Combined Arch Bridge



[Click here to enlarge.](#)

- **DESIGN:** The combined arch bridge would have a major arch over I-5 and smaller arch on the short connection to the trail on the west side of the bridge.
- **SIZE:** The arches would have steel support pieces overhead and vertical support pieces that could be cable or steel.
- **SAFETY:** The throw barrier would be attached to the inside of the vertical support pieces to prevent things from falling onto the interstate below.

Option 2: Tied Arch Bridge



[Click here to enlarge.](#)

- **DESIGN:** The tied arch bridge would have two side-by-side arches tied toward each other with attached supporting cables.
- **SIZE:** The higher arch and slender cables would create more space and light than the other bridge options.
- **SAFETY:** The throw barrier could be attached on either side of the cables to prevent things from falling onto the interstate below.

Option 3: Truss Bridge



[Click here to enlarge.](#)

- **DESIGN:** A truss bridge has connected pieces that form a triangle or "truss."
- **SIZE:** Compared to the other bridge types, the truss bridge would be slightly shorter at its highest point, have more structural pieces overhead, and the outside supports would be wider.
- **SAFETY:** The throw barrier would be attached to the inside of the trusses to prevent things from falling onto the interstate below.

Are you on a shared or public computer? If you see someone else's survey responses, click on the reset button to start your own survey.

[RESET](#)

Share your thoughts on bridge design options:

Option 1: Combined Arch Bridge

What do you like about this option? **SELECT ALL THAT APPLY.**

- ☐ Size
- ☐ Overall look and design
- ☐ Other **WRITE IN:**

What do you dislike about this option? **SELECT ALL THAT APPLY.**

- ☐ Size
- ☐ Overall look and design
- ☐ Other **WRITE IN:**

Option 2: Tied Arch Bridge

What do you like about this option? **SELECT ALL THAT APPLY.**

- ☐ Size
- ☐ Overall look and design
- ☐ Other **WRITE IN:**

What do you dislike about this option? **SELECT ALL THAT APPLY.**

- ☐ Size
- ☐ Overall look and design
- ☐ Other **WRITE IN:**

Option 3: Truss Bridge

What do you like about this option? **SELECT ALL THAT APPLY.**

- ☐ Size
- ☐ Overall look and design
- ☐ Other **WRITE IN:**

What do you dislike about this option? **SELECT ALL THAT APPLY.**

- ☐ Size
- ☐ Overall look and design
- ☐ Other **WRITE IN:**

Summary

Which bridge option do you prefer?

- ☐ Option 1: Combined Arch Bridge
- ☐ Option 2: Tied Arch Bridge
- ☐ Option 3: Truss Bridge

Is there anything you think we should consider while evaluating these bridge options?

[SUBMIT](#)

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West Trail Connection

The western ramp and approach to the bridge will be on the west side of I-5 in the Parkwood neighborhood. The project team is working with immediate neighborhoods, including three places of worship, to identify their priorities and ensure that the design and construction of the bridge will limit disruption. With all options, the City aims to preserve existing mature trees in the project area, wherever possible.

Option 1: Minimal Build-Out

OVERHEAD VIEW



KEY

- A** 1ST AVENUE NE: Improvements to 1st Avenue NE might be built as a separate future project.
- B** BICYCLES: Bicycles will share the parking lot with vehicles and then connect to the bridge.
- C** TRAIL: Trail will be an 8-foot-wide pedestrian sidewalk between 1st Avenue NE and the bridge and will include lighting.
- D** PARKING: Parking in church lots will not change.

[Click here to enlarge overhead view.](#)

TYPICAL CROSS-SECTION

Looking west towards 1st Avenue NE



[Click here to enlarge cross-section.](#)

Option 2: Full Build-Out

OVERHEAD VIEW



KEY

- A** 1ST AVENUE NE: Improvements to 1st Avenue NE might be built as a separate future project.
- B** BICYCLES: Bicycles will share the trail with pedestrians.
- C** TRAIL: Pedestrians and bicycles will use a 16-foot shared path that connects to the bridge with a landscaping border and lighting between the path and church properties. This option means the City would have to access additional property from the adjacent churches.
- D** PARKING: In order to create a wider trail, some parking spaces may be removed. The City is looking at options for where to relocate parking on the west side of the bridge.

[Click here to enlarge overhead view.](#)

TYPICAL CROSS-SECTION

Looking west towards 1st Avenue NE



[Click here to enlarge cross-section.](#)

Are you on a shared or public computer? If you are someone else's survey responses, click on the reset button to start your own survey.

RESET

Share your thoughts on the West Trail Connection design:

Option 1: Minimal Build-Out

What do you like about this option? **SELECT ALL THAT APPLY.**

- ☐ Trail design
- ☐ Separation between bicyclists and pedestrians
- ☐ Parking options
- ☐ Other

What do you dislike about this option? **SELECT ALL THAT APPLY.**

- ☐ Trail design
- ☐ Separation between bicyclists and pedestrians
- ☐ Parking options
- ☐ Other

Option 2: Full Build-Out

What do you like about this option? **SELECT ALL THAT APPLY.**

- ☐ Trail design
- ☐ Shared bicycle and pedestrian path
- ☐ Parking options
- ☐ Other

What do you dislike about this option? **SELECT ALL THAT APPLY.**

- ☐ Trail design
- ☐ Shared bicycle and pedestrian path
- ☐ Parking options
- ☐ Other

Summary

Which West Trail Connection option do you prefer?

- ☐ Option 1: Minimal Build-Out
- ☐ Option 2: Full Build-Out

Is there anything you think we should consider while evaluating these options for the West Trail Connection?

SUBMIT

Please make sure to click on the submit button before you leave the page.

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ONLINE OPEN HOUSE

East Bridge Landing

The East Bridge Landing, on the east side of I-5, will take travelers to the future South Shoreline/N 148th Station where they can hop on Sound Transit light rail or buses or connect with the future Trail Along the Rail by foot or bicycle. The Sound Transit station will include bicycle parking. All design options will include:

- A bridge and ramp that will cross under the Sound Transit light rail tracks.
- Compliance with Americans with Disabilities Act (ADA) standards.
- A permanent noise wall below the bridge adjacent to the freeway.
- Connections to the Trail Along the Rail.
- All outdoor pathways, ramps, and stairs around the station will have lighting.
- Sound Transit light rail parking garage will provide space for 500 vehicles.

Option 1: A-Frame Ramp



- KEY**
- A** Ramp: This ramp option has an angular shape and a steeper slope than the other options (average grade of 6.5% down to the station).
 - B** Stairs: People can also take stairs down to the station.
 - C** Sound Transit light rail tracks will run above the ramp and stairs to the station. At its lowest point, the clearance between the bridge and light rail tracks is approximately 8 feet.

[Click here to enlarge.](#)

Option 2: Switchback Ramp



- KEY**
- A** Ramp: A switchback allows for a more gradual ramp (approximately 4% grade) down to the station.
 - B** Stairs: People can also take stairs down to the station.
 - C** Sound Transit light rail tracks will run above the ramp and stairs to the station. At its lowest point, the clearance between the bridge and light rail tracks is slightly over 9 feet.

[Click here to enlarge.](#)

Option 3: Direct Ramp



- KEY**
- A** Ramp: This ramp offers direct connections to both the station and adjacent Trail Along the Rail. The ramp is also less steep (4% grade) than Option 1. This design doesn't require stairs to the station.
 - B** Sound Transit light rail tracks will run above the ramp to the station. At its lowest point, the clearance between the bridge and light rail tracks is between 8.5 and 9 feet.

[Click here to enlarge.](#)

Are you on a shared or public computer? If you see someone else's survey responses, click on the text below to start your own survey.

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Share your thoughts on the East Bridge Landing design:

Option 1: A-Frame Ramp

What do you like about this option? [SELECT ALL THAT APPLY](#)

- ☐ Ramp layout
- ☐ Height clearance from Sound Transit tracks
- ☐ Connection to light rail station
- ☐ Connection to Trail Along the Rail
- ☐ Pedestrian and bicycle pathways
- ☐ Stair access to station
- ☐ Other

What do you dislike about this option? [SELECT ALL THAT APPLY](#)

- ☐ Ramp layout
- ☐ Height clearance from Sound Transit tracks
- ☐ Connection to light rail station
- ☐ Connection to Trail Along the Rail
- ☐ Pedestrian and bicycle pathways
- ☐ Stair access to station
- ☐ Other

Option 2: Switchback Ramp

What do you like about this option? [SELECT ALL THAT APPLY](#)

- ☐ Ramp layout
- ☐ Height clearance from Sound Transit tracks
- ☐ Connection to light rail station
- ☐ Connection to Trail Along the Rail
- ☐ Pedestrian and bicycle pathways
- ☐ Stair access to station
- ☐ Other

What do you dislike about this option? [SELECT ALL THAT APPLY](#)

- ☐ Ramp layout
- ☐ Height clearance from Sound Transit tracks
- ☐ Connection to light rail station
- ☐ Connection to Trail Along the Rail
- ☐ Pedestrian and bicycle pathways
- ☐ Stair access to station
- ☐ Other

Option 3: Direct Ramp

What do you like about this option? [SELECT ALL THAT APPLY](#)

- ☐ Ramp layout
- ☐ Height clearance from Sound Transit tracks
- ☐ Connection to light rail station
- ☐ Connection to Trail Along the Rail
- ☐ Pedestrian and bicycle pathways
- ☐ No stair access to station
- ☐ Other

What do you dislike about this option? [SELECT ALL THAT APPLY](#)

- ☐ Ramp layout
- ☐ Height clearance from Sound Transit tracks
- ☐ Connection to light rail station
- ☐ Connection to Trail Along the Rail
- ☐ Pedestrian and bicycle pathways
- ☐ No stair access to station
- ☐ Other

Summary

Which East Bridge Landing option do you prefer?

- ☐ Option 1: A-Frame Ramp
- ☐ Option 2: Switchback Ramp
- ☐ Option 3: Direct Ramp

Is there anything you think we should consider while evaluating these options for the East Bridge Landing?

[SUBMIT](#)

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ONLINE OPEN HOUSE

Give More Feedback

Public input will be essential to the design of the bridge and how the ramps or approaches will look, function, and integrate into the communities on both sides of I-5. Community members will have several opportunities to give feedback throughout the design process. We want to be sure that the bridge design and planning effort addresses your priorities, while also meeting the technical needs of the project.

Are you on a shared or public computer? If you see someone else's survey responses, click on the reset button to start your own survey.

[RESET](#)

Your Feedback

Do you plan to use the new N 148th Street Non-Motorized Bridge?

- ☐ Yes
- ☐ No
- ☐ I'm not sure yet

If you do plan to use the bridge, what modes of travel do you plan to use? *SELECT ALL THAT APPLY.*

- ☐ Walking
- ☐ Bicycling
- ☐ Other recreational wheels such as scooters or skateboards
- ☐ Wheelchair or other assisted mode of travel
- ☐ Other *WRITE IN:*

If you do plan to use the bridge, what will be the purpose of your travel? *SELECT ALL THAT APPLY.*

- ☐ To connect to light rail at the South Shoreline/N 145th Station
- ☐ To connect to buses at or near the South Shoreline/N 145th Station
- ☐ To access other neighborhoods on the west or east side of I-5
- ☐ To connect to biking or walking trails
- ☐ Other *WRITE IN:*

Please select the top three criteria that are most important to you for this project. *YOUR FEEDBACK WILL HELP OUR PROJECT TEAM AS WE EVALUATE EACH DESIGN OPTION.*

- ☐ Maintain safe environment for community
- ☐ Maintain existing parking options
- ☐ Minimize impacts to neighboring properties
- ☐ Manage project costs
- ☐ Minimize construction impacts
- ☐ Protect mature trees
- ☐ Improve pedestrian travel (e.g., sidewalks, crosswalks)
- ☐ Improve bicycle travel
- ☐ Shorten travel time to light rail station/transit center
- ☐ Visual design and overall look
- ☐ Limit city acquisition of private property

Please tell us a little bit more about yourself so that we can understand how inclusive our community outreach has been.

What is your ZIP code?

- 98133
- 98155
- 98160
- 98177
- ☐ Other *WRITE IN:*

What is your age?

- ☐ 19 or younger
- ☐ 20-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65 or older
- ☐ I'd rather not say

What is your race/ethnicity? *SELECT ALL THAT APPLY.*

- ☐ African American or Black
- ☐ American Indian or Alaska Native
- ☐ Asian or Pacific Islander
- ☐ Biracial/multiracial
- ☐ Hispanic, Spanish, or Latino
- ☐ Northern African/Middle Eastern
- ☐ White/Caucasian
- ☐ Optional self-identification *WRITE IN:*
- ☐ I'd rather not say

What is the primary language spoken in your home?

- ☐ Amharic/Tigrinya
- ☐ English
- ☐ Korean
- ☐ Mandarin/Cantonese
- ☐ Spanish
- ☐ Tagalog
- ☐ Vietnamese
- ☐ Other *WRITE IN:*

What gender do you identify as?

- ☐ Female
- ☐ Male
- ☐ Non-binary
- ☐ Optional self-identification *WRITE IN:*
- ☐ I'd rather not say

Do you have a disability? *SELECT ALL THAT APPLY.*

- ☐ Cognitive
- ☐ Hearing
- ☐ Mobility
- ☐ None
- ☐ Vision
- ☐ Optional self-identification *WRITE IN:*
- ☐ I'd rather not say

What is your current housing situation?

- ☐ Rent
- ☐ Own
- ☐ Stay with friends or family
- ☐ Without housing
- ☐ Other *WRITE IN:*
- ☐ I'd rather not say

How did you learn about this project? *SELECT ALL THAT APPLY.*

- ☐ City of Shoreline email/website
- ☐ News
- ☐ Social media
- ☐ Friend
- ☐ My employer
- ☐ An organization I'm involved with
- ☐ Other *WRITE IN:*
- ☐ I'd rather not say

What is the best way to stay in touch with you about this project? *SELECT ALL THAT APPLY.*

- ☐ Email
- ☐ Social media
- ☐ Community meetings and open houses
- ☐ Mail
- ☐ Other *WRITE IN:*

Is there anything else you would like to share about the N 148th Non-Motorized Bridge Project?

[SUBMIT](#)

Please make sure to click on the submit button before you leave the page.

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ONLINE OPEN HOUSE

What's Next?

How to Stay Involved

THANK YOU FOR VISITING THE ONLINE OPEN HOUSE AND GIVING FEEDBACK.

Along with technical research and evaluations, your feedback will help the City design the bridge for the community. We will report back what we heard from the public through community meetings and online open houses throughout 2020.

LEARN MORE ABOUT THIS PROJECT on the [N 148th Street Non-Motorized Bridge website](#).

Destination 2024

The N 148th Non-Motorized Bridge is one of eight Destination 2024 projects led by the City of Shoreline.

In preparation for two new Sound Transit light rail stations in Shoreline, we have been planning for changes that will come with these new facilities. The City Council has increased zoning densities around the two future stations (Shoreline South/145th and Shoreline North/185th) so that new housing and development can be focused around transit. To support future development, the City is also planning for transportation improvements to help get people to light rail and around the station areas.

Learn more about the other projects below or visit the [Destination 2024 website](#) and check out our new interactive map.

- [145th Corridor Project \(I-5 to Aurora\)](#)
- [145th/I-5 Interchange Project](#)
- [1st Avenue NE Sidewalks \(145th to 155th Streets\)](#)
- [5th Avenue Rechannellization](#)
- [Off-Corridor Bike Network](#)
- [SR 522/523 BRT Project \(Bothell/Lake City Way and 145th Street Bus Rapid Transit\)](#)
- [Trail Along the Rail](#)

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N 148번가 차 없는 다리

사람들을 주변 지역 및 지역 대중교통과 연결하는 보행자/자전거 전용 다리

홈

프로젝트 개요

일정

다리

서쪽 트레일 연결부

다리 동쪽 진출입부

추가 의견 제공

함후 계획?

온라인 오픈 하우스

N 148번가 차 없는 다리(N 148th Street Non-Motorized Bridge)의 온라인 오픈 하우스에 오신 것을 환영합니다!

쇼어라인이 변화 및 성장을 거듭하고 있습니다. 사운드 트랜짓(Sound Transit) 경전철의 개통, 경전철 및 버스 환승을 위한 새로운 쇼어라인 사우스/145번가 역(Shoreline South/145th Station)의 건설 및 기타 발전과 함께 주민들은 이런 증가하는 서비스 및 시설과 확장되는 보행자 및 자전거 네트워크로 연결되는 새로운 방법이 필요해졌습니다.

이런 요구 사항을 충족시키기 위해 쇼어라인 시는 N 148번가에 주간 고속도로 5(I-5) 위를 지나는 새로운 보행자 및 자전거용 육교를 건설할 계획입니다. N 148번가 차 없는 다리는 모든 사람들의 안전을 향상시키고, 쇼어라인에서 I-5의 동쪽과 서쪽을 건너자 자전거를 타고 이동하는 사람들의 이동 시간을 단축시킬 것입니다.

이 온라인 오픈 하우스의 목적은 시민들에게 다음과 같은 기회를 제공하는 것입니다.

- 이 프로젝트에 대해 자세히 알아봅니다.
- 시민 여러분에게 중요한 정보를 공유하고, 이 프로젝트의 주요 부분에 대한 의견을 제공합니다.

이 온라인 오픈 하우스를 이용하는 방법

- 이 오픈 하우스를 이용하려면 아래로 스크롤하여 각 페이지를 읽은 후 페이지 하단에 있는 "다음 페이지" 버튼을 클릭하거나 상단에서 원하는 탭을 선택하십시오.
- 이 온라인 오픈 하우스 내에서 질문을 받고 의견을 제공할 수 있습니다. 이 온라인 오픈 하우스 및 설문지를 완료하는 데는 몇 분 밖에 걸리지 않습니다.

참여해 주셔서 감사합니다!

웹비나에 참석하세요

이 라이브 온라인 프리젠테이션 실행 시간:

**2020년 4월 23일 목요일
12:00-1:00(오후)**

등록하려면 [여기를 클릭하십시오.](#)

계속 관심을 가져 주세요.

N 145번가에서 진행되는 이 프로젝트와 기타 프로젝트에 대한 업데이트 및 참여 기회를 원하시면 신청하십시오.

이름

성

이메일 *

* 이메일이 필요합니다.

제출

> 다음 페이지로 이동

연락하기:

쇼어라인 시와 통신을 교환하거나 다른 언어로 된 문서를 보시려면 귀하의 연락처 정보와 함께 clk@shorelinewa.gov로 요청하거나 206-801-2700번으로 전화해 주십시오.

Lea Bonebrake, P.E., 쇼어라인 프로젝트 매니저
lbonebrake@shorelinewa.gov | 206-801-2475

For additional project information, visit shorelinewa.gov/148thbridge

이 웹사이트 공유:



저희를 팔로우하세요:



N 148번가 차 없는 다리

사람들을 주변 지역 및 지역 대중교통과 연결하는 보행자/자전거 전용 다리

홈 프로젝트 개요 일정 다리 서쪽 트레일 연결부 다리 동쪽 진출입부 추가 의견 제공 향후 계획?

온라인 오픈 하우스

프로젝트 개요

필요성과 혜택

N 148번가 차 없는 다리는 현재와 미래에 지역사회의 여러 가지 요구 사항을 해결하고, 다음을 포함한 많은 혜택을 제공할 것입니다.

변화하는 인근 지역을 위한 교통 옵션.

2016년에 시는 새로운 경전철 및 환승역 인근의 향후 토지 이용 및 교통 요구 사항을 해결하기 위해 145번가 전철역 구역 계획을 수립했습니다. 이 지역이 변화함에 따라 이 다리는 주민, 사업자, 소매 고객 및 통근 직장 인들이 이용하게 될 것입니다. 이 다리는 N 145번가 지역과 새로운 사운드 트랜짓 경전철역을 위한 쇼어라인 시의 보다 큰 계획의 일부입니다. 이 지역의 다른 관련 프로젝트에 대한 자세한 내용은

[Destination 2024 웹 사이트를 방문하십시오.](#)

링크 경전철 이용법에서 확인할 수 있습니다

2024년이 되면 쇼어라인 사우스/145번가 역이 개통하여 쇼어라인에 경전철이 들어오고 쇼어라인으로의 빠른 버스 환승 서비스가 제공될 것입니다. 직장에 다니는 쇼어라인 시민 중 80% 이상이 직장에 가기 위해 도시 밖으로 나가며, 거의 2/3가 시애틀로 통근합니다. 역 인근의 교통량이 25% 이상 증가할 것으로 예상됩니다.

안전 항상 및 이동 시간 단축.

도로와 분리된 통행로 및 보행자와 자전거 이용자를 위한 지정 공간은 안전을 높이고 자동차와의 충돌 위험을 줄이는 데 도움이 됩니다.

쇼어라인은 현재 9차선 주간 고속도로 5(I-5)로 나뉘어 있습니다. 새로운 다리가 놓이면 쇼어라인을 보다 쉽게 통과할 수 있을 것이며, 이 지역에서 건너나 자전거를 이용하는 사람들의 이동 시간이 최소 10분 이상 단축될 것입니다. 이 새로운 다리는 또한 인터어번 트레일(Interurban Trail), 미래의 트레일 얼롱 더 레일(Trail along the Rail), 기존의 버크-길먼 트레일(Burke-Gilman Trail) 및 잠재적인 미래의 지역 자전거 네트워크로 이어지는 자전거 노선도 개선할 것입니다.

위치

새로운 다리는 N 148번가에서 주간 고속도로 5(I-5)를 가로지르게 됩니다. 이 프로젝트는 I-5의 위를 지나는 교량 경간, 서쪽 트레일 연결부(West Trail Connection) 및 다리 동쪽 진출입부(East Bridge Landing) 등 3개 주요 부분으로 구성됩니다.



[확대하려면 여기를 클릭하십시오.](#)



예산 비용

설계	\$2.8-3.8 million
허가 취득 및 부지 확보	\$1.5-2.1 million
건설	\$18.1-24.9 million
총 프로젝트 비용	\$23-30.2 million

시는 연방, 지역 및 카운티 자금으로 1천만 달러를 확보했습니다. 총 프로젝트 비용은 현재 2,300-3,020만 달러로 추산되었으며(설계 과정에서 비용이 추가로 조정될 것임), 시는 공사를 완료하기 위해 계속해서 적극적으로 자금을 확보하고 있습니다.

> 다음 페이지로 이동

< 이전 페이지로 이동

연락하기:

쇼어라인 시와 통신을 교환하거나 다른 언어로 된 문서를 보시려면 귀하의 연락처 정보와 함께 clk@shorelinewa.gov로 요청하거나 206-801-2700번으로 전화해 주십시오.

Lea Bonebrake, P.E., 쇼어라인 프로젝트 매니저
lbonebrake@shorelinewa.gov | 206-801-2475

For additional project information, visit shorelinewa.gov/148thbridge

이 웹사이트 공유:



지침을 팔로워하세요:



N 148번가 차 없는 다리

사람들을 주변 지역 및 지역 대중교통과 연결하는 보행자/자전거 전용 다리

홈 프로젝트 개요 일정 다리 서쪽 트레일 연결부 다리 동쪽 진출입부 추가 의견 제공 향후 계획?

온라인 오픈 하우스

일정

이 프로젝트의 설계 단계는 2019년에 시작되어 2021년까지 계속될 것입니다. 주민들은 2020년에 실시될 설계 및 환경 영향 평가 중에 오프라인 및 온라인 오픈 하우스를 통해 의견을 제공할 수 있는 기회를 갖게 될 것입니다. 공사는 2022년에 시작되어 2023년에 새로운 경전철역이 개통되기 전에 완료될 예정입니다.

타당성 조사 2017년 완료됨	설계/환경 영향 평가 2019-2021년			허가 취득 및 부지 확보 2021-2022년	건설 2022-2023
	방안 평가	선호되는 방안 선택	30% 설계 완료		
	2019년 9월 - 2020년 6월	2020년 여름	2020년 여름/가을		
	12월 - 3월 부지 소유주 브리핑	부지 소유주 브리핑	부지 소유주 브리핑		
	지역사회 브리핑 및 프레젠테이션	지역사회 브리핑 및 프레젠테이션	지역사회 브리핑 및 프레젠테이션(미정)		
	4월 온라인 오픈 하우스, 설문 조사 및 프레젠테이션	온라인 및 오프라인 오픈 하우스	온라인 및 오프라인 오픈 하우스(미정)		

연구 및 계획 수립

2016년과 2017년에 쇼어라인 시는 I-5 서쪽 지역을 미래의 사운드 트랜짓 쇼어라인 사우스/145번가 역과 연결하기 위한 옵션들을 평가하고 제안하는 연구를 수행했습니다. 쇼어라인 시 직원, 쇼어라인 시의회 및 컨설팅 엔지니어들이 5가지 옵션을 평가했습니다. 쇼어라인 시의회에서 주민 의견 청취가 실시되었습니다.

시는 N 148번가 역의 위치가 건설 비용이 가장 적게 들며, 가장 많은 이용자가 이용할 수 있고, 가능한 경로를 중에서 쇼어라인 사우스/145번가 역까지 가장 짧고 직접적인 접근로를 제공할 것으로 예상했습니다. 시는 또한 I-5 주변에서의 안전 요구 사항을 해결하기 위해 WSDOT 및 사운드 트랜짓 규정도 검토했습니다. 쇼어라인 시의회는 2017년 2월에 이 위치를 승인했습니다.

> 다음 페이지로 이동

< 이전 페이지로 이동

연락하기:

쇼어라인 시와 통신을 교환하거나 다른 언어로 된 문서를 보시려면 귀하의 연락처 정보와 함께 clk@shorelinewa.gov로 요청하거나 206-801-2700번으로 전화해 주십시오.

Lee Bonebrake, P.E., 쇼어라인 프로젝트 매니저
lbonebrake@shorelinewa.gov | 206-801-2475

For additional project information, visit shorelinewa.gov/148thbridge

이 웹사이트 공유:



저희를 팔로잉하세요:



N 148번가 차 없는 다리

사람들을 주변 지역 및 지역 대중교통과 연결하는 보행자/자전거 전용 다리

홈 프로젝트 개요 일함 다리 서쪽 트레일 연결부 다리 동쪽 진출입부 추가 의견 제출 설문 계획?

온라인 오픈 하우스

다리

이 다리는 서쪽의 디크우드(Parkwood) 지역과 동쪽의 새로운 소아리인 사우스 N 148번가 역 사이에 있는 I-5를 가로질러서 보행자와 자전거 이용자를 이동시킬 것입니다. 다리는 보행자와 자전거 이용자들을 수용할 수 있도록 충분히 넓을 것이며, ADA(미국 장애인법) 표준을 준수하여 건설될 것입니다. 모든 교량 옵션들은 동일한 안전 표준에 따라 설계되며, 보행자/자전거 레일, 조명 및 아래의 고속도로를 이용하는 운전자들을 낮아줄로부터 보호하기 위한 방벽 난간(투기 방지책)이 설치될 것입니다.

옵션 1: 복합 아치교



확대하려면 여기를 클릭하십시오

- 설계:** 복합 아치교는 I-5 위에 놓이는 주 아치와 다리 서쪽의 트레일과 연결되는 짧은 연결로에 놓이는 보다 작은 아치로 이루어집니다.
- 크기:** 아치에는 상공에 감칠 지지부가 있고, 케이폴 또는 강철로 된 수직 지지부가 있습니다.
- 단면:** 물간이 아래의 주간 고속도로에 떨어지는 것을 방지하기 위해 방벽 난간이 수직 지지부의 내부에 설치됩니다.

옵션 2: 결합 아치교



확대하려면 여기를 클릭하십시오

- 설계:** 결합 아치교에서는 2개의 아치교가 서로를 향해 기울어진 형태로 나란히 설치되고 지지 케이블이 연결됩니다.
- 크기:** 보다 높은 아치와 가느다란 케이블은 다른 교량 옵션들보다 더 많은 공간과 조망을 제공할 것입니다.
- 단면:** 물간이 아래의 주간 고속도로에 떨어지는 것을 방지하기 위해 케이블 양쪽에 방벽 난간이 설치될 수 있습니다.

옵션 3: 트러스교



확대하려면 여기를 클릭하십시오

- 설계:** 트러스교는 삼각형의 "트러스"를 형성하는 연결 부분들로 이루어집니다.
- 크기:** 다른 교량에 비해 트러스교는 가장 높은 지점에서 약간 짧고, 구조적 부분들이 더 많으며, 외부 지지대가 더 많습니다.
- 단면:** 물간이 아래의 주간 고속도로에 떨어지는 것을 방지하기 위해 트러스 내부에 방벽 난간이 설치됩니다.

공유 또는 공공 컴퓨터를 사용하고 계십니까? 다른 사람의 설문조사 응답을 보고 있다면 개인적 정보를 클릭하여 자신의 설문조사를 시작하십시오

계속

다리 설계 옵션에 대한 귀하의 의견을 공유해 주십시오.

옵션 1: 복합 아치교

이 옵션에서 만족스러운 점은 무엇입니까? **4/5** 이는 모든 것을 고려하십시오

- ☐ 크기
- ☐ 전체적인 외형과 설계
- ☐ 기타 **4/5**

이 옵션에서 불만스러운 점은 무엇입니까? **4/5** 이는 모든 것을 고려하십시오

- ☐ 크기
- ☐ 전체적인 외형과 설계
- ☐ 기타 **4/5**

옵션 2: 결합 아치교

이 옵션에서 만족스러운 점은 무엇입니까? **4/5** 이는 모든 것을 고려하십시오

- ☐ 크기
- ☐ 전체적인 외형과 설계
- ☐ 기타 **4/5**

이 옵션에서 불만스러운 점은 무엇입니까? **4/5** 이는 모든 것을 고려하십시오

- ☐ 크기
- ☐ 전체적인 외형과 설계
- ☐ 기타 **4/5**

옵션 3: 트러스교

이 옵션에서 만족스러운 점은 무엇입니까? **4/5** 이는 모든 것을 고려하십시오

- ☐ 크기
- ☐ 전체적인 외형과 설계
- ☐ 기타 **4/5**

이 옵션에서 불만스러운 점은 무엇입니까? **4/5** 이는 모든 것을 고려하십시오

- ☐ 크기
- ☐ 전체적인 외형과 설계
- ☐ 기타 **4/5**

요약

귀하는 어떤 다리 옵션을 선호하십니까?

- ☐ 옵션 1: 복합 아치교
- ☐ 옵션 2: 결합 아치교
- ☐ 옵션 3: 트러스교

이 다리 옵션들을 평가할 때 시가 고려해야 할 사항이 있습니까?

계속

> 다음 페이지로 이동

< 이전 페이지로 이동

연락처:

소아리인 시와 통신을 교환하거나 다른 언어로 된 본서를 받으려면 귀하와 연락처 정보의 함께 city@shorelinewa.gov로 작성하거나 206.801.2700번으로 전화해 주십시오.

Lex Bonbrake, PE, 소아리인 프로젝트 관리자
Bonbrake@shorelinewa.gov | 206.801.2475

For additional project information, visit shorelinewa.gov/148bridge

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이 웹사이트를 공유:



처리를 완료했습니다:



9a-289

N 148번가 차 없는 다리

사람들을 주변 지역 및 지역 대중교통과 연결하는 보행자/자전거 전용 다리

프로젝트 개요 | 설명 | 다리 | 서쪽 트레일 연결부 | 다리 통행 전용일부 | 추가 의견 제공 | 향후 계획?

온라인 오픈 하우스

서쪽 트레일 연결부

서쪽 경사면과 다리 접근로는 15 서쪽의 마크우드 지역에 위치할 것입니다. 프로젝트 원은 3개의 종교 사물을 포함한 인접 지역과 합쳐서 그들의 우선적 요구 사항을 파악하고, 다리의 설계와 공사로 인한 불만을 최소화 할 것입니다. 모든 옵션에서 시는 가능한 트로트와 지역에 있는 성숙한 나무들을 보존하는 것을 목표로 합니다.

옵션 1: 최소 건설

조감도



기호 설명

- A** 1번 대로 NE: 1번 대로 NE의 개선은 아래에 별도 프로젝트로 실시될 수 있습니다.
- B** 자전거: 자전거는 주차장을 자동차와 공유하며, 이곳을 지나 다리로 갈 수 있습니다.
- C** 트레일: 트레일은 1번 대로 NE와 다리 사이에 8피트(약 2.4m) 폭으로 만들어지며 조명이 설치됩니다.
- D** 주차: 교차 부지에 주차하는 것은 바람직 않습니다.

조감도를 확대하려면 여기를 클릭하십시오.

일반적인 단면도

1번 대로 NE를 동쪽에서 바라본 모습



단면도를 확대하려면 여기를 클릭하십시오.

옵션 2: 전면 건설

조감도



기호 설명

- A** 1번 대로 NE: 1번 대로 NE의 개선은 아래에 별도 프로젝트로 실시될 수 있습니다.
- B** 자전거: 자전거는 보행자와 트레일을 공유합니다.
- C** 트레일: 보행자와 자전거는 다리와 연결되는 16피트(약 4.8m)의 곡률 통행로를 사용하며, 통행로와 교차 부지 사이에는 조경을 경계로 조명이 설치됩니다. 이 옵션은 시가 안전 교행통로 표시를 추가할 필요성이 있을 수 있습니다.
- D** 주차: 더 넓은 트레일을 만들기 위해 일부 주차 공간이 제거될 수 있습니다. 시는 다리 서쪽에 주차장을 재배치하는 옵션을 검토하고 있습니다.

조감도를 확대하려면 여기를 클릭하십시오.

일반적인 단면도

1번 대로 NE를 동쪽에서 바라본 모습



단면도를 확대하려면 여기를 클릭하십시오.

공유 또는 공공 용도를 사용하고 계십니까? 다른 사람과 공유하지 않습니까? 있다면 재설계 버튼을 클릭하여 자신의 원본주제를 시작하십시오.

계속

서쪽 트레일 연결부 설계에 대한 의견을 공유해 주십시오.

옵션 1: 최소 건설

이 옵션에서 만족스러운 점은 무엇입니까? 왜? 또는 모든 것을 고려하십시오.

트레일 설계
자전거 이용자와 보행자의 분리
주차 옵션
기타 의견

옵션 2: 전면 건설

이 옵션에서 만족스러운 점은 무엇입니까? 왜? 또는 모든 것을 고려하십시오.

트레일 설계
공유 자전거 및 보행자 도로
주차 옵션
기타 의견

요약

귀하는 어떤 서쪽 트레일 연결부 옵션을 선호하십니까?

옵션 1: 최소 건설
옵션 2: 전면 건설

서쪽 트레일 연결부에 대한 어떤 옵션들을 열거할 때 시가 고려해야 할 사항이 있습니까?

계속

> 다음 페이지로 이동
< 이전 페이지로 이동

연락처:

소셜미디어 사이트 동선을 교환하거나 다른 언어로 된 문서를 보시려면 귀하의 연락처 정보와 함께 info@shoreline.gov로 요청하거나 206-801-2792번으로 전화해 주십시오.

Lee Bonetake, P.E., 수석 엔지니어
Bonetake@shoreline.gov | 206-801-2475

For additional project information, visit shoreline.gov/148thbridge

이 웹사이트 공유:

[Facebook](#) [Twitter](#) [Email](#) [Print](#)

자료를 다운로드하세요:

[Facebook](#) [Twitter](#) [Email](#) [Print](#)

N 148번가 차 없는 다리

사람들을 주변 지역 및 지역 대중교통과 연결하는 보행자/자전거 전용 다리

홈 프로젝트 개요 팀 다리 서쪽 설계팀 안필부 다리 동쪽 진출입부 추가 지원 계획

온라인 오픈 하우스

다리 동쪽 진출입부:

I-5 동쪽에 위치한 다리 동쪽 진출입부는 미래의 시우스 쇼어라인(N 148번가) 역으로 사람들을 연결하며, 이곳에서 시우스 트랜짓 경전철 또는 버스에 오르거나 도보 또는 자전거를 이용하여 다리의 트레일 및 도로를 더 지을 수 있습니다. 시우스 트랜짓 역에는 자전거 주차장이 마련되어 있습니다. 모든 설계 옵션에는 다리가 포함되어 있습니다.

- 시우스 트랜짓 경전철 트랙 아래를 지나는 다리와 경사로.
- 미국 장애인법(ADA) 표준 준수.
- 고속도로에 인접한 다리 아래의 임구적 침묵벽.
- 트레일 및 도로 더 넓은 연결로.
- 역 주변의 모든 미의 보행로, 경사로 및 자전거는 조명이 설치됩니다.
- 시우스 트랜짓 경전철 주차장은 차량 500대의 주차 공간을 제공합니다.

옵션 1: A-프레임 헬프



- 기호 설명**
- A 경사로: 이 경사로는 각이 진 형태이며, 다른 옵션들보다 경사가 더 가파릅니다(각까지의 평균 경사도 6.5%).
 - B 계단: 사람들이 계단을 내려가서 역까지 갈 수도 있습니다.
 - C 시우스 트랜짓 경전철 트랙은 경사로와 계단 위를 지나서 역으로 연결됩니다. 가장 낮은 지점에서 다리와 경전철 트랙 사이의 간격은 약 2.4m입니다.

확대하려면 여기를 클릭하십시오.

옵션 2: 스위치백 헬프



- 기호 설명**
- A 경사로: 스위치백은 역까지 내려가는 보다 침착한 경사로(경사도 약 4%)를 제공합니다.
 - B 계단: 사람들이 계단을 내려가서 역까지 갈 수도 있습니다.
 - C 시우스 트랜짓 경전철 트랙은 경사로와 계단 위를 지나서 역으로 연결됩니다. 가장 낮은 지점에서 다리와 경전철 트랙 사이의 간격은 약 2.7m를 약간 넘습니다.

확대하려면 여기를 클릭하십시오.

옵션 3: 다이렉트 헬프



- 기호 설명**
- A 경사로: 이 경사로는 전철 및 인접한 트레일 둘둘 더 넓은 직접 연결입니다. 이 경사로는 옵션 1보다 덜 가파릅니다(경사도 4%). 이 설계에는 역으로 가는 계단이 필요하지 않습니다.
 - B 시우스 트랜짓 경전철 트랙은 이 경사로 위를 지나서 역으로 연결됩니다. 가장 낮은 지점에서 다리와 경전철 트랙 사이의 간격은 8.5 - 9피트(약 2.7m)입니다.

확대하려면 여기를 클릭하십시오.

다음은 옵션 1: A-프레임 헬프를 사용하고 각이 진 형태를 고려하십시오. 이 옵션은 사람들의 침묵벽을 통과하고 있다면 재배치 비용을 줄이며 자신의 침묵벽을 시작합니다.

4.8.8.8

다리 동쪽 진출입부의 설계에 대한 의견을 공유해 주십시오.

옵션 1: A-프레임 헬프

이 옵션에서 만족스러운 점은 무엇입니까? 왜? 다른 모든 것을 고려하십시오.

- 경사로 내치
- 시우스 트랜짓 트랙과의 간격(높이)
- 경전철역 연결로
- 트레일 및 도로 더 넓은 연결로
- 보행자 및 자전거 통행로
- 계단을 통해 역에 접근
- 기타 사항

이 옵션에서 불만스러운 점은 무엇입니까? 왜? 다른 모든 것을 고려하십시오.

- 경사로 내치
- 시우스 트랜짓 트랙과의 간격(높이)
- 경전철역 연결로
- 트레일 및 도로 더 넓은 연결로
- 보행자 및 자전거 통행로
- 계단을 통해 역에 접근
- 기타 사항

옵션 2: 스위치백 헬프

이 옵션에서 만족스러운 점은 무엇입니까? 왜? 다른 모든 것을 고려하십시오.

- 경사로 내치
- 시우스 트랜짓 트랙과의 간격(높이)
- 경전철역 연결로
- 트레일 및 도로 더 넓은 연결로
- 보행자 및 자전거 통행로
- 계단을 통해 역에 접근
- 기타 사항

이 옵션에서 불만스러운 점은 무엇입니까? 왜? 다른 모든 것을 고려하십시오.

- 경사로 내치
- 시우스 트랜짓 트랙과의 간격(높이)
- 경전철역 연결로
- 트레일 및 도로 더 넓은 연결로
- 보행자 및 자전거 통행로
- 계단을 통해 역에 접근
- 기타 사항

옵션 3: 다이렉트 헬프

이 옵션에서 만족스러운 점은 무엇입니까? 왜? 다른 모든 것을 고려하십시오.

- 경사로 내치
- 시우스 트랜짓 트랙과의 간격(높이)
- 경전철역 연결로
- 트레일 및 도로 더 넓은 연결로
- 보행자 및 자전거 통행로
- 역으로 가는 계단 없음
- 기타 사항

이 옵션에서 불만스러운 점은 무엇입니까? 왜? 다른 모든 것을 고려하십시오.

- 경사로 내치
- 시우스 트랜짓 트랙과의 간격(높이)
- 경전철역 연결로
- 트레일 및 도로 더 넓은 연결로
- 보행자 및 자전거 통행로
- 역으로 가는 계단 없음
- 기타 사항

요약

귀하는 어느 다리 동쪽 진출입부 옵션을 선호하십니까?

- 옵션 1: A-프레임 헬프
- 옵션 2: 스위치백 헬프
- 옵션 3: 다이렉트 헬프

다리 동쪽 진출입부에 대한 이런 옵션들을 평가할 때 시가 고려해야 할 사항이 있습니까?

여기

> 다음 페이지로 이동

< 이전 페이지로 이동

참조:

쇼어라인 지역 및 지역 대중교통과 연결하는 보행자/자전거 전용 다리

Lee Borenske, P.E., 쇼어라인 코오디네이터 | (206) 801-2475 | lborenske@shorelinewa.gov

For additional project information, visit shorelinewa.gov/148bridge

이 웹사이트를

이 웹사이트를

이 웹사이트를

이 웹사이트를

이 웹사이트를

이 웹사이트를

N 148번가 차 없는 다리

사람들을 주변 지역 및 지역 대중교통과 연결하는 보행자/자전거 전용 다리

프로젝트 개요 일정 다리 서쪽 트래일 연결부 다리 동쪽 진출입부 추가 의견 제공 향후 계획?

온라인 오픈 하우스

추가 의견 제공

다리 설계와 함께 경사로나 접근로의 유형 및 기능과 1-5 양쪽 지역으로의 통합 방식에 대한 주민 의견은 필수적입니다. 주민들은 설계 과정 중에 의견을 낼 수 있는 여러 번의 기회를 갖게 될 것입니다. 저희는 다리 설계 및 계획 수립에서 주민 여러분의 우선적 요구 사항을 해결하면서 프로젝트의 기술적 요구 사항도 충족시킬 수 있기를 바랍니다.

공유 또는 공공 컴퓨터를 사용하고 계십니까? 다른 사람의 설문조사 응답을 보고 있다면 재설정 버튼을 눌러서 자신의 설문조사를 시작하십시오.

작성됨

주민 의견

귀하는 새로운 N 148번가 차 없는 다리를 이용하시겠습니까?

- 예
- 아니요
- 아직 확실하지 않음

귀하가 이 다리를 이용하신다면 어떤 방법으로 이용하시겠습니까?
해당되는 모든 것을 고르십시오

- 걷기
- 자전거 타기
- 스쿠터 또는 스케이트 보드와 같은 기타 레저용 이동 수단
- 휠체어 또는 기타 보조 이동 수단
- 기타 직접 기입

귀하가 이 다리를 이용하신다면 어떤 목적으로 이용하시겠습니까?
해당되는 모든 것을 고르십시오

- 쇼어라인 사우스/N 145번가 역에서 경전철 이동
- 쇼어라인 사우스/N 145번가 역 또는 근처의 버스도 이동
- 1-5 서쪽 또는 동쪽의 다른 지역으로 이동
- 자전거 도로 또는 산책로 연결
- 기타 직접 기입

이 프로젝트에서 귀하에게 가장 중요한 3개 기준을 선택해 주십시오. 귀하의 의견은 시간이 지남에 따라 변경될 때 프로젝트 팀에 도움이 될 것입니다.

- 지역사회를 위한 안전한 환경 유지
- 기존 주차 옵션 유지
- 인근 지역에 대한 영향 최소화
- 프로젝트 비용 관리
- 건설 영향 최소화
- 상속한 나무 보호
- 보행자 이동 개선(예: 보도, 횡단보도)
- 자전거 이용 개선
- 경전철역/환승 센터까지의 이동 시간 단축
- 시각적 설계 및 전체적 외양
- 시의 사유 재산 취득 제한

시의 주민 의견 청취가 얼마나 포괄적이었는지 판단할 수 있도록 귀하에 대해 조금 더 자세히 알려주십시오

귀하의 우편번호는 무엇입니까?

- 98133
- 98155
- 98160
- 98177
- 기타 직접 기입

귀하의 나이가 어떻게 되십니까?

- 19세 이하
- 20-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65세 이상
- 밝히고 싶지 않음

귀하의 인종/민족은 무엇입니까? 해당되는 모든 것을 고르십시오.

- 아프리카계 미국인 또는 흑인
- 미예리칸 인디언 또는 알래스카 원주민
- 아시아인 또는 태평양 제도
- 미인종/다인종
- 하스데너, 스페인계 또는 라틴계
- 북아프리카/중동
- 백인
- 선택적 자기 인식 직접 기입
- 밝히고 싶지 않음

귀하의 가정에서 사용되는 기본 언어는 무엇입니까?

- 알라라이/티그리나어
- 영어
- 한국어
- 중국어/광둥어
- 스페인어
- 타갈로그어
- 베트남어
- 기타 직접 기입

귀하의 성별은 무엇입니까?

- 여자
- 남자
- 논바이너리
- 선택적 자기 인식 직접 기입
- 밝히고 싶지 않음

Do you have a disability? 해당되는 모든 것을 고르십시오

- 인지
- 청각
- 이동 능력
- 없음
- 시각
- 선택적 자기 인식 직접 기입
- 밝히고 싶지 않음

귀하의 현재 주거 상황은 어떻습니까?

- 일대
- 소유
- 친구나 가족과 함께 거주
- 주거 없음
- 기타 직접 기입
- 밝히고 싶지 않음

귀하는 이 프로젝트에 대해 어떻게 알게 되었습니까? 해당되는 모든 것을 고르십시오

- 쇼어라인 시 이메일/웹 사이트
- 뉴스
- 소셜 미디어
- 친구
- 직장으로
- 소속 단체로
- 기타 직접 기입
- 밝히고 싶지 않음

이 프로젝트에 대해 귀하와 연락할 수 있는 가장 좋은 방법은 무엇입니까? 해당되는 모든 것을 고르십시오

- 이메일
- 소셜 미디어
- 지역사회 모임 및 오픈 하우스
- 우편
- 기타 직접 기입

N 148번가 차 없는 다리 프로젝트에 대해 귀하가 공유하고 싶은 다른 사항이 있습니까?

제출

> 다음 페이지로 이동

< 이전 페이지로 이동

인식하기:

쇼어라인 시와 통신을 교환하거나 다른 언어로 된 문서를 보시려면 귀하의 연락처 정보와 함께 clk@shorelinewa.gov로 요청하거나 206-801-2700번으로 전화해 주십시오.

Lea Bonebrake, PE, 쇼어라인 프로젝트 매니저
lbonebrake@shorelinewa.gov | 206-891-2475

For additional project information, visit shorelinewa.gov/148thbridge

이 웹사이트 공유:



자세히 알으십시오:



N 148번가 차 없는 다리

사람들을 주변 지역 및 지역 대중교통과 연결하는 보행자/자전거 전용 다리

[홈](#) [프로젝트 개요](#) [일정](#) [다리](#) [서쪽 트레일 연결부](#) [다리 동쪽 진출입부](#) [추가 의견 제공](#) [향후 계획?](#)

온라인 오픈 하우스

향후 계획?

참여 방법

온라인 오픈 하우스를 방문하여 의견을 주셔서 감사합니다.

기술적 연구 및 평가와 함께 주민 여러분의 의견은 시가 이 지역을 위한 다리를 설계하는 데 도움이 될 것입니다. 시는 2020년까지 지역 사회 모임과 온라인 오픈 하우스를 통해 주민 의견을 듣고 그 내용을 다시 보고할 것입니다.

이 프로젝트에 대해
자세히 알아보려면

[N 148번가 차 없는 다리 웹 사이트를 방문하십시오.](#)

Destination 2024

N 148번가 차 없는 다리는 쇼어라인 시가 진행하는 8개의 Destination 2024 프로젝트 중 하나입니다.

쇼어라인에 2개의 새로운 사운드 트랜짓 경전철역을 준비하면서 저희는 이런 새로운 시설들과 함께 이루어질 변화를 위한 계획을 세웠습니다. 시의회는 미래의 2개 역(쇼어라인 사우스/145번가 및 쇼어라인 노스/185가) 주변의 구역 밀도를 증가시켜 새로운 주택 건설과 개발이 대중 교통에 초점이 맞춰질 수 있도록 했습니다. 향후 개발을 지원하기 위해 시는 또한 사람들이 경전철과 역 주변을 이용할 수 있도록 교통 개선 계획도 수립하고 있습니다.

아래에서 다른 프로젝트들에 대해 자세히 알아보거나

[Destination 2024 웹 사이트](#)

를 방문하여 새로운 대화식 지도를 확인하십시오.

- [145th Corridor Project \(I-5 to Aurora\)](#)
- [145번가/I-5 인터체인지 프로젝트](#)
- [1st Avenue NE Sidewalks \(145th to 155th Streets\)](#)
- [5번 대로 재도류화](#)
- [도로 열 자전거 네트워크](#)
- [SR 522/523 BRT 프로젝트\(Bothell/Lake City Way 및 145th Street Bus Rapid Transit\)](#)
- [트레일 얼롱 더 레일](#)

[← 이전 페이지로 이동](#)

연락하기:

쇼어라인 시와 통신을 교환하거나 다른 언어로 된 문서를 보시려면 귀하의 연락처 정보와 함께 clk@shorelinewa.gov로 요청하거나 206-801-2700번으로 전화해 주십시오.

Lea Bonebrake, P.E., 쇼어라인 프로젝트 매니저
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For additional project information, visit shorelinewa.gov/148thbridge

이 웹사이트 공유:



저희를 팔로우하세요:



Puente para vehículos no motorizados en N 148th Street

Un puente para peatones y ciclistas que conecta a las personas con vecindarios y transporte público regional

[INICIO](#)[DESCRIPCIÓN GENERAL
DEL PROYECTO](#)[CALENDARIO](#)[PUENTE](#)[CONEXIÓN DEL
SENDERO OESTE](#)[RELLANO ESTE
DEL PUENTE](#)[SU OPINIÓN ES
MUY IMPORTANTE](#)[¿CUÁL ES EL
SIGUIENTE PASO?](#)

JORNADA ABIERTA EN LÍNEA

¡Bienvenido a la jornada abierta en línea del puente para vehículos no motorizados en N 148th Street!

Shoreline está en crecimiento y evolución. Con la próxima llegada del tren ligero de Sound Transit, la nueva estación Shoreline South/145th del tren ligero y los autobuses públicos, y los nuevos desarrollos, los residentes necesitan nuevas maneras de conectarse con estos servicios e instalaciones en crecimiento y a una red de vías para peatones y ciclistas en expansión.

Para satisfacer estas necesidades, la ciudad de Shoreline construirá un nuevo puente para peatones y ciclistas que cruzará la carretera interestatal 5 (I-5) en N 148th Street. El puente para vehículos no motorizados en N 148th Street mejorará la seguridad de todos y disminuirá los tiempos de recorrido de los peatones y ciclistas que transitan entre los lados este y oeste de la I-5 en Shoreline.

El propósito de esta jornada abierta en línea es proporcionarle una oportunidad para:

- Obtener más información sobre este proyecto
- Expresar lo que es importante para usted y dar su opinión sobre los aspectos clave de este proyecto

Cómo usar esta jornada abierta en línea

- Para avanzar en esta jornada abierta, desplácese hacia abajo para leer cada página, y luego haga clic en el botón "Siguiente" en la parte inferior de la página o seleccione la pestaña deseada en la parte superior.
- En esta jornada abierta en línea, se le harán preguntas y podrá dar su opinión. Le llevará solo unos cuantos minutos para concluir tanto la jornada abierta como el cuestionario en línea.

¡Agradecemos su participación!

ACOMPÁÑENOS EN NUESTRO SEMINARIO WEB

Esta presentación en vivo y en
línea se llevará a cabo el:

**Jueves, 23 de abril de 2020
12:00–1:00 p.m.**

Haga clic [aquí](#) para registrarse.

Permanezca conectado

Suscríbase para recibir actualizaciones sobre
este y otros proyectos en el Corredor de N
145th Street, así como para enterarse de
oportunidades para participar.

Nombre

Apellido

Correo electrónico *

*El correo electrónico es obligatorio

ENVIAR

> SIGUIENTE

CONTACTO:

Si desea comunicarse con la ciudad de Shoreline o consultar un documento en otro idioma, envíe su solicitud junto con su información de contacto a clk@shorelinewa.gov o llame al 206-801-2700.

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For additional project information, visit shorelinewa.gov/148thbridge

COMPARTIR ESTE SITIO:



SÍGANOS:



Puente para vehículos no motorizados en N 148th Street

Un puente para peatones y ciclistas que conecta a las personas con vecindarios y transporte público regional

[INICIO](#)[DESCRIPCIÓN GENERAL DEL PROYECTO](#)[CALENDARIO](#)[PUENTE](#)[CONEXIÓN DEL SENDERO OESTE](#)[RELLANO ESTE DEL PUENTE](#)[SU OPINIÓN ES MUY IMPORTANTE](#)[¿CUÁL ES EL SIGUIENTE PASO?](#)

JORNADA ABIERTA EN LÍNEA

Descripción general del proyecto

Necesidad y beneficios

El puente para vehículos no motorizados en N 148th Street abordará varias necesidades comunitarias actuales y futuras, y ofrecerá varios beneficios, por ejemplo:

OPCIONES DE TRANSPORTE PARA UN VECINDARIO EN EVOLUCIÓN. En 2016, la ciudad desarrolló el Plan de la subzona para la estación de 145th Street a fin de atender el uso futuro del suelo y las necesidades de transporte cerca de la nueva estación de tren ligero y autobuses públicos. Conforme la zona vaya cambiando, el puente dará acceso a los residentes, comerciantes, clientes minoristas y personas que cotidianamente viajan entre su casa y el trabajo. El puente es parte de otros esfuerzos de planeación de la ciudad de Shoreline para el corredor vial y la nueva estación de tren ligero de Sound Transit de N 145th Street. Puede obtener más información sobre otros proyectos relacionados en la zona visitando el [sitio web de Destination 2024](#).

ACCESO A LA ESTACIÓN DE TREN LIGERO. Para 2024, se inaugurará la estación Shoreline South/145th, la cual prestará el servicio de tren ligero y de más autobuses de tránsito rápido a Shoreline. Más del 80 % de los residentes de Shoreline que trabajan salen de la ciudad para llegar a su empleo y casi dos terceras partes de ellos se trasladan a Seattle. Se prevé que el tránsito en la zona donde se ubica la estación aumentará en más del 25 %.

MEJOR SEGURIDAD Y MENORES TIEMPOS DE RECORRIDO. Los caminos que están separados de la calle y el espacio destinado para los peatones y ciclistas aumentan la seguridad y ayudan a disminuir el riesgo de choques con vehículos motorizados.

Actualmente, Shoreline está dividida por una carretera interestatal de nueve carriles (I-5). Un nuevo puente facilitará el traslado en Shoreline y reducirá los tiempos de recorrido de peatones y ciclistas que transiten por la zona, por al menos diez minutos. El nuevo puente también mejorará las rutas de las ciclovías al sendero interurbano, al futuro proyecto Trail Along the Rail, al sendero Burke-Gilman actual y a posibles redes de ciclovías regionales futuras.

Ubicación

El nuevo puente cruzará la Interestatal 5 (I-5) en N 148th Street. El proyecto constará de tres partes principales: la arcada del puente sobre la I-5, la conexión del sendero oeste y el rellano este del puente.



Haga clic aquí para agrandar la imagen.



Proyección de costos

Diseño	\$2.8-3.8 million
Servidumbre	\$1.5-2.1 million
Construcción	\$18.1-24.9 million
COSTO TOTAL DEL PROYECTO	\$23-30.2 million

La ciudad obtuvo \$10 millones en fondos federales, regionales y del condado. Con un costo total estimado actualmente en \$23-30.2 millones (los costos se puntualizarán durante el proceso de diseño), la ciudad sigue buscando financiamiento para concluir la obra.

[SIGUIENTE](#)[ANTERIOR](#)

CONTACTO:

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COMPARTIR ESTE SITIO:



SÍGANOS:



Puente para vehículos no motorizados en N 148th Street

Un puente para peatones y ciclistas que conecta a las personas con vecindarios y transporte público regional

INICIO

DESCRIPCIÓN GENERAL
DEL PROYECTO

CALENDARIO

PUENTE

CONEXIÓN DEL
SENDERO OESTERELLANO ESTE
DEL PUENTESU OPINIÓN ES
MUY IMPORTANTE¿CUÁL ES EL
SIGUIENTE PASO?

JORNADA ABIERTA EN LÍNEA

Calendario

La fase de diseño del proyecto inició en 2019 y continuará hasta 2021. Los integrantes de la comunidad tendrán oportunidad de dar su opinión a través de jornadas abiertas presenciales y en línea durante la revisión del diseño y del aspecto ambiental durante 2020. La obra está programada para iniciar en 2022 y concluir en 2023 antes de que se inaugure la nueva estación del tren ligero.

Estudio de factibilidad 2017 <i>Concluido</i>	Revisión ambiental y del diseño 2019-2021			Servidumbre 2021-2022	Construcción 2022-2023
	Evaluación de alternativas	Selección de alternativas preferidas	30 % de avance en el diseño		
	Septiembre de 2019-junio de 2020	Verano 2020	Verano/otoño de 2020		
	DICIEMBRE-MARZO Sesiones informativas para dueños de propiedades	Sesiones informativas para dueños de propiedades	Sesiones informativas para dueños de propiedades		
	Sesiones informativas y presentaciones comunitarias	Sesiones informativas y presentaciones comunitarias	Posibles sesiones informativas y presentaciones comunitarias		
	ABRIL Jornada abierta en línea, encuesta y presentación	Jornada abierta en línea y presencial	Posible jornada abierta en línea y presencial		

Investigación y planeación

En 2016 y 2017, la ciudad de Shoreline llevó a cabo un estudio para evaluar y recomendar opciones para conectar a las comunidades del lado oeste de la I-5 con la futura estación Shoreline South/145th de Sound Transit. Los funcionarios de la ciudad de Shoreline, el concejo municipal e ingenieros consultores analizaron cinco opciones. La ciudadanía hizo comentarios en las asambleas del concejo municipal de la ciudad de Shoreline.

La ciudad estimó que la obra en N 148th Street sería la más económica, beneficiaría a la mayor cantidad de usuarios y, de las rutas posibles, es la que proporcionaría el acceso más directo a la estación Shoreline South/145th. Asimismo, revisó los reglamentos del Departamento de Transporte del Estado de Washington (Washington State Department of Transportation o WSDOT) y de Sound Transit a fin de abordar las necesidades de seguridad en el cruce de la I-5 y las zonas aledañas. El concejo municipal de la ciudad de Shoreline aprobó esta obra en febrero de 2017.

[➤ SIGUIENTE](#)
[◀ ANTERIOR](#)

CONTACTO:

Si desea comunicarse con la ciudad de Shoreline o consultar un documento en otro idioma, envíe su solicitud junto con su información de contacto a clk@shorelinewa.gov o llame al 206-801-2700.

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For additional project information, visit shorelinewa.gov/148thbrldge

COMPARTIR ESTE SITIO:



SÍGANOS:



Puente para vehículos no motorizados en N 148th Street

Un puente para peatones y ciclistas que conecta a las personas con vecindarios y transporte público regional

INICIO

DESCRIPCIÓN GENERAL DEL PROYECTO

CALENDARIO

PUENTE

CONSEJO DEL SENDERO OESTE

¡RELLAMO ESTE DEL PUENTE!

SU OPINIÓN ES MUY IMPORTANTE

¿CUÁL ES EL SIGUIENTE PASO?

JORNADA ABIERTA EN LÍNEA

Puente

El puente ayudará a los peatones y ciclistas a cruzar la I-5 entre el vecindario Parkwood del lado oeste y la nueva estación Shoreline South/N 145th del lado este. El puente será lo suficientemente ancho para que transiten peatones y ciclistas, y cumplirá con las normas de la Ley de estadounidenses con discapacidades (ADA, por sus siglas en inglés). Todas las opciones de puentes se diseñarán conforme a las mismas normas de seguridad e incluirán barandales para los peatones y ciclistas, iluminación y blindaje (barrera de seguridad) para proteger a los conductores que transiten por la carretera interestatal de abajo de objetos que podrían caerle.

Opción 1: Puente con arcos combinados



Haga clic aquí para agrandar la imagen.

- **DISEÑO:** El puente con arcos combinados tendría un gran arco sobre la I-5 y un arco más pequeño en la conexión con el sendero del lado oeste del puente.
- **TAMAÑO:** Los arcos contarían con piezas de soporte de acero en la parte de arriba y piezas de soporte vertical que podrían ser de cable o acero.
- **SEGURIDAD:** La barrera de seguridad se unifica al interior de las piezas verticales de soporte para evitar que caigan objetos a la carretera interestatal de abajo.

Opción 2: Puente con arcos atados



Haga clic aquí para agrandar la imagen.

- **DISEÑO:** El puente con arcos atados tendría dos arcos, uno al lado del otro, y uno inclinado sobre el otro, con cables de soporte conectados.
- **TAMAÑO:** El arco más pronunciado y los cables delgados crearían más espacio y permitirían que pasara más luz que las otras opciones de puentes.
- **SEGURIDAD:** La barrera de seguridad podría sujetarse a ambos lados de los cables para evitar que caigan objetos a la carretera interestatal de abajo.

Opción 3: Puente de armadura



Haga clic aquí para agrandar la imagen.

- **DISEÑO:** Este tipo de puente tiene piezas conectadas que forman un triángulo o "armadura".
- **TAMAÑO:** Comparado con otros tipos de puente, el puente de armadura sería ligeramente más corto en su punto más alto, tendría más piezas estructurales en la parte de arriba y los soportes del exterior serían más anchos.
- **SEGURIDAD:** La barrera de seguridad estaría sujeta al interior de las armaduras para evitar que caigan objetos a la carretera interestatal de abajo.

¿Esté usando una computadora compartida o pública? Si puede ver las respuestas que alguien más dio a la encuesta, haga clic en el botón de redirigir para comenzar su propia encuesta.

REDIRIGIR

Comparta su opinión sobre las opciones de diseño del puente:

Opción 1: Puente con arcos combinados

¿Qué le agrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- Tamaño
- Aspecto y diseño generales
- Otro ESPECIFIQUE:

¿Qué le desagrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- Tamaño
- Aspecto y diseño generales
- Otro ESPECIFIQUE:

Opción 2: Puente con arcos atados

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- Aspecto y diseño generales
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- Aspecto y diseño generales
- Otro ESPECIFIQUE:

Opción 3: Puente de armadura

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- Tamaño
- Aspecto y diseño generales
- Otro ESPECIFIQUE:

¿Qué le desagrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- Tamaño
- Aspecto y diseño generales
- Otro ESPECIFIQUE:

Resumen

¿Cuál opción de puente prefiere?

- Opción 1: Puente con arcos combinados
- Opción 2: Puente con arcos atados
- Opción 3: Puente de armadura

¿Hay algo que cree que deberíamos tomar en cuenta al evaluar estas opciones de puentes?

ENVIAR

> SIGUIENTE

< ANTERIOR

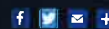
CONTACTO:

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lbonabake@shoreline.wa.gov | 206 601 2475

For additional project information, visit shoreline.wa.gov/148thbridge

COMPARTIR ESTE SITIO:



SÍGANOS:



Puente para vehículos no motorizados en N 148th Street

Un puente para peatones y ciclistas que conecta a las personas con vecindarios y transporte público regional

INICIO DESCRIPCIÓN GENERAL DEL PROYECTO CALENDARIO PUENTE CONEXIÓN DEL SENDERO OESTE BELLANDO ESTE DEL PUENTE NO OPINIÓN ES MUY IMPORTANTE LOCAL ES EL SIGUIENTE PASO?

JORNADA ABIERTA EN LÍNEA

Conexión del sendero oeste

La rampa oeste y el acceso al puente estarán del lado oeste de la I-5 en el vecindario Parkwood. El equipo del proyecto está trabajando con los vecindarios aledaños, incluidos tres lugares de culto, para identificar sus prioridades y asegurar que se limiten las interrupciones durante el diseño y la construcción del puente. Con todas las opciones, la ciudad pretende conservar los árboles maduros que haya en la zona del proyecto, siempre que sea posible.

Opción 1: Construcción mínima

VISTA DESDE ARRIBA



LEYENDA

- A** 1ST AVENUE NE: Las mejoras a 1st Avenue NE podrían llevarse a cabo como un proyecto independiente en el futuro.
- B** BICICLETAS: Las bicicletas compartirán el estacionamiento con los vehículos y luego se conectarán al puente.
- C** SENDERO: El sendero será una acera peatonal de 2.4 metros entre 1st Avenue NE y el puente, y contará con iluminación.
- D** ESTACIONAMIENTO: El estacionamiento en las iglesias no cambiará.

Haga clic aquí para agrandar la vista desde arriba.

SECCIÓN REPRESENTATIVA TÍPICA

Con vista al oeste hacia 1st Avenue NE



Haga clic aquí para agrandar la sección representativa.

Opción 2: Construcción completa

VISTA DESDE ARRIBA



LEYENDA

- A** 1ST AVENUE NE: Las mejoras a 1st Avenue NE podrían llevarse a cabo como un proyecto independiente en el futuro.
- B** BICICLETAS: Las bicicletas compartirán el sendero con los peatones.
- C** SENDERO: Los peatones y ciclistas usarán un camino compartido de 4.8 metros que se conecta al puente y que tiene un borde de paisajismo e iluminación entre el camino y las instalaciones de la iglesia. Con esta opción, la gente tendría que ingresar a las secciones de las instalaciones de las iglesias contiguas.
- D** ESTACIONAMIENTO: Para crear un sendero más ancho, es posible que se eliminen algunos cajones de estacionamiento. La ciudad está buscando opciones para reubicar el estacionamiento del lado oeste del puente.

Haga clic aquí para agrandar la vista desde arriba.

SECCIÓN REPRESENTATIVA TÍPICA

Con vista al oeste hacia 1st Avenue NE



Haga clic aquí para agrandar la sección representativa.

¿Está usando una computadora compartida o pública? Si puede, ver las respuestas que alguien más dio a la encuesta, haga clic en el botón de reiniciar para comenzar su propia encuesta.

REINICIAR

Comparta su opinión sobre el diseño de la conexión del sendero oeste:

Opción 1: Construcción mínima

¿Qué le agrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN

- ☐ Diseño del sendero
- ☐ Separación entre ciclistas y peatones
- ☐ Opciones de estacionamiento
- ☐ Otro especifique:

¿Qué le desagrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN

- ☐ Diseño del sendero
- ☐ Separación entre ciclistas y peatones
- ☐ Opciones de estacionamiento
- ☐ Otro especifique:

Opción 2: Construcción completa

¿Qué le agrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN

- ☐ Diseño del sendero
- ☐ Camino compartido para ciclistas y peatones
- ☐ Opciones de estacionamiento
- ☐ Otro especifique:

¿Qué le desagrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN

- ☐ Diseño del sendero
- ☐ Camino compartido para ciclistas y peatones
- ☐ Opciones de estacionamiento
- ☐ Otro especifique:

Resumen

¿Cuál opción para la conexión del sendero oeste prefiere?

- ☐ Opción 1: Construcción mínima
- ☐ Opción 2: Construcción completa

¿Hay algo que cree que deberíamos tomar en cuenta al evaluar estas opciones para la conexión del sendero oeste?

ENVIAR

> SIGUIENTE

< ANTERIOR

CONTACTO:

Si desea comunicarse con la ciudad de Shoreline o consultar un documento en otro idioma, envíe su solicitud junto con su información de contacto a city@shoreline.gov o llame al 206 801-2700.

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Bonabrusa@shoreline.gov | 206-801-2435

For additional project information, visit shoreline.gov/148thbrdgs

COMPARTIR ESTE SITIO:



SÍGANOS:



Puente para vehículos no motorizados en N 148th Street

Un puente para peatones y ciclistas que conecta a las personas con vecindarios y transporte público regional

INICIO DESCRIPCIÓN GENERAL DEL PROYECTO CALENDARIO PLANTEL CONSERVACIÓN DEL SENDERO DESTE RELLANO ESTE DEL PUENTE SU OPINIÓN ES MUY IMPORTANTE ¿QUÉ PASA EL SIGUIENTE PASO?

JORNADA ABIERTA EN LÍNEA

Rellano este del puente

El rellano este del puente, del lado este de la I-5, llevará a los transeúntes a la futura estación South Shoreline/N 148th, donde podrán subirse al tren ligero o los autobuses de Sound Transit o acceder al futuro proyecto Trail Along the Rail a pie o en bicicleta. La estación de Sound Transit incluirá estacionamiento para bicicletas. Todas las opciones de diseño incluirán:

- Un puente y una rampa que cruzarán las vías del tren ligero de Sound Transit por abajo.
- Cumplimiento con las normas de la Ley de Estadounidenses con discapacidades (ADA).
- Un muro permanente a prueba de ruido por debajo del puente, contiguo a la carretera.
- Conexiones con el proyecto Trail Along the Rail.
- Todos los senderos, rampas y escaleras exteriores que estén en la zona de la estación tendrán iluminación.
- El estacionamiento del tren ligero de Sound Transit tendrá espacio para 500 vehículos.

Opción 1: Rampa en "A"



- LEYENDA**
- A** Rampa: Esta opción de rampa tiene una forma angular y una pendiente más pronunciada que las otras opciones (pendiente promedio del 6.5 % hacia la estación).
 - B** Escaleras: La gente también puede bajar por las escaleras para llegar a la estación.
 - C** Las vías del tren ligero de Sound Transit pasarán por arriba de la rampa y las escaleras hasta la estación. En su punto más bajo, el espacio entre el puente y las vías del tren ligero es de aproximadamente 2.4 metros.

Haga clic aquí para agrandar la imagen.

Opción 2: Rampa en zigzag



- LEYENDA**
- A** Rampa: Una rampa en zigzag es una rampa más gradual (con una pendiente de aproximadamente el 4 %) hacia la estación.
 - B** Escaleras: La gente también puede bajar por las escaleras para llegar a la estación.
 - C** Las vías del tren ligero de Sound Transit pasarán por arriba de la rampa y las escaleras hasta la estación. En su punto más bajo, el espacio entre el puente y las vías del tren ligero es de un poco más de 2.7 metros.

Haga clic aquí para agrandar la imagen.

Opción 3: Rampa directa



- LEYENDA**
- A** Rampa: Esta rampa ofrece conexiones directas tanto a la estación como al proyecto contiguo Trail Along the Rail. La rampa también está menos empinada (pendiente del 4 %) que la opción 1. El diseño no requiere escaleras para llegar a la estación.
 - B** Las vías del tren ligero de Sound Transit pasarán por arriba de la rampa hacia la estación. En su punto más bajo, el espacio entre el puente y las vías del tren ligero es de aproximadamente entre 2.6 y 2.7 metros.

Haga clic aquí para agrandar la imagen.

¿Está usando una computadora compartida o pública? Si puede, por favor inicie sesión con su cuenta de Sound Transit para poder guardar su opinión. Haga clic en el botón de reiniciar para comenzar su propia encuesta.

REINICIAR

Comparta su opinión sobre el diseño del rellano este del puente:

Opción 1: Rampa en "A"

¿Qué le agrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- ☐ Diseño de la rampa.
- ☐ Altura libre desde las vías de Sound Transit.
- ☐ Conexión a la estación del tren ligero.
- ☐ Conexiones al proyecto Trail Along the Rail.
- ☐ Senderos para peatones y ciclistas.
- ☐ Acceso a la estación por las escaleras.
- ☐ Otro especifique:

¿Qué le desagrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- ☐ Diseño de la rampa.
- ☐ Altura libre desde las vías de Sound Transit.
- ☐ Conexión a la estación del tren ligero.
- ☐ Conexiones al proyecto Trail Along the Rail.
- ☐ Senderos para peatones y ciclistas.
- ☐ Acceso a la estación por las escaleras.
- ☐ Otro especifique:

Opción 2: Rampa en zigzag

¿Qué le agrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- ☐ Diseño de la rampa.
- ☐ Altura libre desde las vías de Sound Transit.
- ☐ Conexión a la estación del tren ligero.
- ☐ Conexiones al proyecto Trail Along the Rail.
- ☐ Senderos para peatones y ciclistas.
- ☐ Acceso a la estación por las escaleras.
- ☐ Otro especifique:

¿Qué le desagrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- ☐ Diseño de la rampa.
- ☐ Altura libre desde las vías de Sound Transit.
- ☐ Conexión a la estación del tren ligero.
- ☐ Conexiones al proyecto Trail Along the Rail.
- ☐ Senderos para peatones y ciclistas.
- ☐ Acceso a la estación por las escaleras.
- ☐ Otro especifique:

Opción 3: Rampa directa

¿Qué le agrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- ☐ Diseño de la rampa.
- ☐ Altura libre desde las vías de Sound Transit.
- ☐ Conexión a la estación del tren ligero.
- ☐ Conexiones al proyecto Trail Along the Rail.
- ☐ Senderos para peatones y ciclistas.
- ☐ Que no haya acceso a la estación por las escaleras.
- ☐ Otro especifique:

¿Qué le desagrada de esta opción? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- ☐ Diseño de la rampa.
- ☐ Altura libre desde las vías de Sound Transit.
- ☐ Conexión a la estación del tren ligero.
- ☐ Conexiones al proyecto Trail Along the Rail.
- ☐ Senderos para peatones y ciclistas.
- ☐ Que no haya acceso a la estación por las escaleras.
- ☐ Otro especifique:

Resumen

¿Cuál opción para el rellano este del puente prefiere?

- ☐ Opción 1: Rampa en "A"
- ☐ Opción 2: Rampa en zigzag
- ☐ Opción 3: Rampa directa

¿Hay algo que cree que deberíamos tomar en cuenta al evaluar estas opciones para el rellano este del puente?

ENVIAR

> SIGUIENTE

< ANTERIOR

CONTACTO:

Si desea comunicarse con la ciudad de Shoreline o consultar un documento en línea, envíe su solicitud junto con su información de contacto a city@shoreline.wa.gov o llame al 206.801.2700.

Lee Bonbrake, ingeniera profesional, ciudad de Shoreline, gerente de proyecto Bonbrake@shoreline.wa.gov | 206.801.7475

For additional project information, visit shoreline.wa.gov/148thbridge

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Puente para vehículos no motorizados en N 148th Street

Un puente para peatones y ciclistas que conecta a las personas con vecindarios y transporte público regional

INICIO

DESCRIPCIÓN GENERAL DEL PROYECTO

CALENDARIO

PUENTE

CONEXIÓN DEL SENDERO DESTE

RELLANAR ESTE DEL PUENTE

SU OPINIÓN ES MUY IMPORTANTE

¿CUAL ES EL SIGUIENTE PASO?

JORNADA ABIERTA EN LÍNEA

Su opinión es muy importante

La opinión pública será fundamental para el diseño del puente y cómo lucirán, funcionarán e integrarán las rampas y los accesos en las comunidades en ambos lados de la I-5. Los miembros de la comunidad tendrán varias oportunidades para dar su opinión a lo largo del proceso de diseño. Queremos asegurarnos de que la labor de diseño y planeación del puente atienda sus prioridades y, a la vez, satisfaga las necesidades técnicas del proyecto.

¿Está usando una computadora compartida o pública? Si puede ver las respuestas que alguien más dio a la encuesta, haga clic en el botón de reiniciar para comenzar su propia encuesta.

REINICIAR

Su opinión

¿Piensa usar el nuevo puente para vehículos no motorizados en N 148th Street?

- ☐ SI
- ☐ No
- ☐ Aún no sé

Si piensa usar el puente, ¿qué medios de transporte planea usar? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- ☐ Caminar
- ☐ Bicicleta
- ☐ Otros dispositivos recreativos con ruedas, como monopatines o patinetas
- ☐ Silla de ruedas u otro medio de transporte con asistencia
- ☐ Otro ESPECIFIQUE:

Si piensa usar el puente, ¿cuál será el motivo de su recorrido? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- ☐ Acceder al tren ligero en la estación South Shoreline/N 145th
- ☐ Acceder a los autobuses que están en o cerca de la estación South Shoreline/N 145th
- ☐ Acceder a otros vecindarios del lado oeste o este de la I-5
- ☐ Acceder a los senderos para ciclistas o peatones
- ☐ Otro ESPECIFIQUE:

Seleccione los tres criterios principales que son los más importantes para usted respecto a este proyecto. SU OPINIÓN AYUDARÁ AL EQUIPO DEL PROYECTO A MEDIDA QUE EVALUAMOS CADA OPCIÓN DE DISEÑO.

- ☐ Mantener un entorno seguro para la comunidad
- ☐ Mantener las opciones actuales de estacionamiento
- ☐ Minimizar el impacto a las propiedades aledañas
- ☐ Gestionar los costos del proyecto
- ☐ Minimizar el impacto de la obra
- ☐ Proteger los árboles maduros
- ☐ Mejorar los recorridos de los peatones (por ejemplo, las aceras y las cruces peatonales)
- ☐ Mejorar los recorridos en bicicleta
- ☐ Disminuir el tiempo de recorrido hacia la estación del tren ligero y la zona de autobuses
- ☐ Diseño visual y aspecto general
- ☐ Limitar la adquisición de la ciudad de propiedades privadas

Comparta con nosotros un poco más de información sobre usted para que podamos entender qué tan incluyente ha sido nuestro contacto con la comunidad.

¿Cuál es su código postal?

- 98133
- 98135
- 98160
- 98177
- Otro ESPECIFIQUE:

¿Qué edad tiene?

- ☐ 19 años o menos
- ☐ 20-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65 o más
- ☐ Prefiero no decirlo

¿Cuál es su raza u origen étnico?

- ☐ MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.
- ☐ Afroamericano o negro
- ☐ Indígena estadounidense o nativo de Alaska
- ☐ Asiático u originario de las islas del Pacífico
- ☐ Multirracial o birracial
- ☐ Hispano, español o latino
- ☐ Norteafricano o del Medio Oriente
- ☐ Blanco o caucásico
- ☐ Autoidentificación opcional ESPECIFIQUE:
- ☐ Prefiero no decirlo

¿Cuál es el idioma principal que habla en su hogar?

- ☐ Américo o Nigrita
- ☐ Inglés
- ☐ Coreano
- ☐ Mandarín o cantonés
- ☐ Español
- ☐ Tagalo
- ☐ Vietnamita
- ☐ Otro ESPECIFIQUE:

¿Con qué género se identifica?

- ☐ Mujer
- ☐ Hombre
- ☐ No binario
- ☐ Autoidentificación opcional ESPECIFIQUE:
- ☐ Prefiero no decirlo

¿Do you have a disability? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- ☐ Cognitiva
- ☐ Auditiva
- ☐ De movilidad
- ☐ Ninguna
- ☐ De la vista
- ☐ Autoidentificación opcional ESPECIFIQUE:
- ☐ Prefiero no decirlo

¿Cuál es su situación de vivienda actual?

- ☐ Renta
- ☐ Vivienda propia
- ☐ Me quedo con amigos o parientes
- ☐ Sin vivienda
- ☐ Otro ESPECIFIQUE:
- ☐ Prefiero no decirlo

¿Cómo se enteró de este proyecto? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- ☐ Correo electrónico o sitio web de la ciudad de Shoreline
- ☐ Boletín de noticias
- ☐ Redes sociales
- ☐ Amigo(a)
- ☐ Mi empleador
- ☐ Una organización de la que formo parte
- ☐ Otro ESPECIFIQUE:
- ☐ Prefiero no decirlo

¿Cuál es la mejor manera de mantenernos en contacto con usted con relación a este proyecto? MARQUE TODAS LAS RESPUESTAS QUE CORRESPONDAN.

- ☐ Correo electrónico
- ☐ Redes sociales
- ☐ Asambleas comunitarias y jornadas abiertas
- ☐ Correo postal
- ☐ Otro ESPECIFIQUE:

¿Hay algo más que quisiera comentar acerca del proyecto del puente para vehículos no motorizados en N 148th?

ENVIAR

> SIGUIENTE

< ANTERIOR

CONTACTO:

Si desea comunicarse con la ciudad de Shoreline o consultar un documento en otro idioma, envíe su solicitud junto con su información de contacto a cl@shorelinewa.gov o llame al 206 801-2700.

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For additional project information, visit shorelinewa.gov/148thbridge

COMPARTIR ESTE SITIO:



SÍGANOS:



Puente para vehículos no motorizados en N 148th Street

Un puente para peatones y ciclistas que conecta a las personas con vecindarios y transporte público regional

[INICIO](#)[DESCRIPCIÓN GENERAL
DEL PROYECTO](#)[CALENDARIO](#)[PUENTE](#)[CONEXIÓN DEL
SENDERO OESTE](#)[RELLANO ESTE
DEL PUENTE](#)[SU OPINIÓN ES
MUY IMPORTANTE](#)[¿CUÁL ES EL
SIGUIENTE PASO?](#)

JORNADA ABIERTA EN LÍNEA

¿Cuál es el siguiente paso?

Cómo mantenerse involucrado

GRACIAS POR VISITAR LA JORNADA ABIERTA EN LÍNEA Y DARNOS SU OPINIÓN. Junto con las investigaciones y evaluaciones técnicas, su opinión ayudará a la ciudad a diseñar el puente para la comunidad. Le comunicaremos lo que dijo el público en asambleas comunitarias y jornadas abiertas en línea durante 2020.

CONOZCA MÁS SOBRE ESTE PROYECTO en el [sitio web del puente para vehículos no motorizados en N 148th Street](#).

Destination 2024

El puente para vehículos no motorizados en N 148th Street es uno de los ocho proyectos de Destination 2024 dirigidos por la ciudad de Shoreline.

Con el fin de prepararnos para dos estaciones nuevas del tren ligero de Sound Transit en Shoreline, hemos planeado los cambios que se harán con la llegada de estas nuevas instalaciones. El concejo municipal ha incrementado las densidades de zonificación alrededor de las dos estaciones futuras de Shoreline South/145th y Shoreline North/185th para que las viviendas y los desarrollos se concentren en la zona de transporte. Para apoyar el desarrollo posterior, la ciudad también piensa hacer mejoras al transporte a fin de ayudar a la gente a llegar a la zona del tren ligero y alrededor de la estación.

Conozca más sobre los proyectos a continuación o visite el [sitio web de Destination 2024](#) y consulte nuestro nuevo mapa interactivo.

- [Proyecto del corredor de 145th \(I-5 a Aurora\)](#) (en inglés)
- [Proyecto para la Intersección de 145th/I-5](#) (en inglés)
- [Aceras de 1st Avenue NE \(d e la calle 145th a la calle 155th\)](#) (en inglés)
- [Recanallización de 5th Avenue](#) (en inglés)
- [Red de ciclovías fuera del corredor vial](#) (en inglés)
- [Proyecto de autobuses de tránsito rápido \(BRT\) en las rutas estatales \(SR\) 522/523 \(autobuses de tránsito rápido en Bothell/Lake City Way y 145th Street\)](#) (en inglés)
- [Sendero a lo largo de las vías](#) (en inglés)

[< ANTERIOR](#)

CONTACTO:

Si desea comunicarse con la ciudad de Shoreline o consultar un documento en otro idioma, envíe su solicitud junto con su información de contacto a clk@shorelinewa.gov o llame al 206-801-2700.

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For additional project information, visit shorelinewa.gov/148thbridge

COMPARTIR ESTE SITIO:



SÍGANOS:





N 148th STREET NON-MOTORIZED BRIDGE PROJECT

ONLINE OPEN HOUSE TOPLINE SUMMARY

APRIL 10-MAY 1, 2020

SUMMARY

As part of the N 148th Street Non-Motorized Bridge Project, the City of Shoreline hosted an online open house between April 10 and May 1, 2020, to share information and gather input on the design of the bridge and how it connects to the neighborhoods on the east and west sides of I-5.

When visiting the online open house participants could:

- Learn more about the project need, benefits, and schedule.
- Review the options being considered for each design element and provide feedback on those options.
- Share how they plan to use the bridge and what criteria is most important to them.
- Share demographic information to help determine the effectiveness of the City's outreach.
- Sign up for email updates about this project and others in the N 145th Street corridor.

The City used multiple methods to reach audiences and promote the online open house. A postcard advertising the online open house and the webinar was sent to 4,195 addresses in the project area. Information about the online open house was also posted on the project webpage and on social media, and the project team sent emails to project partners, neighborhood organizations, and immediate project stakeholders.

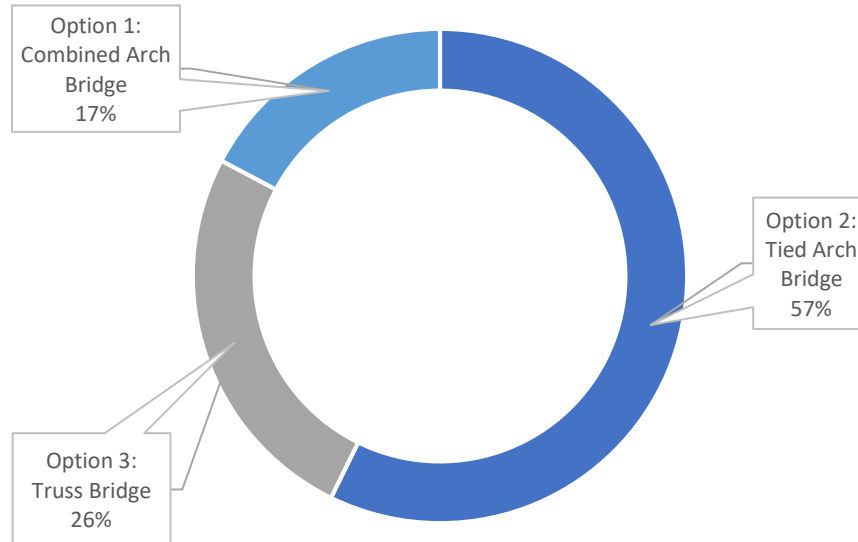
Between April 10 and May 1, 529 individuals visited the online open house. There were 165 survey respondents, who provided:

- 125 responses to bridge structure questions
- 87 responses to the east bridge landing questions
- 113 responses to the west trail connection questions
- 98 responses to evaluation criteria questions
- 110 responses to bridge use and demographic questions
- 33 open-ended comments in response to the question *"Is there anything else you would like to share about the N 148th St Non-Motorized Bridge Project?"*

The following summary captures quantitative data from the survey. All questions were optional. Not all respondents answered every question. Qualitative data will be included in the full report on the survey and online open house.

BRIDGE

WHICH BRIDGE OPTION DO YOU PREFER?



Answers	Percentage	Tally
Option 2: Tied Arch Bridge	57%	63
Option 3: Truss Bridge	26%	28
Option 1: Combined Arch Bridge	17%	19
Total	100%	110

OPTION 1: COMBINED ARCH BRIDGE

What do you like about this option? Select all that apply.

Answers	Tally
Overall look and design	57
Size	25
Other	6

Respondents: 66

What do you dislike about this option? Select all that apply.

Answers	Tally
Overall look and design	23
Size	12
Other	6

Respondents: 38

OPTION 2: TIED ARCH BRIDGE

What do you like about this option? Select all that apply.

Answers	Tally
Overall look and design	82
Size	31
Other	11

Respondents: 86

What do you dislike about this option? Select all that apply.

Answers	Tally
Size	18
Overall look and design	12
Other	5

Respondents: 29

OPTION 3: TRUSS BRIDGE

What do you like about this option? Select all that apply.

Answers	Tally
Overall look and design	25
Size	20
Other	9

Respondents: 39

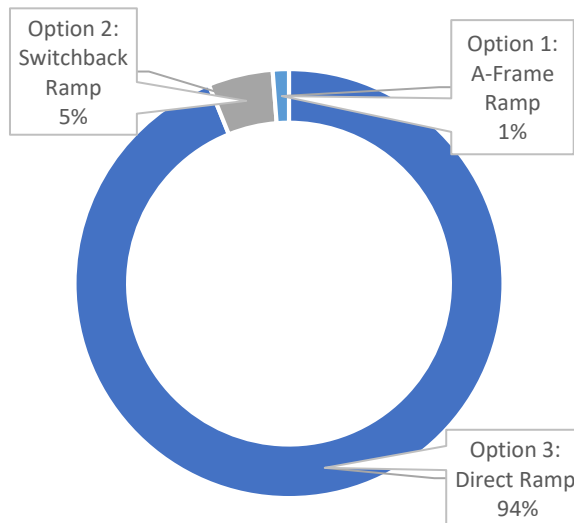
What do you dislike about this option? Select all that apply.

Answers	Tally
Overall look and design	68
Size	17
Other	14

Respondents: 75

EAST BRIDGE LANDING

WHICH OPTION DO YOU PREFER?



Answers	Percentage	Tally
Option 3: Direct Ramp	94%	77
Option 2: Switchback Ramp	5%	4
Option 1: A-Frame Ramp	1%	1
Total	100%	82

OPTION 1: A-FRAME RAMP

What do you like about this option? Select all that apply.

Answers	Tally
Stair access to station	22
Connection to light rail station	19
Pedestrian and bicycle pathways	17
Ramp layout	12
Connection to Trail Along the Rail	12
Other	3
Height clearance from Sound Transit tracks	2

Respondents: 32

What do you dislike about this option? Select all that apply.

Answers	Tally
Height clearance from Sound Transit tracks	36
Ramp layout	29
Connection to Trail Along the Rail	16
Other	15
Stair access to station	12
Pedestrian and bicycle pathways	5
Connection to light rail station	4

Respondents: 57

OPTION 2: SWITCHBACK RAMP

What do you like about this option? Select all that apply.

Answers	Tally
Height clearance from Sound Transit tracks	25
Connection to light rail station	14
Ramp layout	12
Pedestrian and bicycle pathways	11
Stair access to station	11
Connection to Trail Along the Rail	7
Other	5

Respondents: 41

What do you dislike about this option? Select all that apply.

Answers	Tally
Ramp layout	34
Connection to Trail Along the Rail	21
Stair access to station	18
Connection to light rail station	7
Pedestrian and bicycle pathways	7
Height clearance from Sound Transit tracks	6
Other	6

Respondents: 48

OPTION 3: DIRECT RAMP

What do you like about this option? Select all that apply.

Answers	Tally
Ramp layout	53
Connection to Trail Along the Rail	50
Connection to light rail station	48
Height clearance from Sound Transit tracks	34
Pedestrian and bicycle pathways	33
No stair access to station	29
Other	8

Respondents: 67

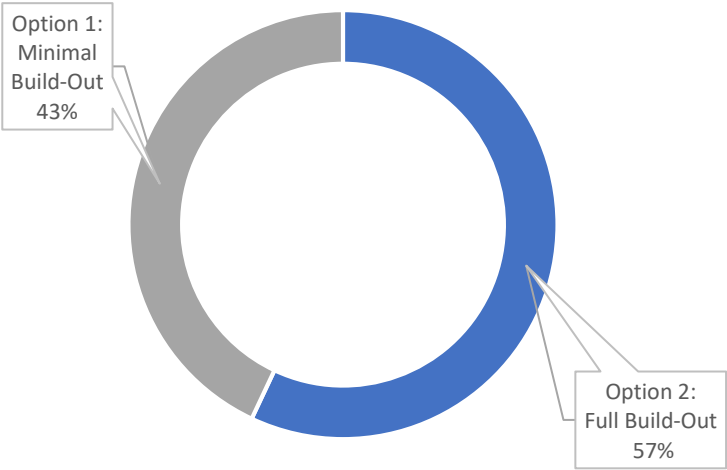
What do you dislike about this option? Select all that apply.

Answers	Tally
No stair access to station	15
Height clearance from Sound Transit tracks	6
Ramp layout	4
Pedestrian and bicycle pathways	3
Other	3
Connection to Trail Along the Rail	2
Connection to light rail station	1

Respondents: 24

WEST TRAIL CONNECTION

WHICH OPTION DO YOU PREFER?



Answers	Percentage	Tally
Option 2: Full Build-Out	57%	57
Option 1: Minimal Build-Out	43%	43
Total	100%	100

OPTION 1: MINIMAL BUILD-OUT

What do you like about this option? Select all that apply.

Answers	Tally
Separation between bicyclists and pedestrians	47
Parking options	33
Trail design	26
Other	11

Respondents: 69

What do you dislike about this option? Select all that apply.

Answers	Tally
Separation between bicyclists and pedestrians	31
Trail design	28
Other	26
Parking options	11

Respondents: 65

OPTION : FULL BUILD-OUT

What do you like about this option? Select all that apply.

Answers	Tally
Trail design	51
Shared bicycle and pedestrian path	49
Other	9
Parking options	5

Respondents: 63

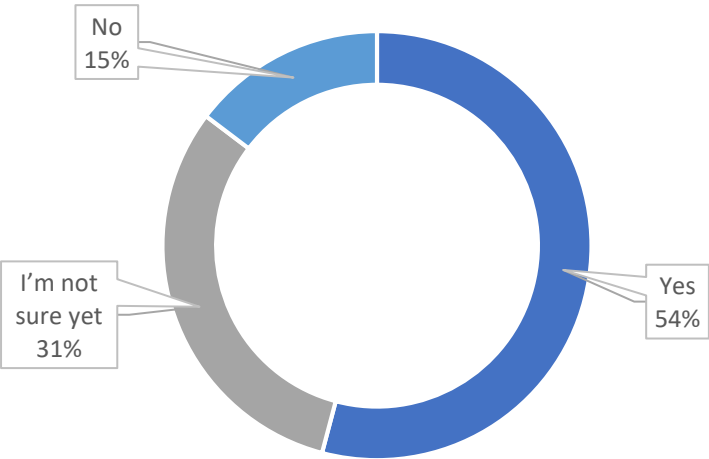
What do you dislike about this option? Select all that apply.

Answers	Tally
Shared bicycle and pedestrian path	39
Parking options	34
Other	13
Trail design	12

Respondents: 61

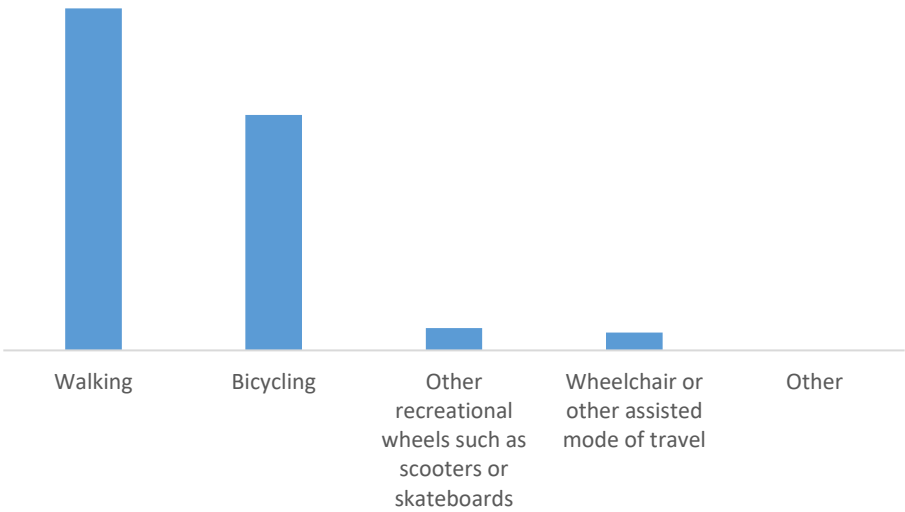
DEMOGRAPHIC INFORMATION

Do you plan to use the new N 148th Street Non-Motorized Bridge?



Answers	Percentage	Tally
Yes	54%	59
I'm not sure yet	31%	34
No	15%	16
Total	100%	109

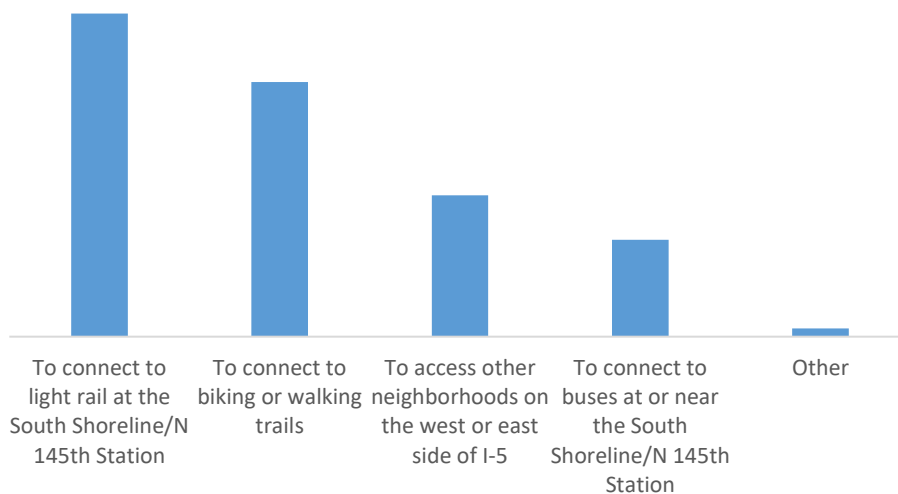
If you do plan to use the bridge, what modes of travel do you plan to use? Select all that apply.



Answers	Tally
Walking	77
Bicycling	53
Other recreational wheels such as scooters or skateboards	5
Wheelchair or other assisted mode of travel	4
Other	0

Respondents: 92

If you do plan to use the bridge, what will be the purpose of your travel? Select all that apply.



Answers	Tally
To connect to light rail at the South Shoreline/N 145th Station	80
To connect to biking or walking trails	63
To access other neighborhoods on the west or east side of I-5	35
To connect to buses at or near the South Shoreline/N 145th Station	24
Other	2

Respondents: 91

Please select the top three criteria that are most important to you for this project.



**IMPROVE
PEDESTRIAN TRAVEL**

55%



**MAINTAIN SAFE
ENVIRONMENT**

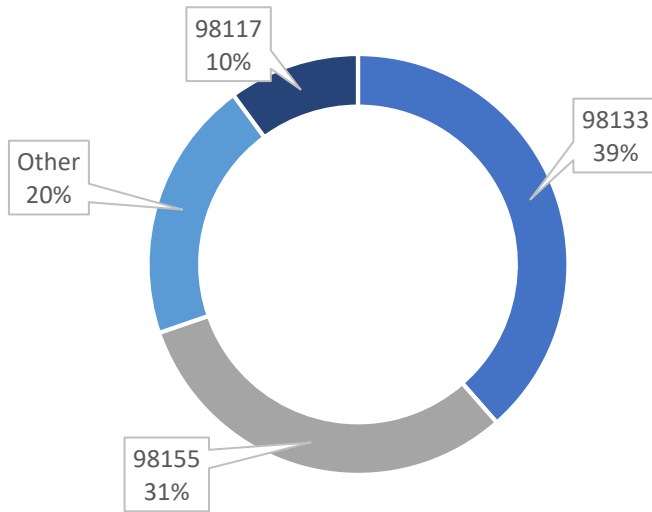
44%



SHORTEN TRAVEL TIME

34%

Answers	Percentage	Tally
Improve pedestrian travel (e.g., sidewalks, crosswalks)	55%	59
Maintain safe environment for community	44%	47
Shorten travel time to light rail station/transit center	34%	36
Improve bicycle travel	33%	35
Protect mature trees	27%	29
Visual design and overall look	21%	23
Manage project costs	17%	18
Minimize impacts to neighboring properties	15%	16
Maintain existing parking options	13%	14
Limit city acquisition of private property	9%	10
Total	n/a	107

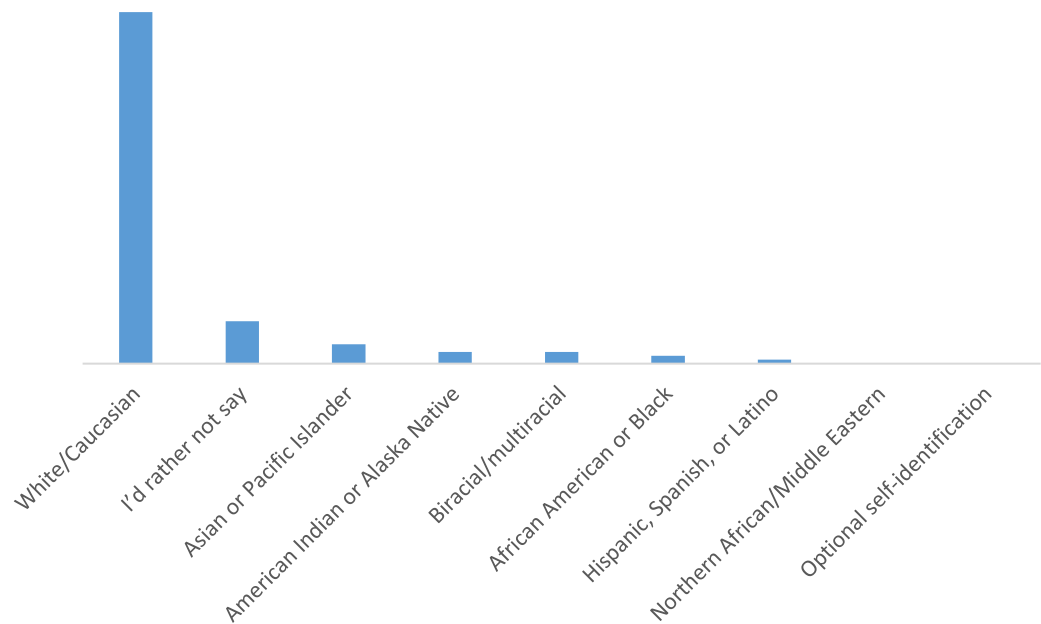
What is your ZIP code?

Answers	Percentage	Tally
98133	39%	42
98155	31%	34
Other	20%	22
98117	10%	11
98160	0%	0
Total	100%	109

What is your age?

Answers	Percentage	Tally
65 or older	22%	24
55–64	20%	22
35–44	19%	21
45–54	19%	21
25–34	13%	14
20–24	3%	3
I'd rather not say	2%	2
19 or younger	1%	1
Total	100%	108

What is your race/ethnicity? Select all that apply.



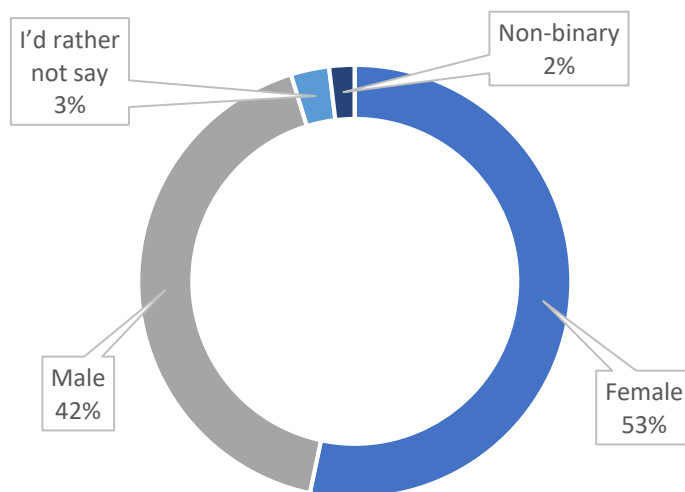
Answers	Tally
White/Caucasian	87
I'd rather not say	11
Asian or Pacific Islander	5
American Indian or Alaska Native	3
Biracial/multiracial	3
African American or Black	2
Hispanic, Spanish, or Latino	1
Northern African/Middle Eastern	0
Optional self-identification	0

Respondents: 107

What is the primary language spoken in your home?

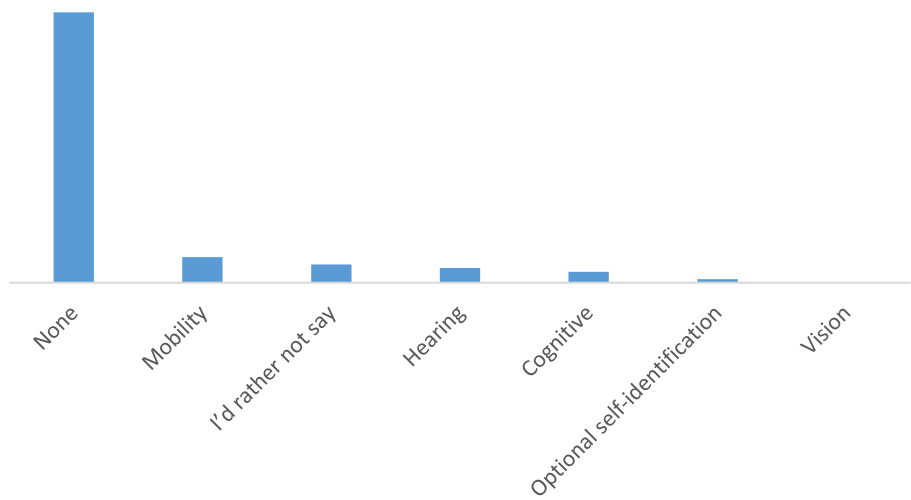
Answers	Percentage	Tally
English	100%	107
Amharic/Tigrinya	0%	0
Korean	0%	0
Mandarin/Cantonese	0%	0
Spanish	0%	0
Tagalog	0%	0
Vietnamese	0%	0
Other	0%	0
Total	100%	107

What gender do you identify as?



Answers	Percentage	Tally
Female	53%	56
Male	42%	44
I'd rather not say	3%	3
Non-binary	2%	2
Optional self-identification	0%	0
Total	100%	105

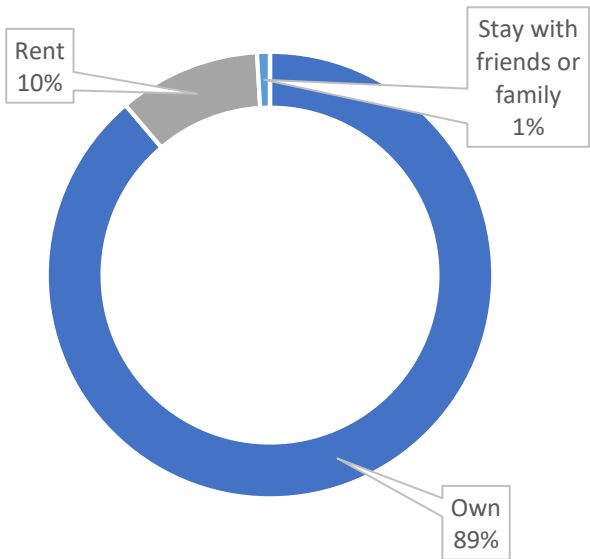
Do you have a disability? Select all that apply.



Answers	Tally
None	74
Mobility	7
I'd rather not say	5
Hearing	4
Cognitive	3
Optional self-identification	1
Vision	0

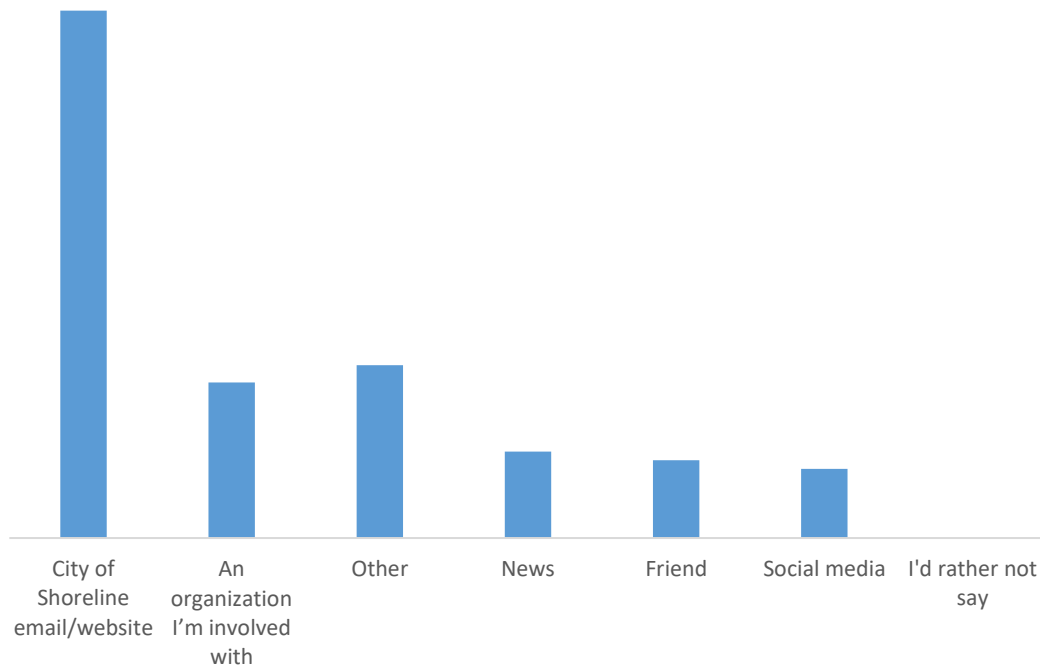
Respondents: 94

What is your current housing situation?



Answers	Percentage	Tally
Own	89%	95
Rent	10%	11
Stay with friends or family	1%	1
Without housing	0%	0
Other	0%	0
I'd rather not say	0%	0
Total	100%	107

How did you learn about this project? Select all that apply.

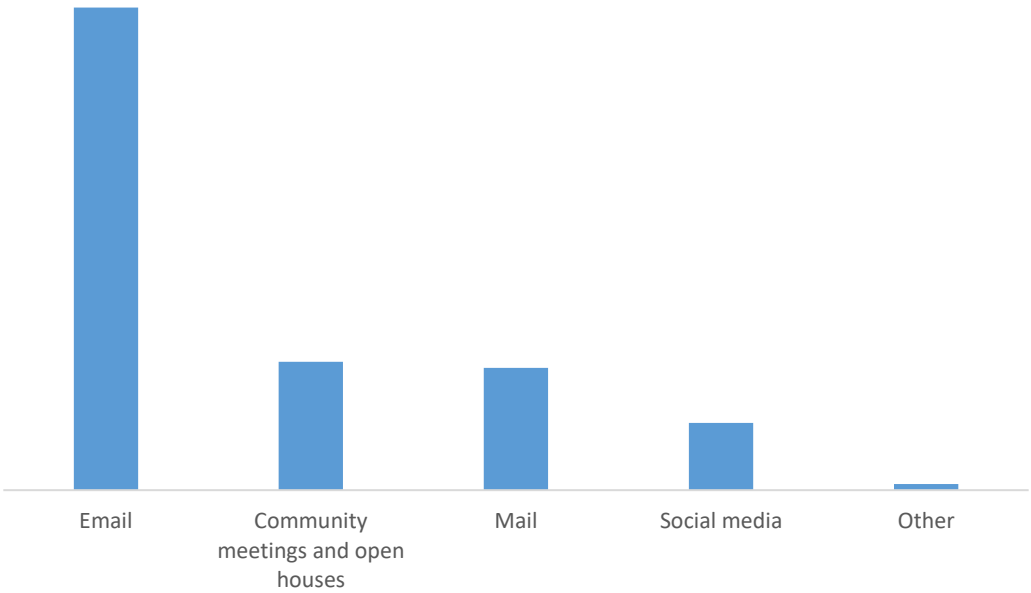


Answers	Tally
City of Shoreline email/website	61
An organization I'm involved with	18
Other**	20
News	10
Friend	9
Social media	8
I'd rather not say	0

Respondents: 107

*****Reporting Note: This question unintentionally omitted "mailer" as an option. Several people who responded with "other" said they received a mailer from the City of Shoreline.***

What is the best way to stay in touch with you about this project? Select all that apply.



Answers	Tally
Email	79
Community meetings and open houses	21
Mail	20
Social media	11
Other	1

Respondents: 99