

**CITY COUNCIL AGENDA ITEM**  
CITY OF SHORELINE, WASHINGTON

**AGENDA TITLE:** Discussion and Update on the Sidewalk Rehabilitation Program and 2018 Voter Approved New Sidewalk Program

**DEPARTMENT:** Public Works

**PRESENTED BY:** Tricia Juhnke, City Engineer

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

**PROBLEM/ISSUE STATEMENT:**

The need for sidewalks has been a priority for the community and the City Council since incorporation. In 2018, the Council approved a Sidewalk Prioritization Plan and an increase in the vehicle license fees to support sidewalk repair and rehabilitation. Later in 2018, Shoreline voters approved an increase in the Sales and Use Tax to fund the construction of new sidewalks with 12 locations being included in the ballot measure.

Since 2018, staff has focused on developing and implementing both programs - the Sidewalk Rehabilitation Program and the 2018 Voter Approved New Sidewalk Program. Tonight, staff will provide Council with an update on these programs and an opportunity to ask questions of staff. The following topics are included in tonight's discussion:

- Status of the 2018 Voter Approved New Sidewalk Program;
- Status of the Sidewalk Rehabilitation Program;
- Key issues that impact both programs; and
- Plans for future updates to the Sidewalk Prioritization Plan.

**RESOURCE/FINANCIAL IMPACT:**

There is no resource or financial impact associated with tonight's discussion. The voter approved new sidewalk program and sidewalk rehabilitation program are both currently funded by bonds with Sales and Use Tax and Vehicle License Fees providing the revenue for the respective programs.

**RECOMMENDATION**

No action is required; this item allows staff to update the Council on the development and implementation of the new sidewalk and sidewalk rehabilitation programs and provides Council an opportunity to ask questions or seek clarifications from staff.

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

## **BACKGROUND**

In 2018, the City Council adopted a Sidewalk Prioritization Plan for new sidewalks after a year-long process working with a Sidewalk Advisory Committee and the community to develop a method of prioritizing new sidewalks projects. The criteria used in prioritizing sidewalks included safety, equity, proximity and connectivity. On June 4, 2018, [Council approved the Sidewalk Prioritization Plan](#), the results of the [prioritization are shown in this map](#).

During this prioritization process, staff and the Sidewalk Advisory Committee also discussed repair and replacement of existing sidewalks throughout the City. This was part of the development of the [City's American's with Disabilities Act \(ADA\) Transition plan](#) for the public Right-of-Way. The ADA Transition Plan developed priorities for sidewalk repair and replacement based on a combination of a Barrier Condition Rating (BCR) and an Accessibility Demand Rating (ADR). The BCR represents the severity of the non-compliance with the ADA based on a self-assessment or inventory of the sidewalk assets. The ADR represents the proximity to important City destinations and nearby demographics. The objective of the prioritization is to repair the most significant barriers in the areas with the highest need or utilization by disabled users. The condition assessment of the existing facilities identified an estimated cost to remove all barriers and meet ADA standards of over \$184 Million.

In June 2018, the [City Council approved Ordinance No. 822](#), which added an additional \$20 annual Vehicle License Fee (VLF) to fund sidewalk maintenance and repair. Collection of the additional \$20 VLF started on March 1, 2019. This was estimated to collect approximately \$730,000 per year dedicated to funding repair and replacement of existing sidewalk. In November 2019, voter approval of Initiative I-976 eliminated the ability of jurisdictions to use VLF to fund Transportation Benefit Districts. As a result, the sidewalk repair and replacement program was put on hold pending resolution in the court system. In October 2020, the State Supreme Court overturned the initiative and the City was able to re-authorize and program the use of the VLF. Based on the timing of the court resolution, the funding was not included in the 2021-2022 adopted budget. In March 2021, [Council adopted Ordinance No. 926](#) to issue \$8.35 million in bonds to fund sidewalk rehabilitation and annual road surface maintenance programs utilizing the VLF as revenue.

In November 2018, Shoreline voters approved a 0.2% increase of the Sales and Use Tax for the construction of new sidewalk with a portion to fund repair for sidewalks. The tax was effective April 1, 2019. As part of the ballot measure, [twelve \(12\) specific locations](#) were identified for new sidewalks. Staff estimates all 12 projects will be completed within ten years of inception of this tax. As identified in the ballot measure, bonds will be issued to fund these improvements with the Sales and Use Tax revenue paying for the bonds over a 20-year period.

Staff last [updated the Council on the voter approved sidewalk program](#) in March 2019. This update addressed staffing, financial monitoring, program delivery, and issuance of bonds. At the same meeting, [Council adopted Ordinance Nos. 852 and 853](#) to authorize issuance of bonds and a budget amendment necessary to proceed with the program.

## **DISCUSSION**

### **2018 Voter Approved New Sidewalk Program**

Since the last update to the City Council, the new sidewalk program has made significant progress. The Council approved design contracts to be executed for the first three new sidewalk projects as well as the sidewalk implementation plan. A construction contract was awarded for the 1<sup>st</sup> Avenue NE (192<sup>nd</sup> – 195<sup>th</sup>) sidewalk project in June 2021 and the work was completed in fall 2021. The second sidewalk project - 5<sup>th</sup> Avenue NE (175<sup>th</sup> – 182<sup>nd</sup>) - is in the bidding phase and a construction contract award should be presented for Council consideration in early 2022. Finally, development of the implementation plan is complete, the results of which will be described in this Discussion section below.

### **New Sidewalk Design and Construction to Date**

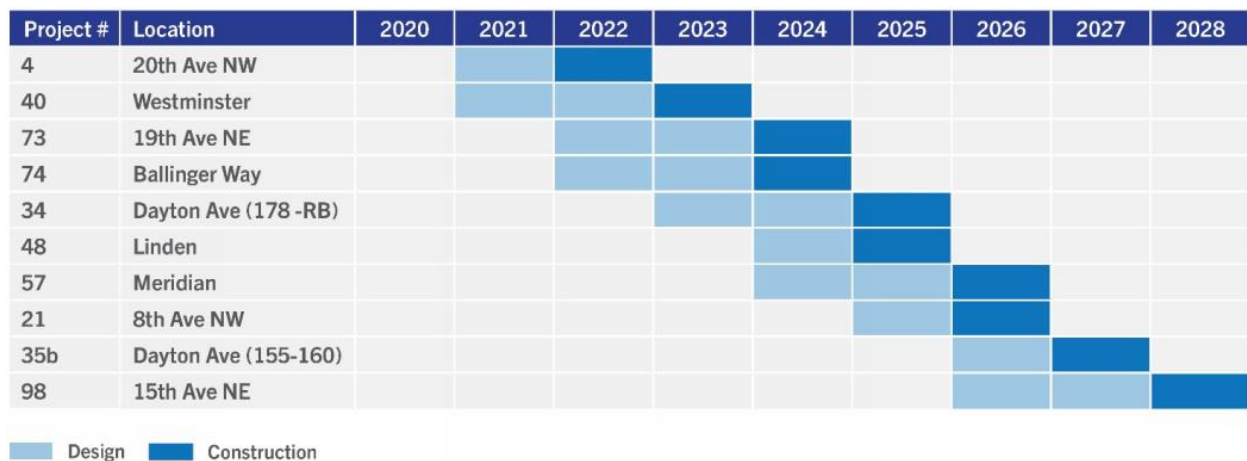
In summer 2021, construction of the first sidewalk project was completed. Sidewalk on 1<sup>st</sup> Avenue NE from NE 193<sup>rd</sup> Street to NE 195<sup>th</sup> Street utilizes pervious pavement for surface water management and includes an 11-foot sidewalk that incorporates the ability for bicyclists to use the sidewalk. This segment provides a direct connection to the 195<sup>th</sup> Connector and completes a gap in the sidewalk network on 1<sup>st</sup> Avenue NE.

Design of sidewalks on 5<sup>th</sup> Avenue NE is complete and construction is scheduled for spring 2022. Sidewalks and bike lanes will be built on both sides of 5<sup>th</sup> Avenue NE from NE 175<sup>th</sup> Street to near NE 182<sup>nd</sup> Court where it will connect to improvements completed by Sound Transit. These improvements will provide a direct connection for people moving both on bikes and walking to the new Shoreline North/185<sup>th</sup> Link Light Rail Station. The 5<sup>th</sup> Avenue NE improvements will also act as an on-street connection for the Trail Along the Rail. On this project the standard five-foot amenity zone was eliminated to preserve the maximum number of trees feasible, with 23 trees (reduced from an estimated 90 trees if the amenity zone were incorporated) expected to be removed in order to construct the sidewalk improvements.

In 2021, the design of the 20<sup>th</sup> Avenue NW sidewalk was started, and construction is scheduled for late 2022/early 2023. Sidewalk will be built on one side of 20<sup>th</sup> Avenue NW to connect people to Richmond Beach Saltwater Park and will be designed at the appropriate scale to provide safe facilities for users of all ages and abilities.

### **Program Development and Delivery**

In 2021, staff conducted an analysis on the 10 remaining sidewalk projects which included development of conceptual designs, cost estimates and a review of potential construction impacts. An Implementation Plan for these sidewalk projects, including conceptual designs, are included as Attachment A. With the results of the analysis, staff formulated a schedule of the remaining projects. Multiple considerations were accounted for when developing the project's schedule including opportunities to bundle projects, redevelopment potential, grant potential, project simplicity, priority scores and geographical equity. The design and construction schedule for the final 10 projects is shown in the following table with all of the sidewalk projects completed by 2028.



The program development also addressed communication and public outreach. As part of the implementation work, staff and consultants completed an update to the City's [main sidewalk webpage](#), which included a sidewalk program logo, introduction video, project schedule and an overall program frequently asked questions (FAQ) document. Staff also developed outreach goals for the program and reviewed options to achieve the program goals. Outreach goals will be reviewed and used to guide the scope and delivery of future sidewalk projects.

### ***Financial Monitoring***

As is noted above, the voter approved sidewalk projects are funded from a 0.2% increase in Sales and Use Tax. Revenue estimates for the tax have been reviewed and are tracking at a rate that supports previous estimates of a total generated revenue near \$57.5 million. The 12 sidewalk projects that will be funded from this revenue source are estimated to utilize approximate \$40.9 million of the revenue with debt interest payments to bond funding utilizing approximately \$12.6 million, totaling an estimated \$53.5 million. Assuming revenue and cost assumptions remain the same, this would leave a surplus of program funding of about \$4 million which may support one or two additional sidewalk projects in the years following 2028 when the initial 12 are completed. A detailed summary of project cost estimates and projection of Sales and Use Tax revenue can be found in Attachment B.

A more accurate idea of funding availability for additional sidewalk projects can be provided to the City Council in four to five years when more of the sidewalk projects have been constructed and there is better information on costs and schedule. Prioritization of any additional sidewalk projects should occur during the discussion and adoption of the Transportation Improvement Plan (TIP) and/or Capital Improvement Plan (CIP).

The program estimates include a 4% annual inflation rate and are based on the conceptual designs in the implementation plan which show the City's ideal cross sections for each of the projects. During the design phase for each project, ideas will be reviewed to reduce costs to ensure the City is able to deliver as many projects as possible.



### ***Timing and Issuance of Bonds***

All revenue generated by the Sales and Use Tax will be used for the repayment of debt. Staff issued an initial bond of \$11.6 million to cover the first projects and the timing and size of future bonds was further refined as a result of the schedule and estimates prepared. Additional bond ordinances will be needed to support future bond issuances. A preliminary review shows a need for a second bond of approximately \$19 million in 2024 and a third bond of \$10 million in 2027 to complete the 12 sidewalk projects. The timing and size of the future bonds will be refined as more sidewalk projects are constructed and revenue estimates are updated.

### ***Key Program Issues***

Staff has identified key program issues that should be reviewed carefully in the design phase for each of the sidewalk projects. Concept plans showed the need for walls, property acquisition, and tree impacts on many of the sidewalk projects to support the ideal width and location of sidewalks as defined in the Engineering Development Manual (EDM) and aligned with the City's Complete Streets ordinance. All sidewalk projects require careful balancing of multiple priorities from internal and external stakeholders including reducing (or eliminating) tree removals, minimizing property impacts, complying with complete streets ordinances, and designing improvements that meet long-term City goals (climate resilience, safety improvements, surface water upgrades, bicycle lanes, etc.).

### **Tree Impacts**

New sidewalks frequently impact existing trees in the right-of-way. Trees are important to the community and the environment. In recent outreach efforts, staff found that approximately 38% of public comments regard tree retention in sidewalk projects. Staff has implemented several steps to protect, preserve and retain trees to the extent practical. These steps (listed as sequential in a project design flow) include:

- Completing a detailed survey to get an accurate assessment of size, type, health and location of trees as related to the City's right-of-way and conceptual sidewalk improvements.
- Utilizing the City's Climate Action Tool to review urban heat islands in the vicinity of sidewalk projects.
- Concepts are presented in a public meeting, feedback is reviewed, and conceptual design is adjusted based on feedback.
- An arborist is retained to review potential tree impacts and provide information on the ability to protect and preserve trees and how to minimize damage to trees during sidewalk construction. The report and tree removal information are included on project web pages.
- Sidewalk design may be revised to reduce tree (and property) impacts where possible. Alternatives considered in minimizing impacts to trees while maintaining other project goals include, but are not limited to:
  - Eliminating/reducing sections of standard amenity zones,
  - Revising wall designs,
  - Adjusting roadway lane configurations,
  - Reviewing alternate sidewalk designs (elevate sections of the walkway, relocate sidewalk locations around trees, etc.), and

- Reducing sidewalk widths in short segments to go around trees.
- The revised design is then sent to the City's Urban Forester to complete a walkthrough to review tree impacts. Additional ideas for adjusting sidewalk design are reviewed and implemented wherever practical.
- Final design and bid documents include tree protection measures as recommended by the arborist.
- Trees that are required to be removed have signs placed on them 14 days prior to their scheduled removal, as required by the EDM.

#### Right-of-Way Acquisition and Walls

Several of the sidewalk routes have very steep slopes along the right-of-way where sidewalk improvements will be constructed (Dayton Avenue between 178<sup>th</sup> Street and Richmond Beach Road; Westminster Way between 145<sup>th</sup> and 153<sup>rd</sup>; Meridian Avenue N between 194<sup>th</sup> and 205<sup>th</sup>; Ballinger Way NE between 19<sup>th</sup> and 25<sup>th</sup>). These slopes are a physical constraint that will require either permanent or temporary easements, or in some cases, permanent acquisition of private property. Beyond the private property impacts, this will also represent a large financial burden to the sidewalk program. As these sidewalk projects move to the design phase, impacts will be carefully reviewed in a manner similar to tree impacts and will be minimized to the extent practical. Alternatives considered include everything discussed in the tree impacts section as well as careful review of unique wall designs by City staff and engineering consultants.

#### Sidewalk Widths

Sidewalk widths are established in the EDM, which is updated annually. Widths and locations are chosen to provide adequate comfort and safety for all users. City staff established standards for sidewalk widths based on two key documents and guidelines:

1. 2011 Public Rights-of-Way Accessibility Guideline (PROWAG). The PROWAG is developed by the US Access Board to develop guidelines under ADA standards. The PROWAG identifies a minimum sidewalk width of four (4) feet with a requirement for passing areas every 120 feet with a minimum of 5-foot width.
2. National Association of City Transportation Officials (NACTO)'s Urban Street Guide. The Urban Street Guide provides the guidance that "Sidewalks have a desired minimum through zone of six feet and an absolute minimum of five feet. Where a sidewalk is directly adjacent to moving traffic, the desired minimum is eight feet, providing a minimum 2-foot buffer for street furniture and utilities." A six-foot desired minimum through zone means that even if the sidewalk is wider than six feet to accommodate bicycle parking, benches, utility poles, tree pits, or other facilities such as this, the sidewalk should still have a minimum of six feet of width for pedestrians to move through.

Based on these two documents the City has established standards of 6-foot sidewalk in areas with single family homes and 8-foot in busier areas with non-single family residential areas. In both scenarios, a 5-foot amenity zone is required between the curb and the sidewalk. This provides a buffer between vehicles and pedestrians. At times, the amenity zones are eliminated where a buffer can be provided by a bike lane or wider sidewalk width.

NACTO's Urban Street Guide also states, "Sidewalk design should go beyond the bare minimums in both width and amenities. Pedestrians and businesses thrive where sidewalks have been designed at an appropriate scale, with sufficient lighting, shade, and street-level activity." In alignment with the City's Comprehensive Plan, Transportation Master Plan and Complete Streets ordinance, sidewalk standards have been established to develop an active transportation network that promotes livability and goes beyond minimum requirements in order to offer safe and easy travel options that will be utilized by residents and visitors and accommodate all modes of users.

In establishing standards, staff also reviewed sidewalk widths of other, neighboring jurisdictions. A few sidewalk width requirements for comparison include:

- Cities of Seattle and Redmond: 6 feet minimum
- City of Edmonds: 5-7 feet
- City of Kirkland: 5 feet w/ 4-1/2-foot amenity zone
- City of Bellevue: 5-6 feet (non-arterials)

While the City standards are consistent to the NACTO Urban Street Guide, modifications are allowed based on specific site conditions and constraints. The EDM supports and encourages flexibility specifically for the protection and preservation of trees.

### **Sidewalk Rehabilitation Program**

As noted earlier in this report, I-976 has delayed the development and implementation of the Sidewalk Rehabilitation Program. By the time the courts restored the authority to collect VLF for Transportation Benefit Districts, the 2021-2022 budget had been prepared and resources assigned to other projects.

### **Current projects and status**

Staff has been able to make limited progress by kicking off design for the rehabilitation of two routes:

- 15<sup>th</sup> Avenue NE from NE 160<sup>th</sup> Street to approximately NE 175<sup>th</sup> Street
- 5<sup>th</sup> Avenue NE from NE 165<sup>th</sup> Street to NE 175<sup>th</sup> Street

Both of these corridors serve bus routes and have significant barriers to access by disabled and other users. The primary barriers result from tree root damage but many curb ramps are also not in compliance with ADA standards. The 15<sup>th</sup> Avenue NE section is scheduled for construction in late 2022 and 5<sup>th</sup> Avenue NE will be constructed in 2023. The preliminary cost estimate for both routes is \$2,300,000.

The focus in 2021 has been to get the two above corridor projects into design. Looking at routes beyond these two has not been the priority. This will become a larger focus later in 2022 as progress is made on these projects. The ADA Transition Plan will serve as the backbone in making decisions for future locations. Appendix C of the Transition Plan laid out priorities for 2019-2024. With delays in the program, the years of work are not accurate but will serve as a starting point for 2022 and beyond.

## Key program issues

The two key issues for the sidewalk rehabilitation program, similar to new sidewalks, are trees and compliance with ADA standards.

### Trees

Effort is made to protect and preserve trees both in repairing sidewalks and retrofitting or installing new curb ramps. An arborist is utilized to assess the health of impacted trees, and the likelihood or alternatives to protect and retain the tree. Methods available to protect and preserve trees in the sidewalk rehabilitation are more limited as the sidewalk and tree location are already fixed. Options that are considered include:

- Root pruning and installation of a root barrier.
- Adjustment of the sidewalk location behind or away from the tree. This may require an easement to place the sidewalk on private property.
- Use grinding or other methods to eliminate small displacements in the sidewalk as a result of roots. This may be a short-term option as the tree roots will likely damage the sidewalk again within a few years.
- Ramping a sidewalk up and over tree roots.

These and other options will continue to be considered and evaluated as the program develops. Unfortunately, the damage caused by trees is often significant and the trees are too big for their current location. Many of the existing amenity zones (planter areas) are too narrow to support tree health. Assessing the health of the trees before and after construction is important for balancing the desire to protect trees with their overall survivability and is needed to limit the likelihood that the tree becomes a maintenance issue or hazard. Staff will also consult with the City's Urban Forester to evaluate the findings of the arborist and help identify other available alternatives.

The program looks to replace trees that are removed back in the project area in a way that considers the trees survivability. Amenity zone size and tree species are critical factors for determining survivability. Replacement trees are selected off the City's approved Street Tree List which includes provides guidance on amenity zone width.

### ADA Compliance

The 2011 PROWAG does not provide guidance on existing sidewalks and maintenance practices. For guidance on existing pedestrian facilities, the EDM adopts the 2010 ADA Standards for Accessible Design (2010 ADA), which is the current adopted federal standard for ADA facilities.

The general requirements are broken down into those projects/facilities built before or after March 15, 2012. These are defined as follows:

#### *Altered Facilities (prior to March 15, 2012):*

**Clear Width - 4.2.1\* Wheelchair Passage Width.** The minimum clear width for single wheelchair passage shall be 32 in (815 mm) at a point and 36 in (915 mm) continuously

Altered Facilities (March 12, 2012) may follow the 2010 ADA Standards:

**403.5.1** Clear Width. Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum.

These are minimum standards for pedestrian accessibility that must be provided. Initially, staff will seek to at least match existing sidewalk width. When retrofitting or replacing existing sidewalks, staff works to balance providing a standard minimum sidewalk width of six (6) feet where the existing sidewalk width is typically less than six feet; impacts and opportunities to protect trees; and meet ADA standards.

In areas where the sidewalk width has been reduced around a tree, the section will be evaluated to see if it meets the minimum ADA standard described above. If the tree needs to be removed (due to tree health or location), then the replaced sidewalk will match the width of the adjacent sidewalk segments. As this program develops, staff intends to develop better guidance and direction on how to manage specific circumstances.

### **Sidewalk Prioritization Plan Update**

The Sidewalk Prioritization Plan was developed on the best available data at the time, which was 2015 and 2016 data. The safety and demographic data utilized in the plan development is periodically updated. As a result, there is an on-going need to review and update this data in the Sidewalk Prioritization Plan. As staff is still in the early phases of implementing 2018 Voter Approved New Sidewalk Program, the 12 projects in the ballot measure will be the first area of focus before adding additional routes based on the current or an updated prioritization plan.

In response to Council questions and requests for a Sidewalk Prioritization Plan, staff prepared a memo in May 2021 (Attachment C) which expressed staff's commitment to refresh the data and scoring in 2023. This refresh would utilize the same criteria of Safety, Equity, Proximity and Connectivity but will refresh the data for these criteria. The results of this reprioritization could be used to identify future allocation of the Sales and Use Tax after the initial 12 sidewalk projects are completed.

The Transportation Master Plan (TMP) currently being drafted is scheduled for adoption in 2022. The current prioritization criteria and results was an early work item of the 2022 TMP effort. A review of the criteria for prioritization will be conducted with the next update to the TMP in 2031. This would allow additional outreach and feedback from the community in determining criteria and priorities.

### **COUNCIL GOAL(S) ADDRESSED**

The sidewalk programs support City Council Goal No. 2: Continue to deliver highly valued public service through management of the City's infrastructure and stewardship of the natural environment.

### **RESOURCE/FINANCIAL IMPACT**

There is no resource or financial impact associated with tonight's discussion. The voter approved new sidewalk program and sidewalk rehabilitation program are both currently

funded by bonds with Sales and Use Tax and Vehicle License Fees providing the revenue for the respective programs.

### **RECOMMENDATION**

No action is required; this item allows staff to update the Council on the development and implementation of the new sidewalk and sidewalk rehabilitation programs and provides Council an opportunity to ask questions or seek clarifications from staff

### **ATTACHMENTS**

- Attachment A: New Sidewalk Implementation Plan Final Report, including Concept Plans for Voter Approved Sidewalk Projects
- Attachment B: Voter Approved Sidewalk Program Financial Implementation Plan
- Attachment C: Sidewalk Prioritization Plan Update Memo (May 2021)



# New Sidewalk Implementation Plan

December 13, 2021 | Final Report







# New Sidewalk Implementation Plan

December 13, 2021

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- Appendix A – Preliminary Drawings
- Appendix B – Preliminary Cost Estimates

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# 1. Background and Introduction

In March 2017, the City of Shoreline began a year-long process to create a Sidewalk Prioritization Plan as directed by Council. As part of that work, the City created a Sidewalk Advisory Council in June 2017 to develop a data-driven system for prioritizing sidewalk projects. This work resulted in the “2018 Sidewalk Prioritization Plan”. In November 2018, residents approved a ballot measure to help fund 12 new priority sidewalk projects. Two of the priority sidewalk projects are under construction in 2021 (1st Avenue and 5th Avenue). The remaining 10 projects are included in this implementation plan and are listed in Table 1-1 and shown on the map in Figure 1-1.

**Table 1-1: Project List**

Project #	Location	Limits
4	20th Ave NW	Saltwater Park to NW 195th Street
21	8th Ave NW	Sunset Park to Richmond Beach Road
34	Dayton Ave N	N 178th Lane to N Richmond Beach Road
35b	Dayton Ave N	N 155th Street to N 160th Street
40	Westminster Way N	N 145th Street to N 153rd Street
48	Linden Ave N	N 175th Street to N 185th Street
57	Meridian Ave N	N 194th Street to N 205th Street
73	19th Ave NE	NE 196th Street to 244th Street SW
74	Ballinger Way NE	19th Avenue NE to 25th Avenue NE
98	15th Ave NE	NE 150th Street to NE 160th Street

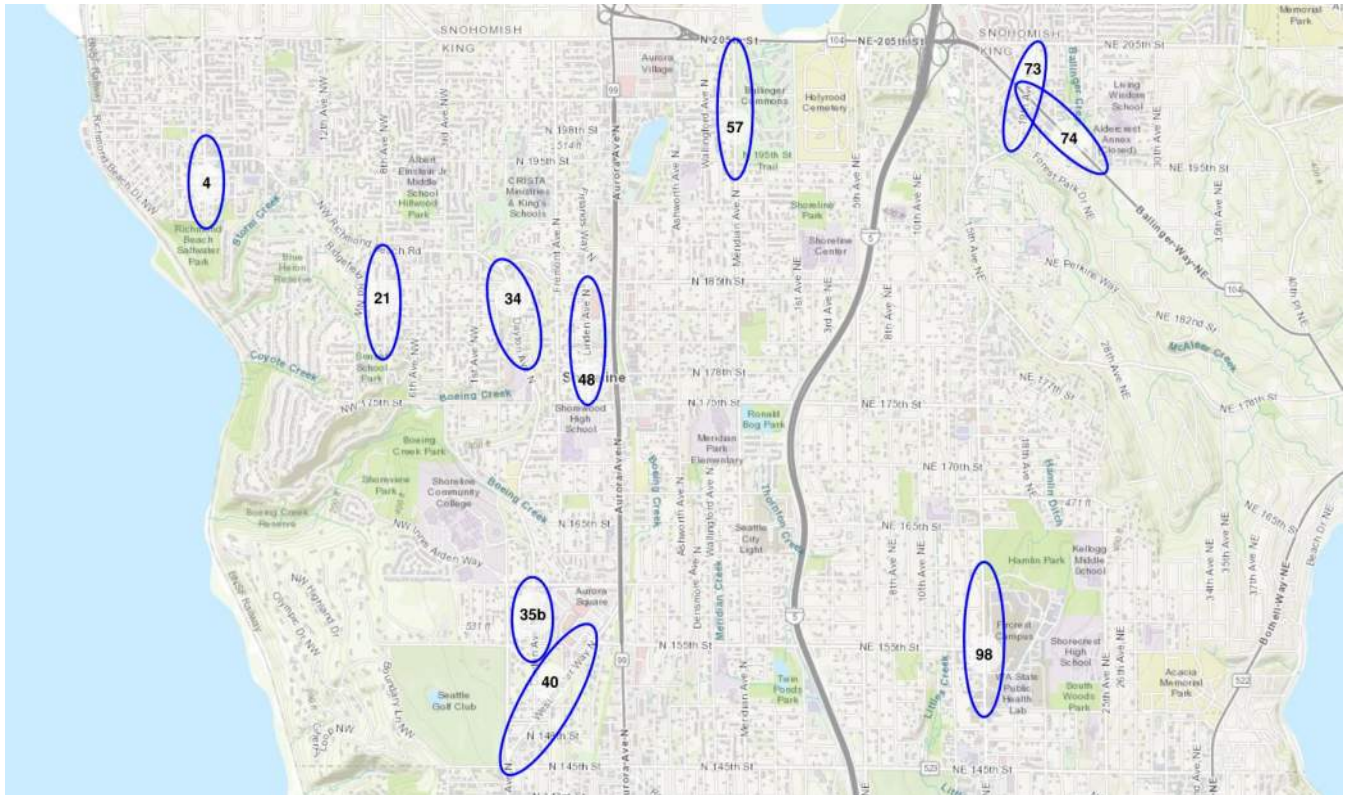


Figure 1-1: Project Map

This Shoreline “New Sidewalk Implementation Plan” (the “Implementation Plan”) represents the next step in completing the 2018 voter approved sidewalk program. The scope of the “Implementation Plan” includes:

- Preliminary design and cost estimates for the 10 remaining sidewalk projects.
- Creation of scoring criteria and evaluation of projects to determine preferred implementation order.
- Develop a timeline for design and construction.

## 2. Policy Documents

The following City of Shoreline policy documents supported the advancement of this project:

- The “2018 Sidewalk Prioritization Plan” adopted by Council is the City’s roadmap for prioritizing the construction of a continuous, citywide sidewalk network.
- “Pedestrian System Plan” is part of the City’s *2011 Transportation Master Plan* and identifies new sidewalks along key arterials in order to provide pedestrian access from neighborhoods to city activities, schools, and other destinations.
- “ADA Transition Plan” is an ongoing survey of existing sidewalk conditions in an effort to guide sidewalk repairs to ensure safety and accessibility for all users.
- “Engineering Development Manual” is a supplement to the *Shoreline Municipal Code* and includes guidelines and standard plans for sidewalk and roadway design.



### 3. Preliminary Design

The City provided the design team with basic typical section widths for each project site. This information included the desired sidewalk location (side of the street), bicycle accommodation, amenity zones, and other site-specific considerations. The design team used this information to create draft figures showing the City's desired facilities, and assess significant impacts and challenges such as impacts to right-of-way (ROW), utilities, trees, and the need for retaining walls. The City and design team then held a design charrette to walk through each concept and discuss the challenges, costs, and identify needed design refinements.. The resulting preliminary design figures are included in Appendix A. Each project is discussed in more detail below.

#### **DESIGN ASSUMPTIONS AND BACKGROUND INFORMATION**

- A topographic survey of the existing site features was not performed. The preliminary design used GIS files provided by the City that showed approximate edges of pavement, ROW, trees, contours, and utility poles. Additional information was collected from aerial photography, field observations, and online mapping sources.
- The typical sections, including widths of travel lanes, bicycle lanes, amenity zones, and sidewalks were determined with close coordination and direction from City staff. The final design team may identify justifiable reasons to alter the typical sections and should coordinate changes with the City.
- Approximate wall locations and heights are shown in the preliminary design figures. These were based on 2-foot contours provided by the City, field observations, and conservative engineering judgement. Actual site conditions may require changes to the size and locations of walls.
- The City promotes the use of permeable sidewalk and other LID stormwater solutions. A geotechnical investigation was not conducted as part of this study, but permeable sidewalk was included in the cost estimates for all projects. A geotechnical investigation should be included in the final design phase to determine the feasibility of infiltration at each site.
- Paving limits are not shown on the preliminary design figures, but for costs purposes it was assumed that 2 feet of full depth pavement will be needed along all new curb lines. The Hot Mix Asphalt (HMA) area was increased by 20% to cover the potential of additional paving that may be needed.

## 4. Site Summaries

### PROJECT NO. 4

**Location:** 20th Avenue NW (Saltwater Park to NW 195th Street)

**Project Length:** 1,330 feet

**Project Cost Estimate:** Alternative A - \$ 1,312,000  
Alternative B - \$ 502,000

**Project Description:** A new shared-use path along 20th Avenue NW is proposed on the west side of 20th Avenue NW between NW 190th Street and NW 195th Street. The existing pavement section has an approximate width of 25 feet. Street parking on the west side will need to be removed for the new path and the roadway will be re-stripped to provide two 10' travel lanes and a minimal east side shoulder. The new shared-use path will be constructed per one of the following alternatives:

- **Alternative A** – New concrete curb and gutter with adjacent concrete sidewalk
- **Alternative B** – Asphalt path adjacent to the existing roadway with an extruded curb separating the walkway from vehicle travel lanes.

#### Proposed Section:

- Two 10-foot travel lanes
- 10-foot shared-use path or sidewalk on the west side of road

#### Potential Final Design Challenges:

##### Utilities

There are utility poles carrying overhead power distribution lines along the west edge of pavement that will need to be relocated to the back of sidewalk for completion of this work.

##### Trees

There are several mature trees near the ROW, along the back of the proposed sidewalk. An arborist should be consulted in final design to assess if these trees can be saved by avoiding/minimizing impacts to the critical root zone.

##### ROW

No ROW impacts are anticipated in this project.

##### Transit

No impacts to existing transit routes are anticipated in this project.

##### Stormwater

There is currently no existing stormwater infrastructure on 20th Avenue NW, however stormwater facilities will be required for the proposed construction. The concept-level designs propose approximately 12,900 square feet of new sidewalk. It is anticipated that this work will trigger flow control and water quality stormwater mitigation, and the need for additional catch basins and stormwater conveyance. A geotechnical investigation

should be completed to determine the feasibility of infiltration within the project site, and the use of permeable sidewalk and other infiltration Best Management Practices (BMPs) should be explored and implemented to extent feasible.

The City currently has plans to construct an infiltration gallery within the project limits, on the east side of 20th Avenue NW. Combining these projects into one construction contract should be explored.

#### General

The topography on Site No. 4 is generally flat along the back of proposed sidewalk. The concept-level design and site analysis do not anticipate a need for walls; however, thickened edge sidewalk may be needed if slopes cannot be kept within the ROW.

### **PROJECT NO. 21**

**Location:** 8th Avenue NW (NW 180th Street to NW Richmond Beach Road)

**Project Length:** 1,950 feet

**Project Cost Estimate:** \$ 1,948,000

**Project Description:** A new sidewalk and amenity strip is proposed on the east side, and bike lanes in both directions are proposed on 8th Avenue NW between NW 180th Street to NW Richmond Beach Road. The existing pavement section has an average width of approximately 30 feet. It is anticipated that pavement widening will be needed on the west side to accommodate the southbound bike lane.

#### **Proposed Section:**

- Two 10-foot travel lanes
- Two 5-foot bike lanes
- 5-foot amenity strip (east side of road)
- 6-foot sidewalk (east side of road)

#### **Potential Final Design Challenges:**

##### Utilities

There are no apparent utility pole impacts anticipated in this project. Further investigation is needed to determine the location of subsurface utilities, and potential impacts from proposed storm facilities.

##### Trees

There are mature trees within the City ROW, along the back of the proposed sidewalk. The preliminary drawings show potential areas where elimination of proposed amenity strip is recommended to mitigate significant tree impacts.

##### ROW

There are no ROW impacts anticipated in this project.

##### Transit

No impacts to existing transit routes are anticipated in this project.

Stormwater

There is an existing trunk line with catch basins collecting runoff along the east side of 8th Avenue NW. This line flows north until it meets a trunk line in NW Richmond Beach Road. There is currently no stormwater system along the west side of 8th Avenue NW south of NW 185th Street. Methods for stormwater catchment, conveyance, or infiltration will need to be further investigated in design. There are catch basins and cross-connections along 8th Avenue NW north of NW 185th Street, which may need to be relocated to accommodate proposed curblines.

The preliminary design propose approximately 13,000 square feet of new sidewalk. It is anticipated that this work will trigger flow control and water quality stormwater mitigation, and the need for additional catch basins and storm pipes. A geotechnical investigation should be completed to determine the feasibility of infiltration within the project site, and the use of permeable sidewalk and other infiltration BMPs should be explored.

General

There is a major intersection at the north end of the project site, where 8th Avenue NW intersects NW Richmond Beach Road; no modifications are proposed for this intersection. A bicycle ramp shall be provided for the northbound movement to allow bicycles to access a multi-use path.

The topography at this location is generally flat along the back of proposed sidewalk. The concept-level designs and site analysis do not anticipate a need for walls; however, thickened edge sidewalk or curb walls may be needed if slopes cannot be kept within the ROW.

**PROJECT NO. 34**

**Location:** Dayton Avenue N (North 178th Lane to North Richmond Beach Road)

**Project Length:** 2,360 feet

**Project Cost Estimate:** \$ 4,619,000

**Project Description:** A new shared-use path along the west side and a new sidewalk along the east side are proposed on Dayton Avenue N between just north of N 178<sup>th</sup> Lane to North Richmond Beach Road. The existing pavement section has an approximate width of 32 feet. Street parking and shoulders on both sides of Dayton Avenue N will need to be eliminated to make space for the shared-use path and sidewalk.

**Proposed Section:**

- Two 11-foot travel lanes
- 12-foot shared-use path (west)
- 6-foot sidewalk (east)

**Potential Final Design Challenges:**Utilities

There are utility poles along the east and west edges of pavement that will need to be relocated to the ROW line for completion of the work. Further investigation is needed to determine the location of subsurface utilities, and potential impacts from proposed storm facilities.

Trees

There are several mature trees within the City ROW, on both sides of the road. Design options should be considered to minimize impacts to trees, if feasible.

ROW

No ROW impacts are anticipated in this project.

Transit

There are two King County Metro bus routes, Nos. 304 and 331, that run north and south along Dayton Avenue N to service four stops within the project corridor. Construction of this project will impact bus service and bus stop facilities. Coordination with King County Metro will be needed.

Stormwater

There is an existing trunk line with limited catch basin collection along the west side of Dayton Avenue N, which flows south until crossing the Saint Luke Church and School parcel into Boeing Creek. There is currently no stormwater catchment or conveyance along the east side. Catch basins will be recommended on both sides to accommodate the new curb lines.

The preliminary design proposes approximately 32,000 square feet of new sidewalk. It is anticipated that this project will trigger flow control and water quality mitigation, and the need for additional stormwater catch basins and stormwater conveyance. A geotechnical investigation should be completed to determine the feasibility of infiltration within the project site, and the use of permeable sidewalk and other infiltration BMPs should be explored.

General

There is one major intersection at the north end of the site at Dayton Avenue N and North Richmond Beach Road. Improvements will be designed to avoid reconfiguration of the crosswalks, signals, and channelization of this intersection. Modifications to this intersection for pedestrian safety improvements may be part of a future project.

The topography of the site is generally slopes upward on west side and downward on east. There will be a significant need for cut and fill walls, potentially up to 10-feet in height.

There will be several driveway impacts for construction of proposed sidewalk on this site. Design of driveway profiles will be challenging due to steep grades and close proximity of houses.

**PROJECT NO. 35B**

**Location:** Dayton Avenue N (North 155th Street to North 160th Street)

**Project Length:** 1,330 feet

**Project Cost Estimate:** \$ 1,339,000

**Project Description:** A new sidewalk is proposed along the west side of Dayton Avenue N between North 155th Street and North 160th Street. The existing roadway section and channelization will be maintained.

**Proposed Section:**

- Maintain existing channelization

- 8-foot sidewalk (west)

### **Potential Final Design Challenges:**

#### Utilities

There are utility poles carrying overhead power distribution lines along the west edge of pavement that will need to be relocated closer to the ROW for completion of this work.

The survey shown in WSDOT's "Region Headquarters (RHQ) Building Renovation Plans" indicates underground gas, sewer, and water along the west side of Dayton Avenue N that will need to be verified in the design phase of this project.

#### Trees

There are several mature trees within the City ROW, along the back of the proposed sidewalk. The preliminary design was laid out to minimize tree impacts, but care should be taken during final design to avoid impacts to trees and their root systems, if possible.

#### ROW

No ROW impacts are anticipated in this project.

#### Transit

There are three King County Metro bus routes, Nos. 5, 304, and 345, and two bus stops, which run north and south along Dayton Avenue N within the project limits. Final design of the bus stops and impacts to bus service during construction will need to be coordinated with King County Metro.

#### Stormwater

There is currently no stormwater infrastructure on Dayton Avenue N. Dayton Avenue N roadway grade slopes from North 155th Street toward North 160th Street, where there is an existing stormwater trunk line. Catch basins and storm pipes will be required for this project in order to convey runoff to the existing trunkline in North 160th Street.

The preliminary designs propose approximately 10,200 square feet of new sidewalk. It is anticipated that this work will trigger flow control and water quality stormwater mitigation, and the need for additional catch basins and storm pipes. A geotechnical investigation should be completed to determine the feasibility of infiltration within the project site, and the use of permeable sidewalk and other infiltration BMPs should be explored.

#### General

The topography of the site generally slopes upward from the edge of pavement to the west. The concept-level design proposes a combination of curb wall, thickened edge sidewalk, and walls up to three feet in height.

## **PROJECT NO. 40**

**Location:** Westminster Way N (North 145th Street to North 153rd Street)

**Project Length:** 2,740 feet

**Project Cost Estimate:** \$ 4,210,000

**Project Description:** Construction of a new shared-use path on the west side of Westminster Way N between North 145th Street and North 153rd Street. In addition, the project will realign the intersection of

Greenwood Avenue N to provide additional pedestrian space and shorten the crosswalk length as shown in the concept figure. The intersection should be designed to accommodate the 60-foot King County Metro articulated bus.

This project may be extended north in the future, to connect the shared use path at the North 155th Street intersection.

#### **Proposed Section:**

- Maintain existing channelization
- 10- to 12-foot shared-use path (west)

#### **Potential Final Design Challenges:**

##### Utilities

There are utility poles along the west side of the road that will need to be relocated for completion of this work. There is limited space available between the back of the new path and ROW line. The poles may need to be moved to the east side or undergrounded. Further investigation is needed to determine the location of subsurface utilities, and potential impacts from proposed storm facilities.

Signal poles and pedestrian push buttons at the N 145<sup>th</sup> Street and Dayton Avenue N intersections will likely need to be relocated.

##### Trees

There are several mature trees within the City ROW, along the back of the proposed sidewalk. The preliminary design was laid out to minimize tree impacts, but care should be taken during final design to avoid impacts to trees and their root systems, if possible.

##### ROW

Permanent ROW acquisition is anticipated for the construction of retaining walls behind the shared-use path proposed on the northwest side of Westminster Way N, between North 148th Street and North 149th Street. The preliminary design proposes to reduce the shared-use path from a 12-foot width to a 10-foot width along this segment to minimize the potential acquisition need. The preliminary design estimates that approximately 1,460 square feet of acquisition may be needed for construction of the project.

##### Transit

No impacts to existing transit routes are anticipated in this project.

##### Stormwater

There are existing trunk lines and associated collection along both sides of Westminster Way N. Southwest of North 148th Street, stormwater drains to a discharge on the west side of Greenwood Avenue N. And northeast of North 148th Street, stormwater drains north to an outfall on North 160th Street. Additional catch basins and conveyance pipes may be needed to order to accommodate the new curb line proposed along the west side of Westminster Way N.

The preliminary design proposes approximately 30,900 square feet of new hard surface. It is anticipated that this work will trigger flow control and water quality stormwater mitigation. A geotechnical investigation should



be completed to determine the feasibility of infiltration within the project site, and the use of permeable sidewalk and other infiltration BMPs should be explored.

#### General

There are steep slopes and existing walls that run along the west side of the road in some locations. It is anticipated that walls up to 6' in height may be needed near the north end of the project.

### **PROJECT NO. 48**

**Location:** Linden Avenue N (North 175th Street to North 185th Street)

**Project Length:** 2,650 feet

**Project Cost Estimate:** \$ 2,540,000

**Project Description:** Construction of a new sidewalk with amenity strip is proposed on the west side of Linden Avenue N between North 175th Street and North 185th Street. The existing pavement section has an approximate width of 23 feet. The project will also include pavement widening and rechannelization to maintain on-street parking on the west side of the road.

#### **Proposed Section:**

- Two 10-foot travel lanes
- One 7-foot parking area (west)
- 5-foot amenity strip (west)
- 6-foot sidewalk (west)

#### **Potential Final Design Challenges:**

##### Utilities

There are no anticipated impacts to utility poles on the corridor. Further investigation is needed to determine the location of subsurface utilities, and potential impacts from proposed storm facilities.

##### Trees

There are several sections of trees that may be impacted by this project as shown on the concept plan. New street trees in the proposed amenity strip should be considered during final design.

##### ROW

No impacts to ROW are anticipated in this project.

##### Transit

No impacts to existing transit routes are anticipated in this project.

##### Stormwater

There are two conveyance systems on Linden Avenue N. The systems leave the site at N 179<sup>th</sup> Street and south of N 178<sup>th</sup> Street, and ultimately flow west to a trunkline on Fremont Ave N. New catch basins and pipes that tie-into these systems will likely be needed to accommodate the new curbline on the west side of Linden Ave N.

The preliminary design proposes approximately 16,000 square feet of new hard surfaces. It is anticipated that this work will trigger flow control and water quality stormwater mitigation. A geotechnical investigation should be completed to determine the feasibility of infiltration within the project site and the use of permeable sidewalk and other infiltration BMPs should be explored.

#### General

The topography on Site No. 48 is generally flat with a slight downward slope on the west side. Thickened edge sidewalk or small fill walls will likely be needed at some locations.

### **PROJECT NO. 57**

**Location:** Meridian Avenue N (North 194th Street to North 205th Street)

**Project Length:** 2,810 feet

**Project Cost Estimate:** \$ 3,432,000

**Project Description:** New sidewalk on the east side of Meridian Avenue N from North 195th Street to North 205th Street. In addition, the existing two-way left turn lane will be eliminated and the roadway will be rechannelized with narrower travel lanes and buffered bike lanes. The existing pavement section has an approximate width of 40 feet.

#### **Proposed Section:**

- Two 11-foot travel lanes
- Two 5-foot bike lanes with two-foot buffers
- 6-foot sidewalk (east)

#### **Potential Final Design Challenges:**

##### Utilities

There are utility poles on the east side of the road that will be impacted by this project and will need to be relocated to the back of the new sidewalk. Further investigation is needed to determine the location of subsurface utilities, and potential impacts from proposed storm facilities

##### Trees

Tree impacts on the east side of the project are likely, care should be taken during the final design to minimize impacts to mature trees and their root systems.

##### ROW

Permanent ROW acquisition is anticipated for the construction of walls behind the proposed sidewalk on the east side of Meridian Avenue N, north of North 199th Street. The preliminary design anticipates approximately 11,000 square feet of acquisition from the adjacent property owned by King County Housing Authority.

##### Transit

There are two bus routes that will be impacted by this work. The King County Metro route No. 331 and Community Transit route No. 130 share six stops along this corridor. The design of these bus stops and impacts to service during construction will need to be coordinated with the respective transit agencies.

Community Transit has future plans to route the Swift Blue Line on Meridian between N185th Street and N 200<sup>th</sup> Street to access the Shoreline North light rail station, however there will be no stops on Meridian.

## Stormwater

There is an existing trunk line on the east side of Meridian Avenue N that flows north, turns east at N 205<sup>th</sup> Street, and discharges into a detention pond at the north end of the King County Housing Authority Parcel. New catch basins and pipes will likely be needed at the new curblin on the east side and connect to the existing trunkline. An evaluation of pipe capacity in the existing system and affects to the detention pond will be needed.

The preliminary design proposes approximately 18,000 square feet of new hard surface. It is anticipated that this work will trigger flow control and water quality stormwater mitigation. A geotechnical investigation should be completed to determine the feasibility of infiltration within the project site and the use of permeable sidewalk and other infiltration BMPs should be explored.

## General

At the intersection with North 205th Street, a bicycle ramp should be provided to allow riders to use the sidewalk and crosswalks. New sidewalk in this area should have a 10-foot minimum width.

The topography of the site is generally sloped behind the east edge of the existing roadway. The preliminary design identified the need for several walls up to seven feet in height and thickened edges to support the new sidewalk.

The concept-level design proposes uninterrupted bike lanes at the outside edges of northbound and southbound traffic until the intersection at North 205th Street. The additional 14-foot width requires significant widening at intersections. Subsequent design may consider alternative bike lane treatments at intersections in order to mitigate wall and property acquisition costs.

## **PROJECT NO. 73**

**Location:** 19th Avenue NE (NE 196<sup>th</sup> Street to 244th Street SW)

**Project Length:** 2,210 feet

**Project Cost Estimate:** \$ 2,037,000

**Project Description:** Construction of sidewalk segments to replace and/or fill gaps on the west side of 19th Avenue NE from Forest Park Drive to 244th Street. The new sidewalk will be located adjacent to the existing edge of pavement; changes to the roadway channelization are not anticipated.

### **Proposed Section:**

- 6- to 8-foot sidewalk (west)
- Maintain existing channelization

### **Potential Final Design Challenges:**

## Utilities

There are utility poles on the west side of the road that will be impacted by this project and will need to be relocated to the back of the new sidewalk. Further investigation is needed to determine the location of subsurface utilities, and potential impacts from proposed storm facilities

#### Trees

There are several mature trees within the City ROW along the back of the proposed sidewalk. The preliminary design was laid out to minimize tree impacts, but care should be taken during final design to avoid impacts to trees and their root systems, if possible.

#### ROW

Temporary construction easements may be needed for connection of proposed sidewalk to existing walkways and for driveway reconstruction.

#### Transit

No impacts to existing transit routes are anticipated in this project.

#### Stormwater

There are existing trunk lines on either side of 19th Avenue NE. Storm drainage north of Ballinger Way NE drains to a trunk line on Ballinger Way NE; storm drainage south of Ballinger Way NE drains to McAleer Creek, south of the site. Catch basins and pipes may need to be modified in areas where new curblines are proposed.

The preliminary designs propose approximately 14,200 square feet of new sidewalk. It is anticipated that this work will trigger flow control and water quality stormwater mitigation, and the need for additional catch basins and storm pipes. A geotechnical investigation should be completed to determine the feasibility of infiltration within the project site and the use of permeable sidewalk and other infiltration BMPs should be explored.

#### General

The intent of this project is to avoid major impacts to the signal system at 19th Avenue NE and Ballinger Way NE. However, new curb returns and ramps are proposed at the intersection and may require modifications to the pedestrian push buttons and signal heads to make them ADA compliant. Ballinger Way NE (SR 104) is managed by WSDOT and the proposed changes will require coordination.

The terrain in this area is relatively flat; however, there is a steep slope and rockery north of NE 199th Street that may require replacement with a new wall.

The City prefers this project is packaged with Site 74, Ballinger Way North.

### **PROJECT NO. 74**

**Location:** Ballinger Way NE (19th Avenue NE to 25th Avenue NE)

**Project Length:** 2,200 feet

**Project Cost Estimate:** \$ 4,088,000

**Project Description:** Construction of a multi-use path is proposed on the west side of Ballinger Way NE with amenity strip where there is sufficient ROW. The existing channelization will be maintained; however, the proposed curb line will be shifted into the existing roadway at some locations in order to keep the path within the ROW. The existing pavement section width is approximately 46 feet.

**Proposed Section:**

- 12-foot multi-use path (south)
- Maintain existing channelization

**Potential Final Design Challenges:**Utilities

There are power poles on the west side of the road carrying Seattle City Light (SCL) transmission lines. At the north end of the project, near 19th Avenue NE, the poles are near the ROW and may avoid impacts from the new shared-use trail. At the south end of the project, between 23rd Avenue NE and 25th Avenue NE, poles are closer to the road and will need to be relocated. Further investigation is needed to determine the location of subsurface utilities, and potential impacts from proposed storm facilities

Trees

There are significant trees that will be impacted by this work. The preliminary design was laid out to minimize tree impacts, but care should be taken during final design to avoid impacts to trees and their root systems, if possible.

ROW

The proposed multi-use path crosses over the ROW line at three parcels between 19th Avenue NE and 23rd Avenue NE. Consider reducing the path width to 10 feet in these areas to minimize ROW acquisition.

Permanent ROW acquisition is anticipated for the construction of walls behind the shared-use path on the south side of Ballinger Way NE on either side of 23rd Avenue NE. The preliminary design anticipates the need of approximately 1,960 square feet of acquisition for construction of this project.

Transit

There are two King County Metro bus routes, Nos. 331 and 342, that run on the corridor and two southbound bus stops that will be affected by the project. Final design of the bus stops and impacts to bus service during construction will need to be coordinated with King County Metro.

Stormwater

There are existing trunk lines on either side of Ballinger Way NE. West of 23rd Avenue NE, stormwater discharges to Ballinger Creek; east of 23rd Avenue NE, stormwater drains into a conveyance system at 25th Avenue NE. Catch basins and pipes may need to be modified in areas where new curblin is proposed.

The preliminary design propose approximately 25,300 square feet of new sidewalk. It is anticipated that this work will trigger flow control and water quality stormwater mitigation. A geotechnical investigation should be completed to determine the feasibility of infiltration within the project site and the use of permeable sidewalk and other infiltration BMPs should be explored.

General

Ballinger Way NE (SR 104) is managed by WSDOT and the proposed improvements will require coordination. The project will avoid major impacts to the signal system at 19th Avenue NE and Ballinger Way NE. However, new curb returns and ramps are proposed at the intersection and may require modifications to the pedestrian push buttons and signal heads to make them ADA compliant.

There are steep slopes on the west side of the road between 23rd Avenue NE and 25th Avenue NE and cut walls will be needed at the back of the shared-use path. A geotechnical investigation and structural assessment should be made to determine the best wall type options for this location. The proximity of the ROW to the back of new path and the potential for permanent wall easements should be taken into consideration when selecting the wall type.

The City prefers that this project is packaged with Project No. 73, 19th Avenue NE.

## **PROJECT NO. 98**

**Location:** 15th Avenue NE (north of NE 150th Street to NE 160th Street)

**Project Length:** 2,730 feet

**Project Cost Estimate:** \$ 5,140,000

**Project Description:** Construction of a sidewalk is proposed on the east side of 15th Avenue NE in addition to rechannelization of the existing pavement markings to add northbound and southbound bike lanes between NE 150th Street and NE 160th Street. The sidewalk will be located at the existing edge of pavement; however, there is an option to route a segment of the sidewalk further east onto Fircrest State Hospital property to reduce tree removals. The existing pavement section is approximately 44 feet.

### **Proposed Section:**

- Maintain existing channelization
- 8-foot sidewalk (east side)

### **Potential Final Design Challenges:**

#### Utilities

Power poles are located on the east side of the road and will be impacted by the sidewalk construction. Coordination with SCL will be needed to relocate the poles to the back of the new sidewalk. Further investigation is needed to determine the location of subsurface utilities, and potential impacts from proposed storm facilities

#### Trees

The proposed sidewalk will likely impact a significant number of trees within City ROW. The final design should investigate ways to minimize impacts to these trees and their root systems. An arborist assessment of potentially affected trees is recommended to inform the final layout of the sidewalk.

#### ROW

Permanent ROW acquisition is anticipated for the construction of walls behind the sidewalk proposed on the east side of 15th Avenue NE, for the full length of the project. However, due to the likelihood of development on this corridor, potential ROW acquisition costs have not been included in the project cost.

#### Transit

There are four King County Metro Bus routes, 330 and 348, that run on the corridor and four bus stops that will be affected by the project. Final design of the bus stops and impacts to bus service during construction will need to be coordinated with King County Metro.

Stormwater

There is an existing trunk line on the east side of 15th Avenue NE that may be impacted by the proposed curbline. The trunkline carries stormwater south to NE 145th Street.

The preliminary design propose approximately 25,000 square feet of new sidewalk. It is anticipated that this work will trigger flow control and water quality stormwater mitigation, and the need for additional catch basins and storm pipes. A geotechnical investigation should be completed to determine the feasibility of infiltration within the project site and the use of permeable sidewalk and other infiltration BMPs should be explored.

General

Several existing rock walls and steep slopes exist on the east side of the road and new walls will be required at the back of the proposed sidewalk.

## 5. Project Criteria and Scoring

The City has developed the scoring criteria listed below that focuses on maximizing outside funding opportunities and incorporating priorities from the “Sidewalk Prioritization Plan”. The Projects were then evaluated and scored to create a recommended order of implementation.

### **OPPORTUNITY TO BUNDLE PROJECTS**

Bundling sidewalk projects with other City capital improvement projects will minimize disruption to nearby residents by reducing the length of construction. A sidewalk project will be moved earlier in the timeline if it can be bundled with another City project planned for near-term completion including other sidewalk projects.

### **REDEVELOPMENT POTENTIAL**

Sidewalk projects that are located adjacent to parcels likely to get redeveloped will be pushed to later in the timeline due to the benefit/potential of developers building sidewalk for the City along their frontage.

### **GRANT POTENTIAL**

If a project has potential for grant funding, it will be pushed to later in the timeline to allow time for grant procurement.

### **PROJECT SIMPLICITY (LEVEL OF EFFORT)**

Projects with shorter estimated construction lengths and relatively simple design and permitting will score higher and be moved earlier in the timeline to facilitate quicker delivery of the project program.

### **PRIORITY SCORES**

Project with a higher priority scoring from the “2018 Sidewalk Prioritization Plan” will score higher and be moved earlier in the timeline.



**Table 5-1: Project Scoring**

Implementation Criteria								
Project #	Street	Opportunity to Bundle Projects [+1]	Existing Sidewalk on One Side [-1]	Redevelopment Potential [-1-2]	Grant Potential [-1]	Level of Effort [+0-2]	Priority Scores [+0-2]	Total
4	20th Ave NW	1				2	0	3
21	8th Ave NW					1	0	1
34	Dayton Ave					0	2	2
35b	Dayton Ave		-1			1	1	1
40	Westminster	1				0	1	2
48	Linden			-1	-1	1	2	1
57	Meridian		-1			0	2	1
73	19th Ave NE	1		-1		1	1	2
74	Ballinger Way	1				0	1	2
98	15th Ave NE		-1	-2		1	2	0

**Criteria Notes:****1. Opportunity to bundle projects**

- a. Surface water partnership
- b. Traffic / Intersection improvements
- c. Ability to bundle two sidewalk projects

**2. Less weight to sidewalks with one side already built**

- a. Channelization project (Meridian) would benefit from a delay

**3. Redevelopment potential**

- a. Weighted 15th ave higher because of the large benefit of getting parts of these built for the city

**4. Grant Potential**

- a. Safe routes to school potential

**5. Project simplicity / level of effort**

- a. 2 = less than 100 estimated working days for construction
- b. 1 = between 100 and 160 working days (larger projects with no major walls)
- c. 0 = more than 160 working days

**6. Priority scores (from prioritization plan)**

- a. 2 = over 16 in original priority scoring
- b. 1 = between 14 and 16
- c. 0 = less than 14

**POTENTIAL CONSTRUCTION TIMELINE**

Based on the scoring results, the timeline in Table 5-1 below has been developed to approximate the design and construction schedules for each project. This timeline is based on best available information on existing conditions at each site, and may require adjustments as the implementation progresses. Table 5-2 shows a projection of the estimated yearly program costs for design, ROW acquisition, temporary construction easements, and construction.

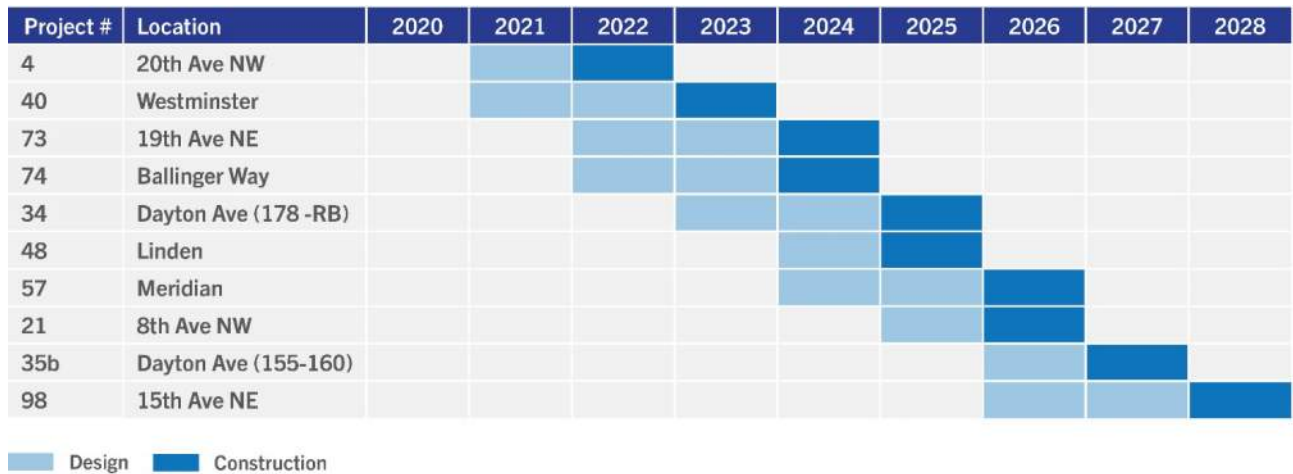


Figure 5-1: Project Implementation Schedule

Project #	Location	2020	2021	2022	2023	2024	2025	2026	2027	2028
4	20th Ave NW		\$202,000	\$1,110,000						
40	Westminster		\$369,000	\$369,000	\$3,474,000					
73	19th Ave NE			\$157,000	\$157,000	\$1,724,000				
74	Ballinger Way			\$374,000	\$374,000	\$3,341,000				
34	Dayton Ave (178-RB)				\$356,000	\$356,000	\$3,909,000			
48	Linden					\$391,000	\$2,150,000			
57	Meridian					\$561,000	\$561,000	\$2,312,000		
21	8th Ave NW						\$300,000	\$1,649,000		
35b	Dayton Ave (155-160)							\$206,000	\$1,133,000	
98	15th Ave NE							\$396,000	\$396,000	\$4,350,000
Annual Design, TCE, & ROW Cost		\$571,000	\$900,000	\$887,000	\$1,308,000	\$861,000	\$602,000	\$396,000		
Annual Construction Cost			\$1,110,000	\$3,474,000	\$5,065,000	\$6,059,000	\$3,961,000	\$1,133,000	\$4,350,000	
Escalation (2% per year)			\$0	\$88,000	\$258,000	\$424,000	\$377,000	\$160,000	\$549,000	
Total Annual Cost		\$571,000	\$2,010,000	\$4,449,000	\$6,631,000	\$7,344,000	\$4,490,000	\$1,689,000	\$4,899,000	

Figure 5-2: Estimated Project Costs per Year

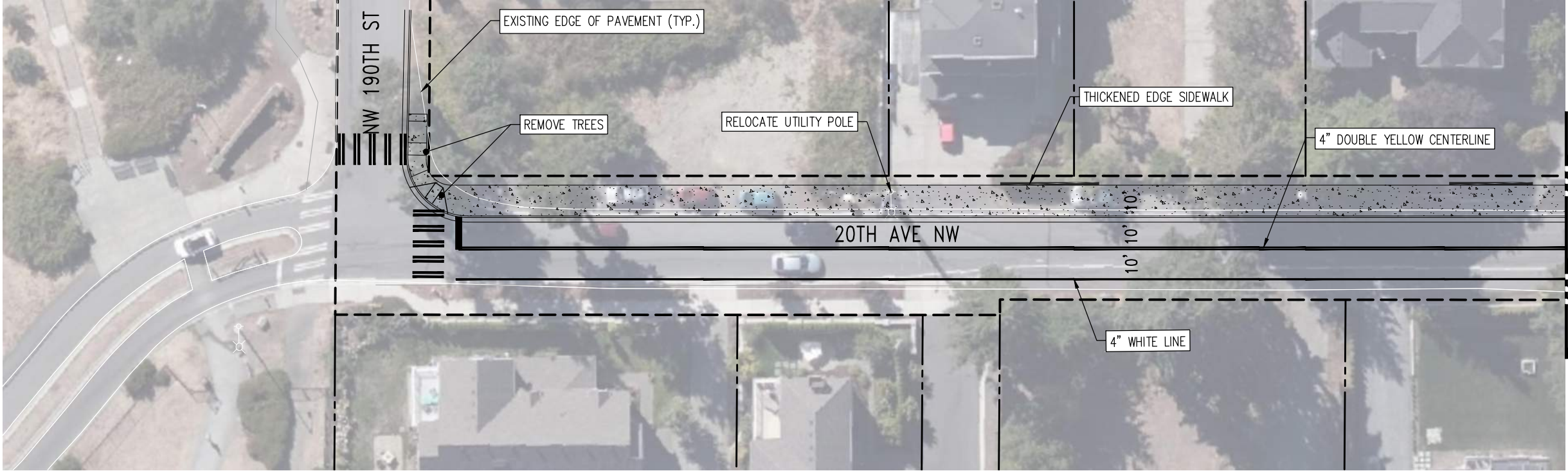
# Appendix A

## Preliminary Drawings



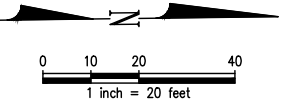
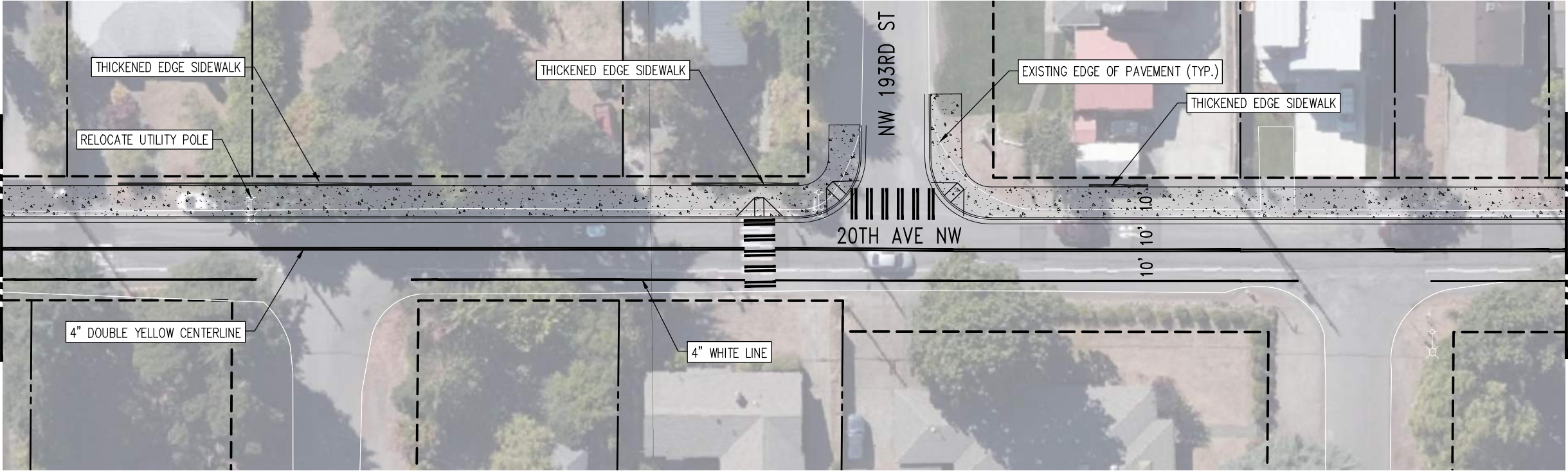


NE 1/4 SEC. 2 T26N R3E



- LEGEND
- RIGHT OF WAY
  - - - PARCEL (APPROX)
  - ▬▬▬ POTENTIAL WALL
  - CURB WALL/THICKENED EDGE (AS NOTED ON PLAN)
  - ▬▬▬ CURB AND GUTTER
  - ▬ SIDEWALK

MATCHLINE:  
SEE BELOW LEFT



NOT FOR CONSTRUCTION

Sep 23, 2021 12:36pm Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CAD\Sheets\Conceptual Design\_04.dwg CHARLEA

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



Know what's below.  
Call before you dig.

SCALE:  
AS SHOWN



8a-37

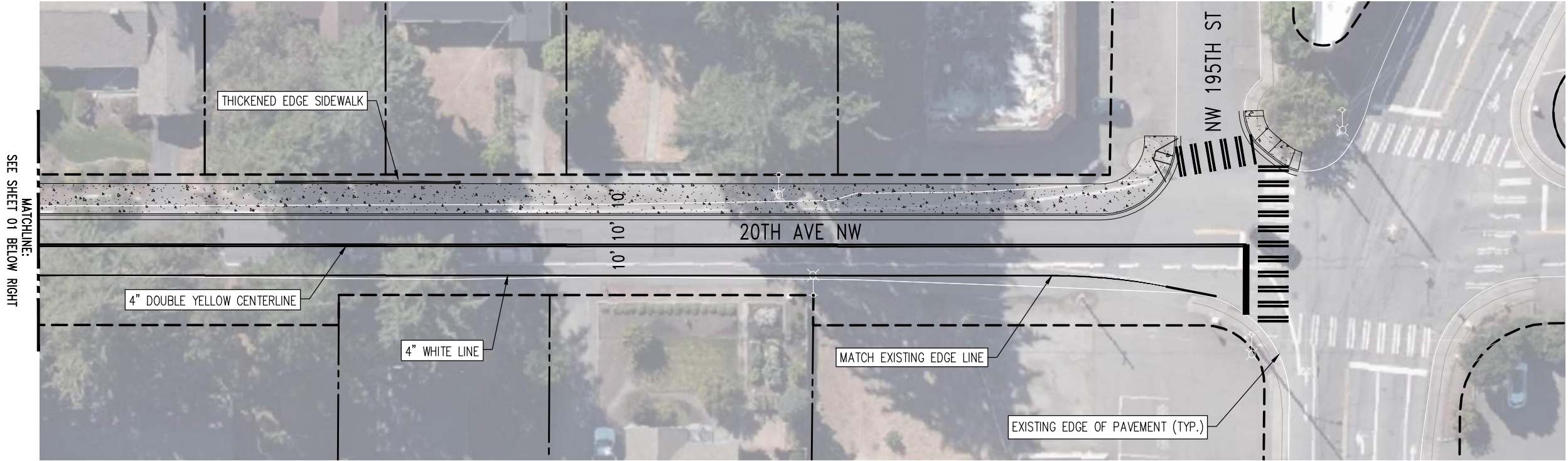


NEW SIDEWALK IMPLEMENTATION PLAN  
SHORELINE, WA

#4 - 20TH AVE NW (SALTWATER PARK TO NW 195TH)  
CONCEPTUAL DESIGN - ALTERNATIVE A

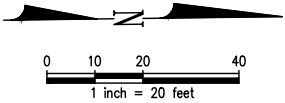
SHEET
4A-1
X OF X

NE 1/4 SEC. 2 T26N R3E



- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - POTENTIAL WALL
  - CURB WALL/THICKENED EDGE (AS NOTED ON PLAN)
  - CURB AND GUTTER
  - SIDEWALK

NOT FOR CONSTRUCTION



Sep 23, 2021 - 12:37pm CHARLEA Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_04.dwg

NO.	DATE	BY	CHD.	APPR.	REVISION

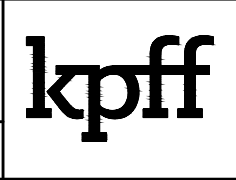
DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No. :2000015	



Know what's below.  
Call before you dig.

SCALES:

AS SHOWN



8a-38



NEW SIDEWALK IMPLEMENTATION PLAN  
SHORELINE, WA

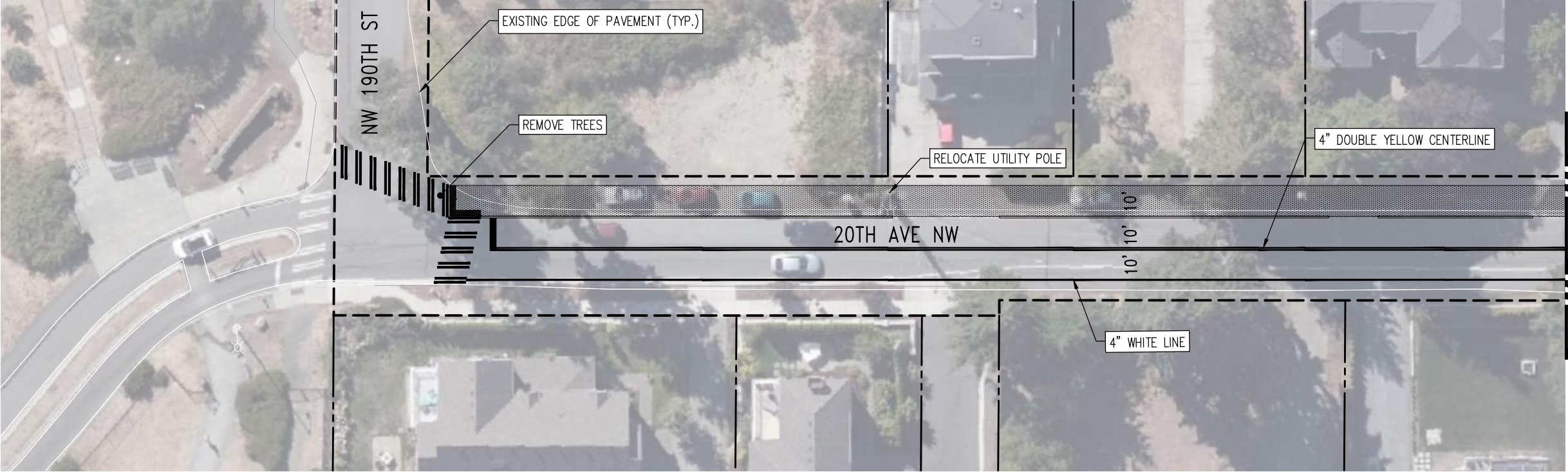
#4 - 20TH AVE NW (SALTWATER PARK TO NW 195TH)  
CONCEPTUAL DESIGN

SHEET	
4A-2	
X	OF X

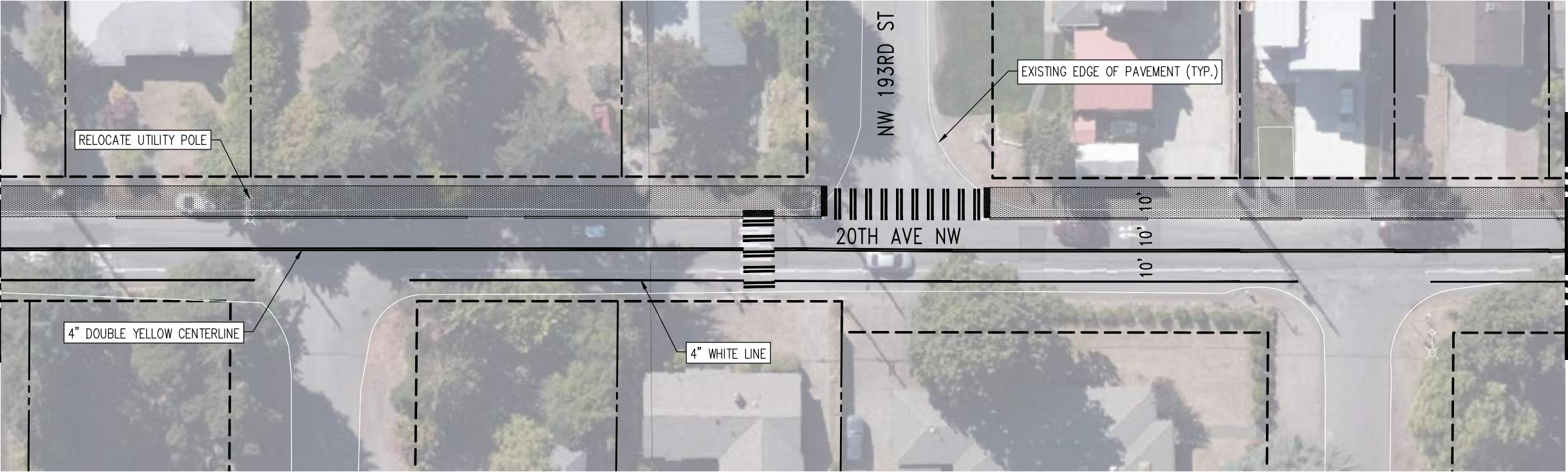


NE 1/4 SEC. 2 T26N R3E

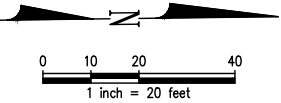
- LEGEND
- RIGHT OF WAY
  - - - PARCEL (APPROX)
  - ==== EXTRUDED CURB
  - ==== CURB WALL/THICKENED EDGE (AS NOTED ON PLAN)
  - ▨ PAVED SHARED-USE PATH



MATCHLINE:  
SEE BELOW LEFT



MATCHLINE:  
SEE SHEET 02 TOP LEFT



NOT FOR CONSTRUCTION

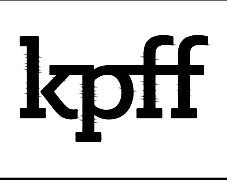
NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No. :2000015	



Know what's below.  
Call before you dig.

SCALE:  
AS SHOWN



8a-39



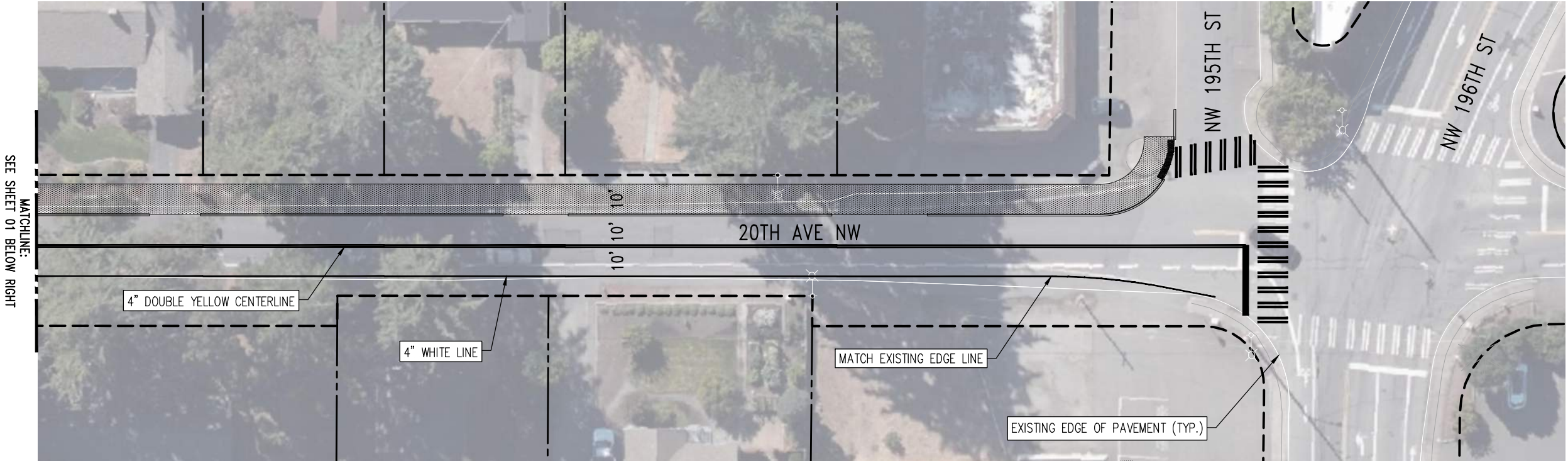
NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
#4 - 20TH AVE NW (SALTWATER PARK TO NW 195TH) CONCEPTUAL DESIGN - ALTERNATIVE B	

SHEET
4B-1



Nov 24, 2021 - 1:12pm  
charliea  
Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_04-AltB.dwg

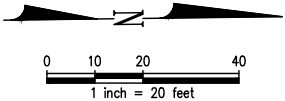
NE 1/4 SEC. 2 T26N R3E



Attachment A

- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - EXTRUDED CURB
  - CURB WALL/THICKENED EDGE (AS NOTED ON PLAN)
  - PAVED SHARED-USE PATH

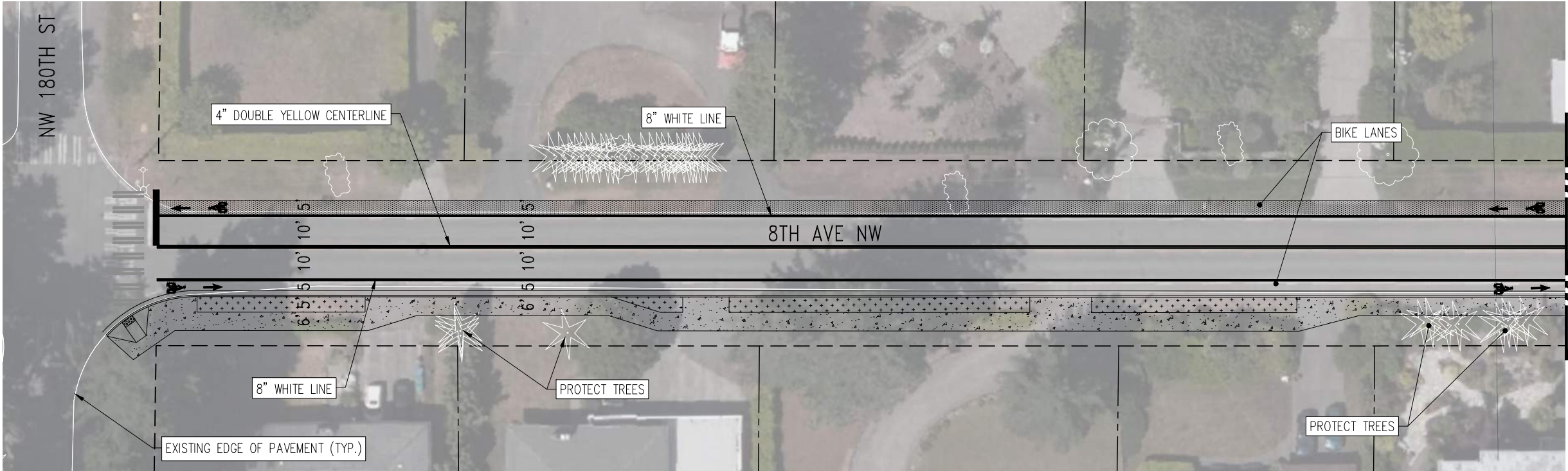
NOT FOR CONSTRUCTION



						DRAWN BY JYO	DESIGNED BY XXX					NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
					CHECKED BY NDA	APPROVED BY R.JL	#4 - 20TH AVE NW (SALTWATER PARK TO NW 195TH) CONCEPTUAL DESIGN						
					DATE X/X/2021								
NO.	DATE	BY	CHD.	APPR.	REVISION		J O B No. :2000015	S C A L E: AS SHOWN		8a-40			

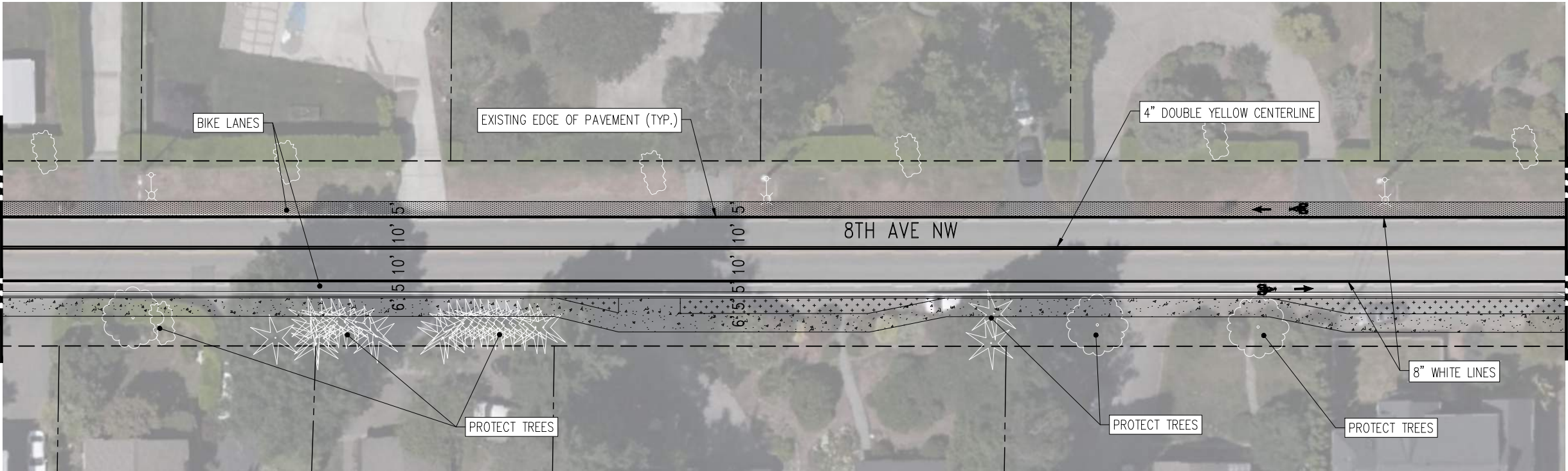


NE 1/4 SEC. 2 T26N R3E



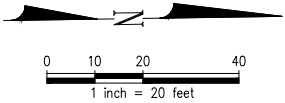
- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - CURB AND GUTTER
  - PAVEMENT
  - SIDEWALK
  - AMENITY ZONE

MATCHLINE:  
SEE BELOW LEFT



MATCHLINE:  
SEE TOP RIGHT

MATCHLINE:  
SEE SHEET 02 TOP LEFT



NOT FOR CONSTRUCTION

Sep 22, 2021 - 4:07pm CHARLEA Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CAD\Sheets\Conceptual Design\_21.dwg

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



Know what's below.  
Call before you dig.

SCALE:  
AS SHOWN



8a-41

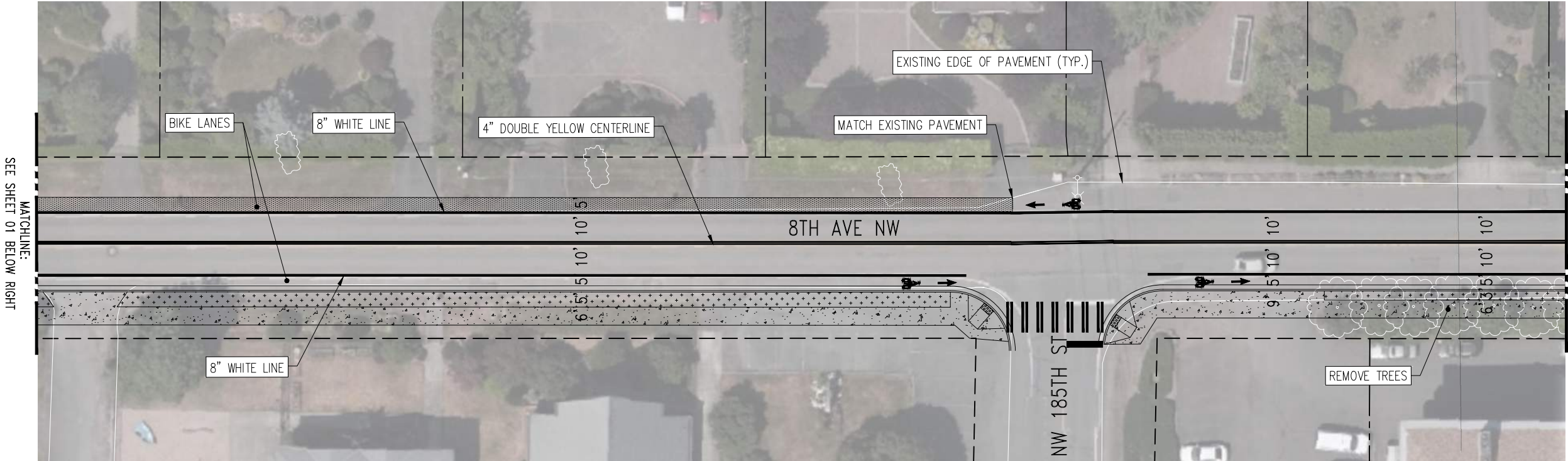


NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
#21 - 8TH AVE NW (N. SIDE SUNSET PARK TO RICHMOND BEACH RD NW) CONCEPTUAL DESIGN	

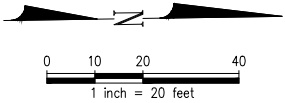
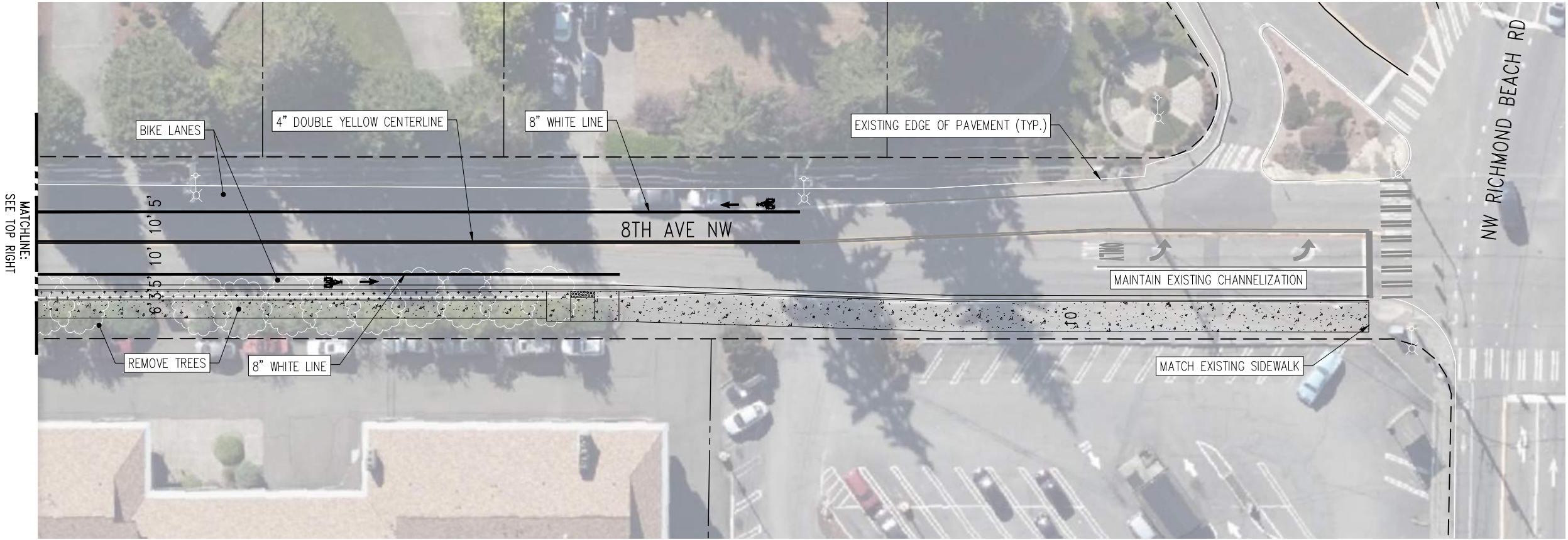
SHEET
21-1



NE 1/4 SEC. 2 T26N R3E



- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - CURB AND GUTTER
  - PAVEMENT
  - SIDEWALK
  - AMENITY ZONE



NOT FOR CONSTRUCTION


NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



Know what's below.  
Call before you dig.

SCALE:  
AS SHOWN



8a-42



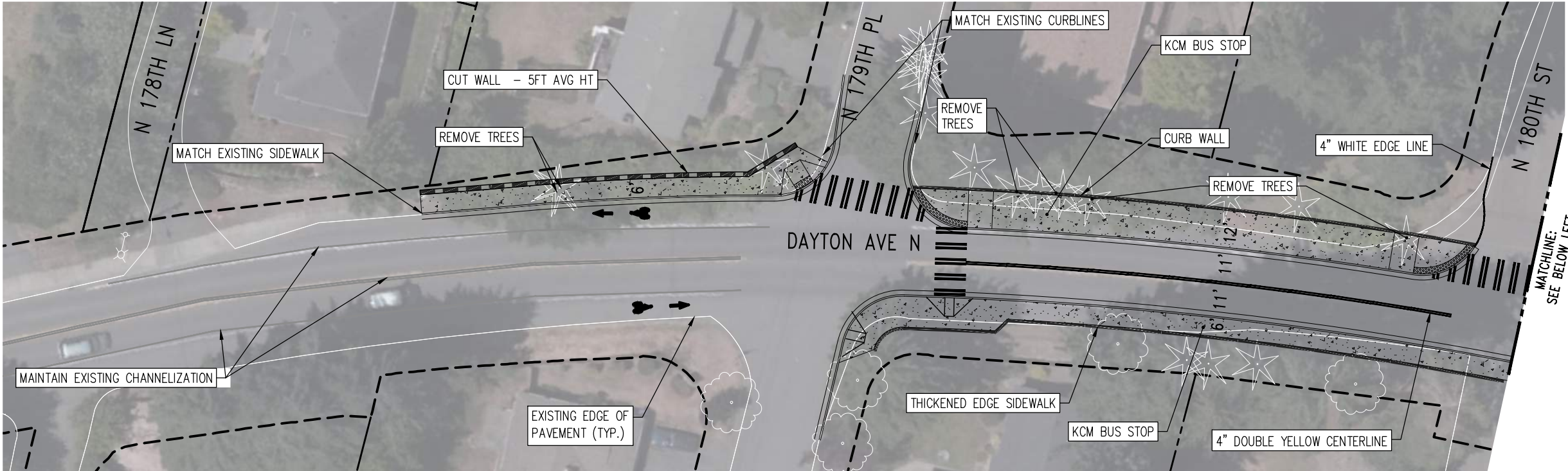
NEW SIDEWALK IMPLEMENTATION PLAN  
SHORELINE, WA

#21 - 8TH AVE NW  
(N. SIDE SUNSET PARK TO RICHMOND BEACH RD NW)  
CONCEPTUAL DESIGN

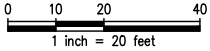
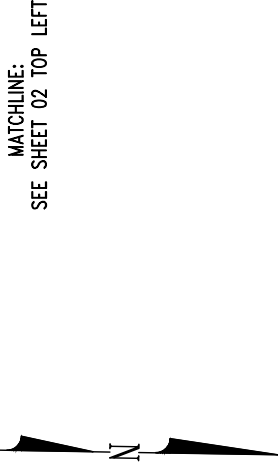
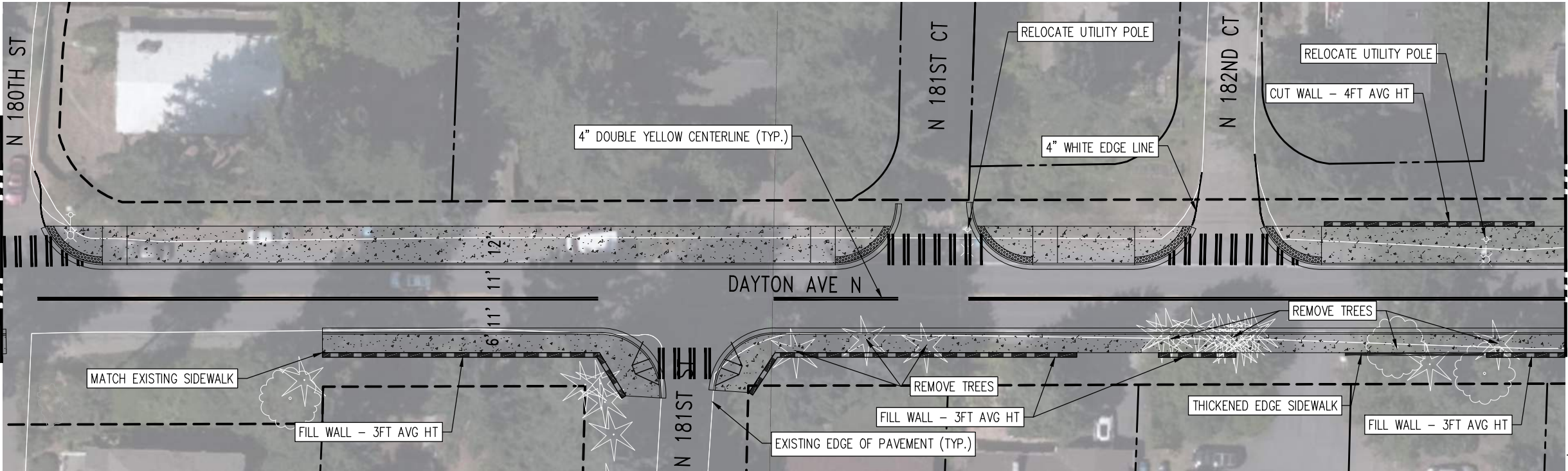
SHEET
21-2



NE 1/4 SEC. 2 T26N R3E



- LEGEND
- RIGHT OF WAY
  - - - PARCEL (APPROX)
  - - - POTENTIAL WALL
  - CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - CURB AND GUTTER
  - ▨ SIDEWALK



NOT FOR CONSTRUCTION

Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_34.dwg

charliea

Nov 24, 2021 - 1:51pm

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



8a-43

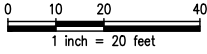
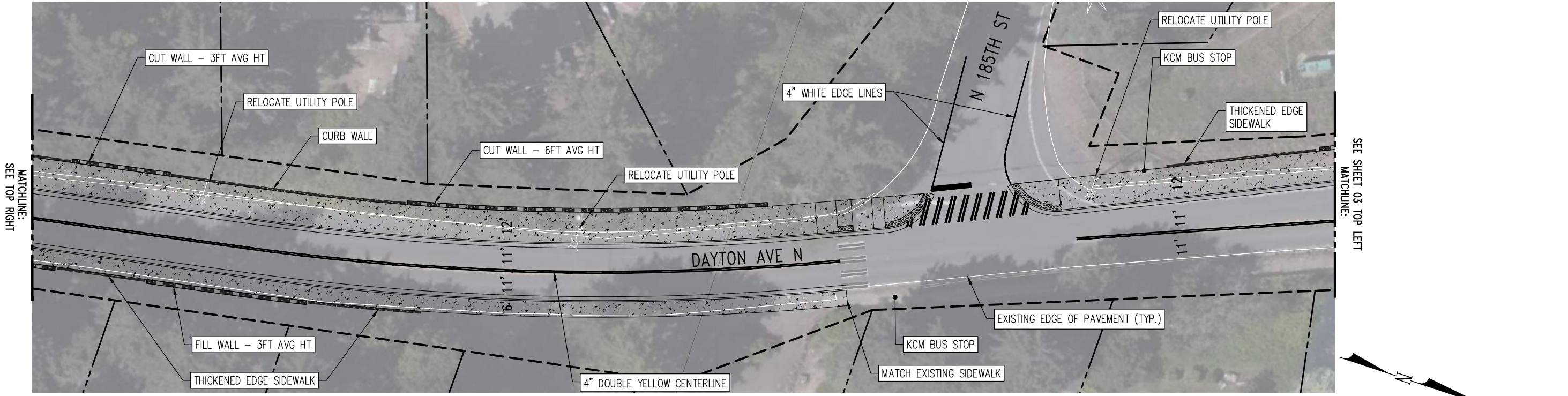
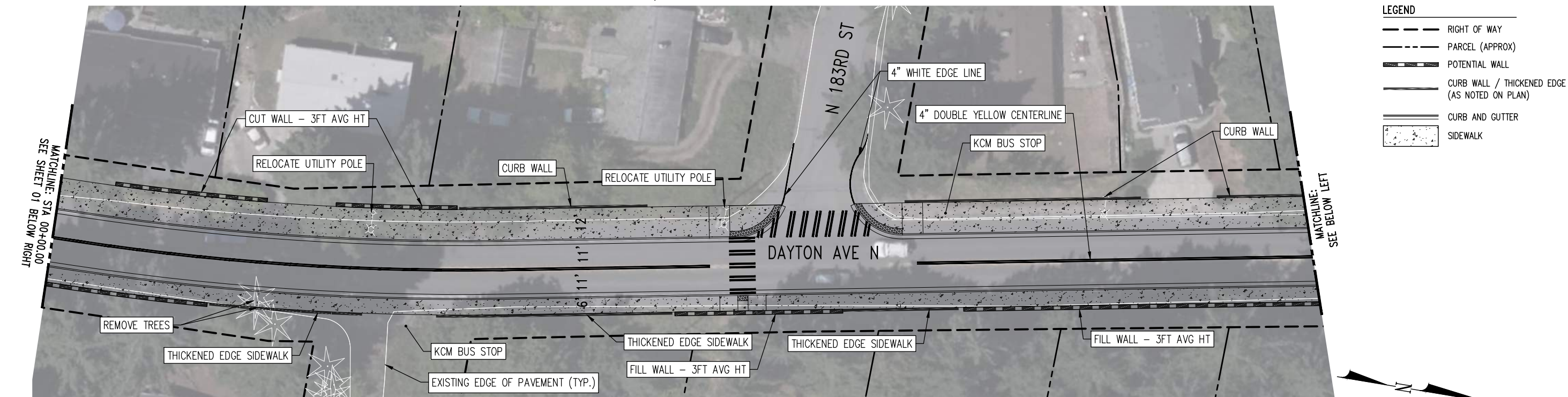


NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
#34 - DAYTON AVE N (N 178TH ST TO N RICHMOND BEACH RD) CONCEPTUAL DESIGN - ALTERNATIVE A	

SHEET
34-1



NE 1/4 SEC. 2 T26N R3E



NOT FOR CONSTRUCTION

Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_34.dwg

charliea

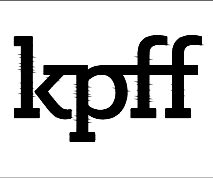
Nov 24, 2021 - 1:51pm

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	

**811**  
Know what's Below.  
Call before you dig.

SCALE:  
AS SHOWN



8a-44



**NEW SIDEWALK IMPLEMENTATION PLAN**  
SHORELINE, WA

**#34 - DAYTON AVE N (N 178TH ST TO N RICHMOND BEACH RD)**  
CONCEPTUAL DESIGN - ALTERNATIVE A

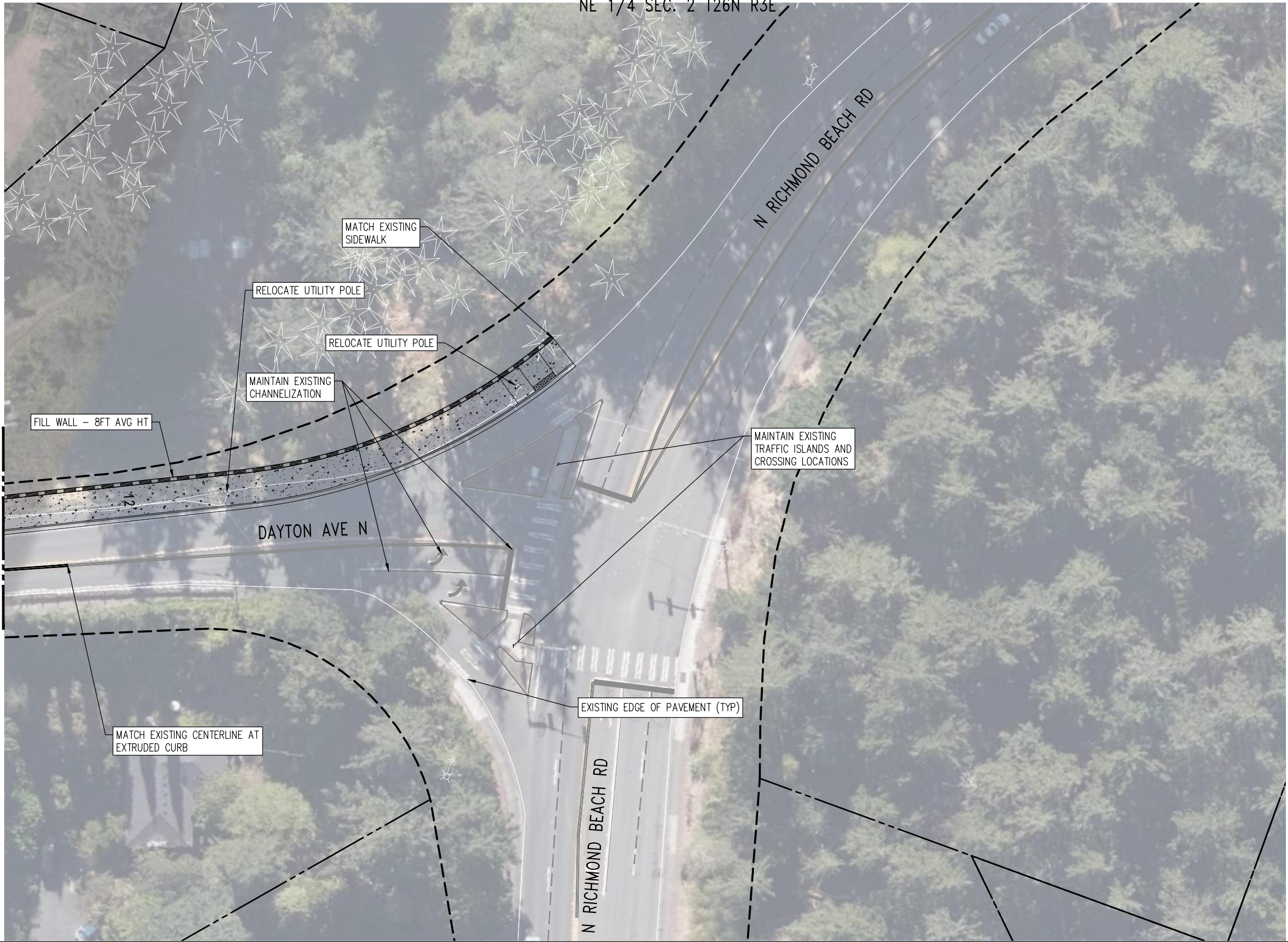
SHEET
34-2



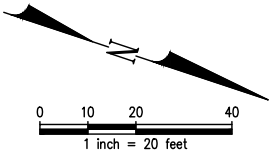
LEGEND

- RIGHT OF WAY
- PARCEL (APPROX)
- POTENTIAL WALL
- CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
- CURB AND GUTTER
- SIDEWALK

MATCHLINE:  
SEE SHEET 02 BELOW RIGHT



NOT FOR CONSTRUCTION



Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_34.dwg

charlea

Nov 24, 2021 - 1:51pm

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



Know what's below.  
Call before you dig.

SCALE:  
AS SHOWN



8a-45



NEW SIDEWALK IMPLEMENTATION PLAN  
SHORELINE, WA

#34 - DAYTON AVE N (N 178TH ST TO N RICHMOND BEACH RD)  
CONCEPTUAL DESIGN - ALTERNATIVE A

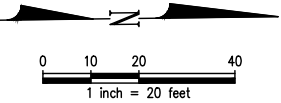
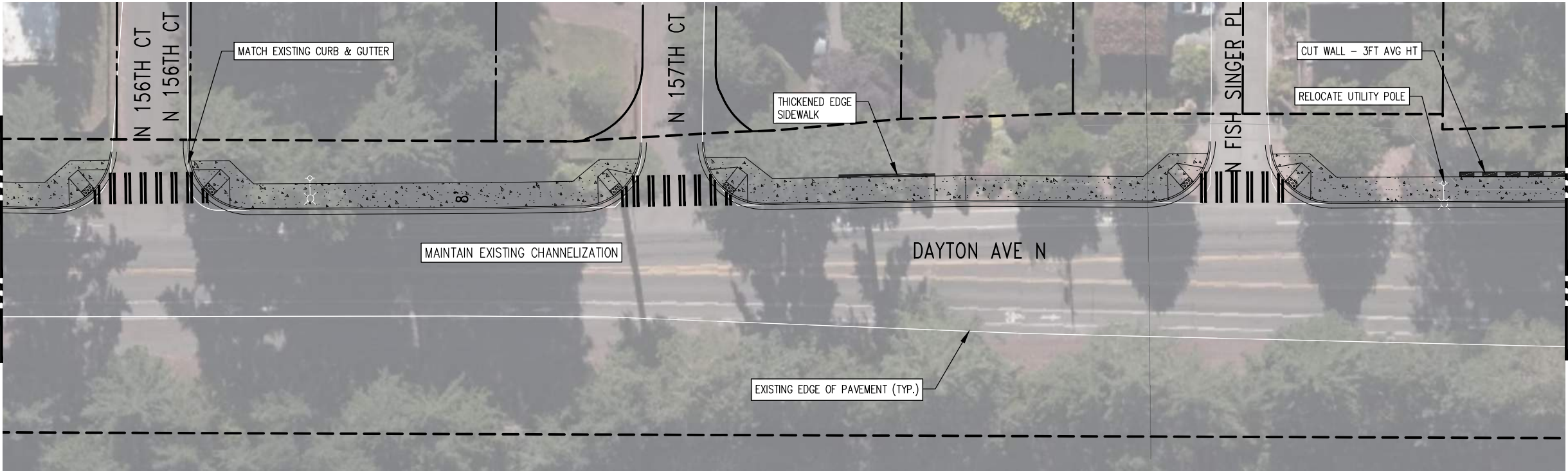
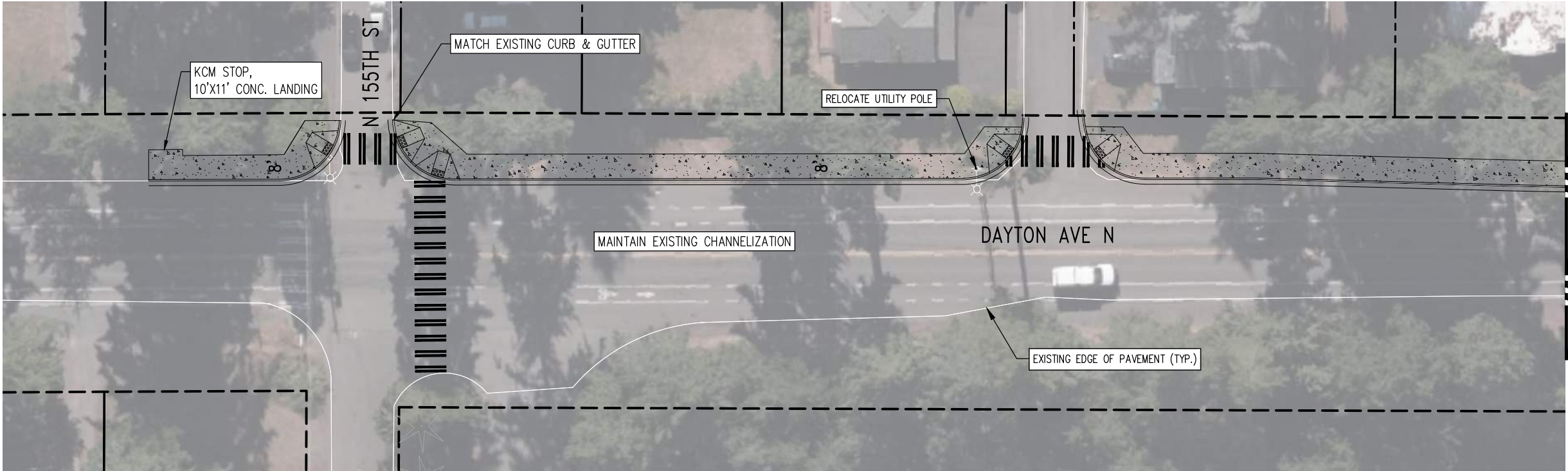
SHEET

34-3



NE 1/4 SEC. 2 T26N R3E

- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - POTENTIAL WALL
  - CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - CURB AND GUTTER
  - SIDEWALK



NOT FOR CONSTRUCTION

Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_35.dwg

CharlieA

Nov 17, 2021 - 4:05pm

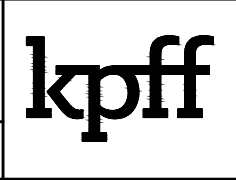
NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



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SCALE:  
AS SHOWN



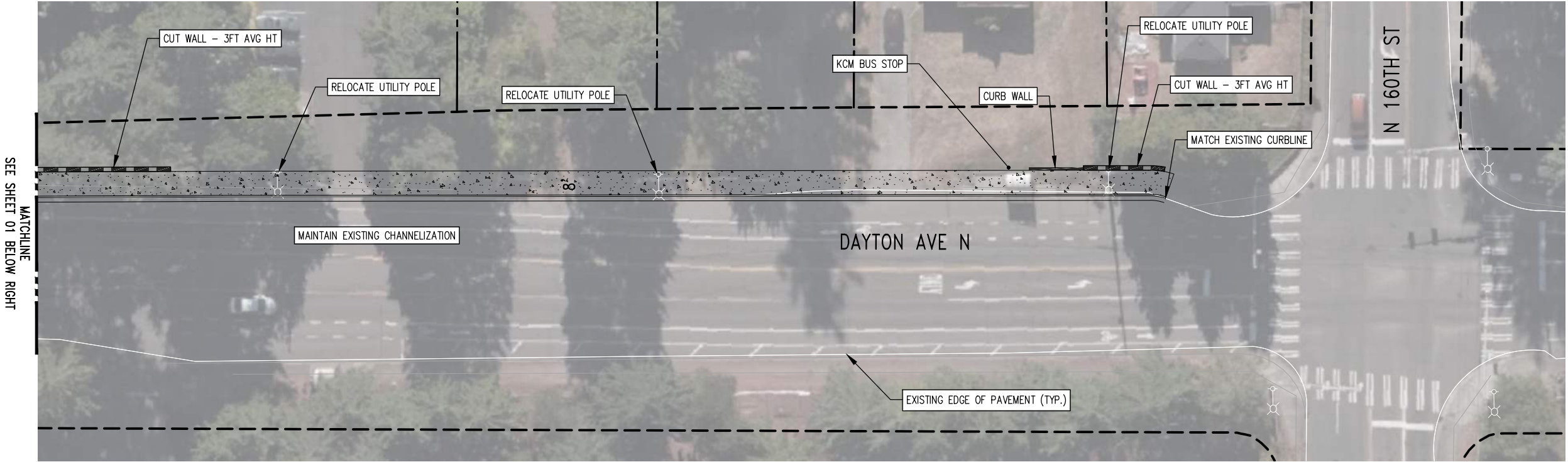
8a-46



NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
#35B - DAYTON AVE N (N 155TH ST TO N 160TH ST) CONCEPTUAL DESIGN	

SHEET
35-1

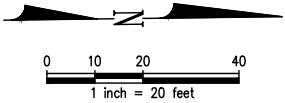
NE 1/4 SEC. 2 T26N R3E



**LEGEND**

- RIGHT OF WAY
- - - - - PARCEL (APPROX)
- ▬▬▬ POTENTIAL WALL
- CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
- ▬▬▬ CURB AND GUTTER
- ▬▬▬ SIDEWALK

NOT FOR CONSTRUCTION



Nov 17, 2021 4:05pm CharlieA Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_35.dwg

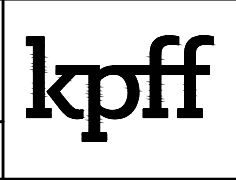
NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



Know what's below.  
Call before you dig.

SCALE:  
AS SHOWN



8a-47

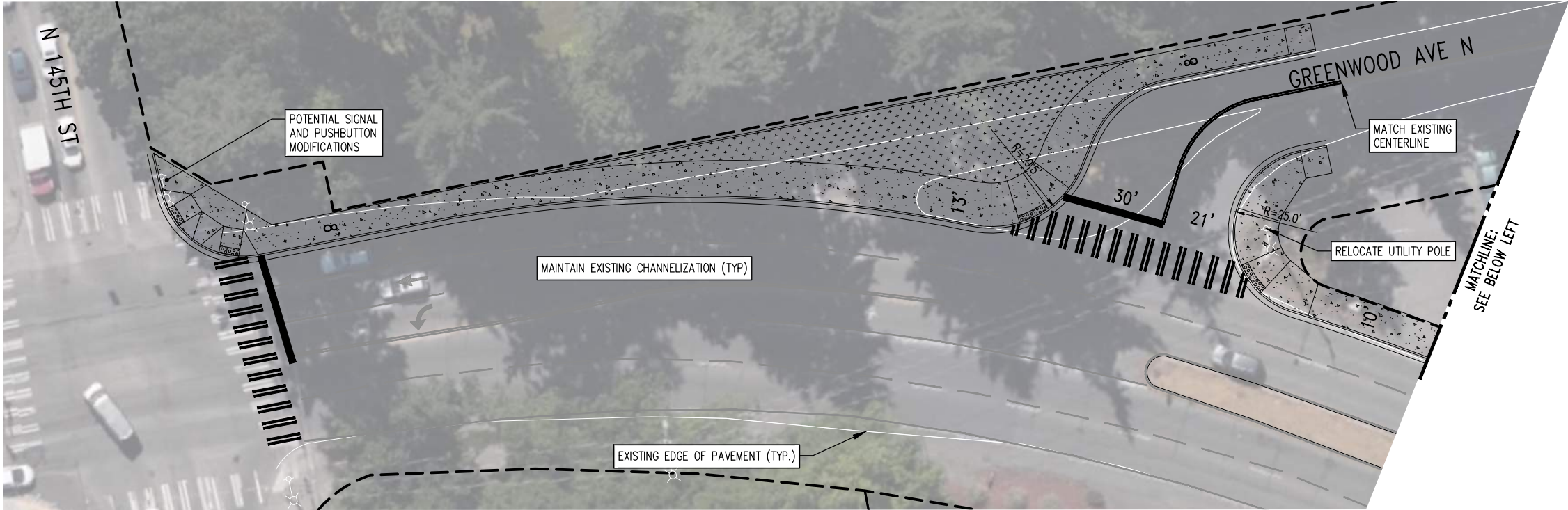


NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
#35B - DAYTON AVE N (N 155TH ST TO N 160TH ST) CONCEPTUAL DESIGN	

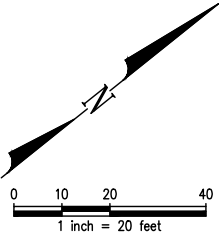
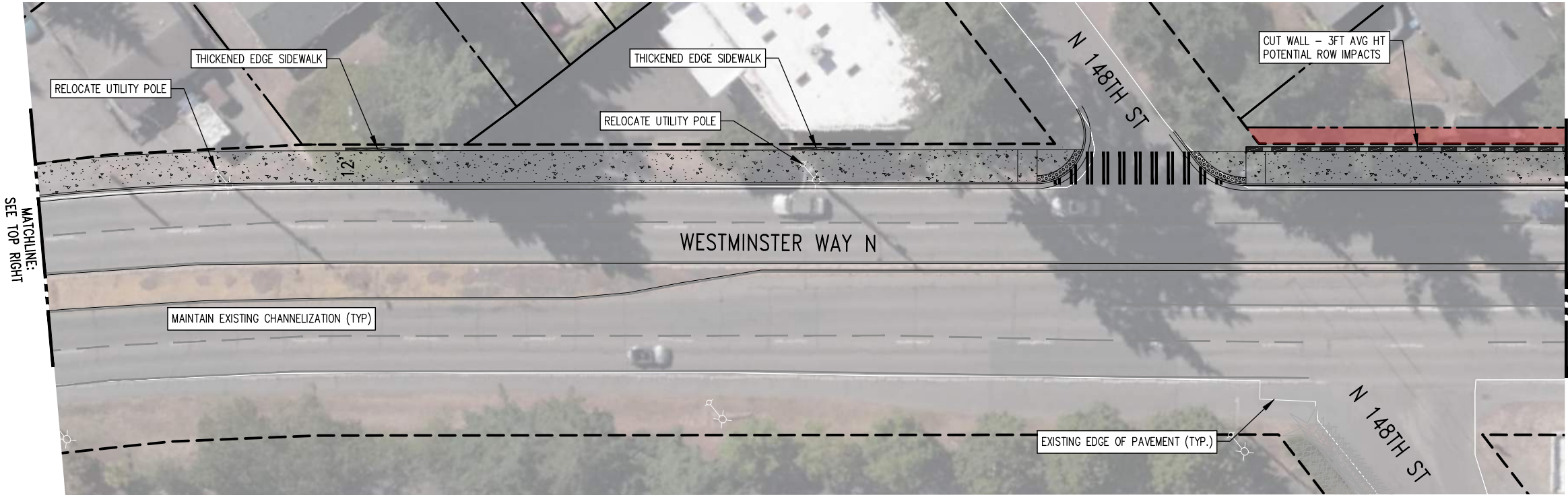
SHEET
35-2



NE 1/4 SEC. 2 T26N R3E



- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - POTENTIAL WALL
  - CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - CURB AND GUTTER
  - SIDEWALK
  - AMENITY ZONE
  - POTENTIAL ROW ACQUISITION



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Dec 13, 2021 11:56am  
Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_40.dwg  
charliea

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY CHA
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



Know what's below.  
Call before you dig.

SCALE:  
AS SHOWN



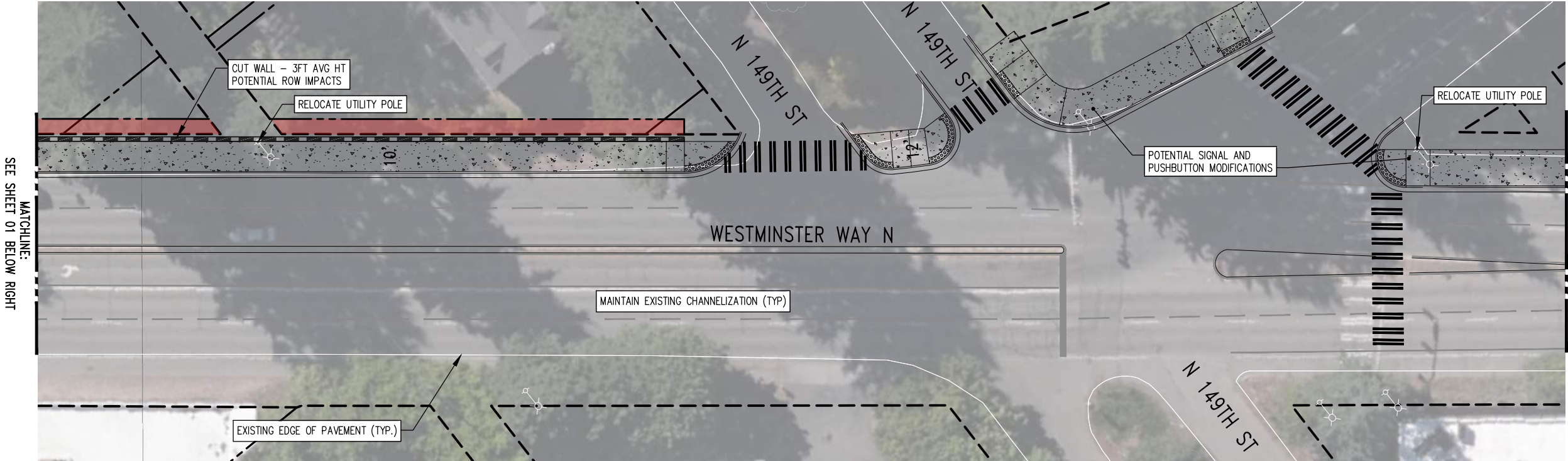
8a-48



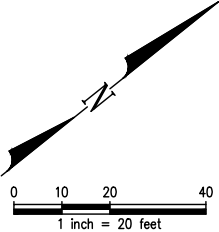
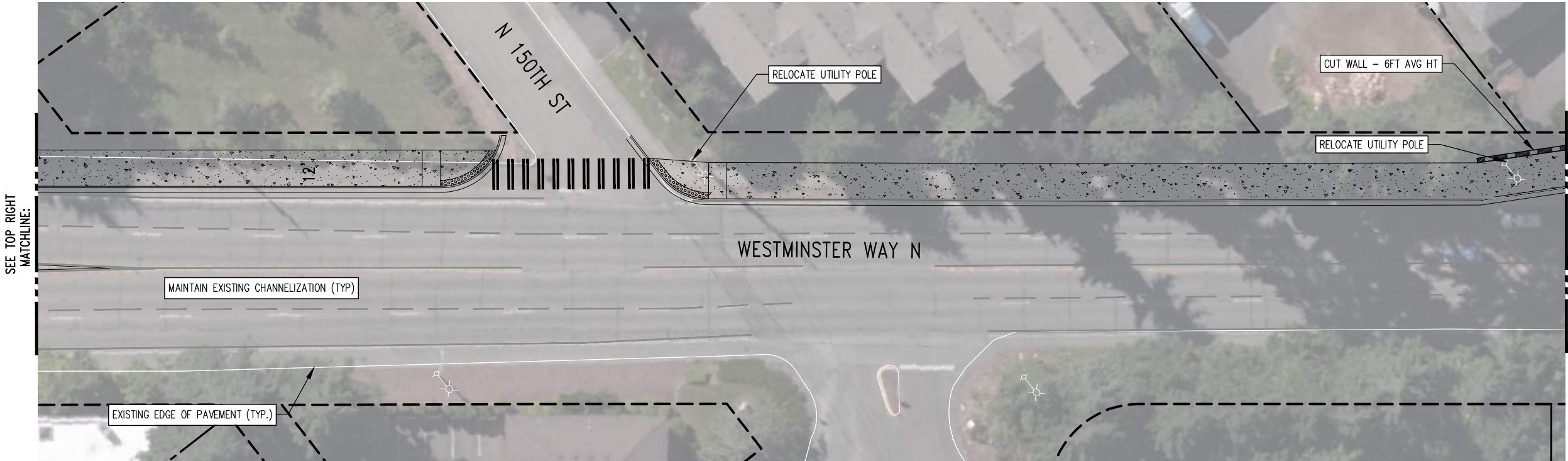
NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	SHEET
#40 - WESTMINSTER WAY N (N 145TH ST TO N 153RD ST) CONCEPTUAL DESIGN	40-1



NE 1/4 SEC. 2 T26N R3E



- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - POTENTIAL WALL
  - CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - CURB AND GUTTER
  - SIDEWALK
  - AMENITY ZONE
  - POTENTIAL ROW ACQUISITION



NOT FOR CONSTRUCTION

						DRAWN BY JYO	DESIGNED BY CHA				NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
						CHECKED BY NDA	APPROVED BY RJL				#40 - WESTMINSTER WAY N (N 145TH ST TO N 153RD ST) CONCEPTUAL DESIGN	
						DATE X/X/2021						
NO.	DATE	BY	CHD.	APPR.	REVISION	J O B No. :2000015		S C A L E: AS SHOWN		8a-49		

Dec 13, 2021 - 11:57am  
charlea  
Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CA00\Sheets\Conceptual Design\_40.dwg

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY CHA
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



Know what's below.  
Call before you dig.

SCALE:  
AS SHOWN



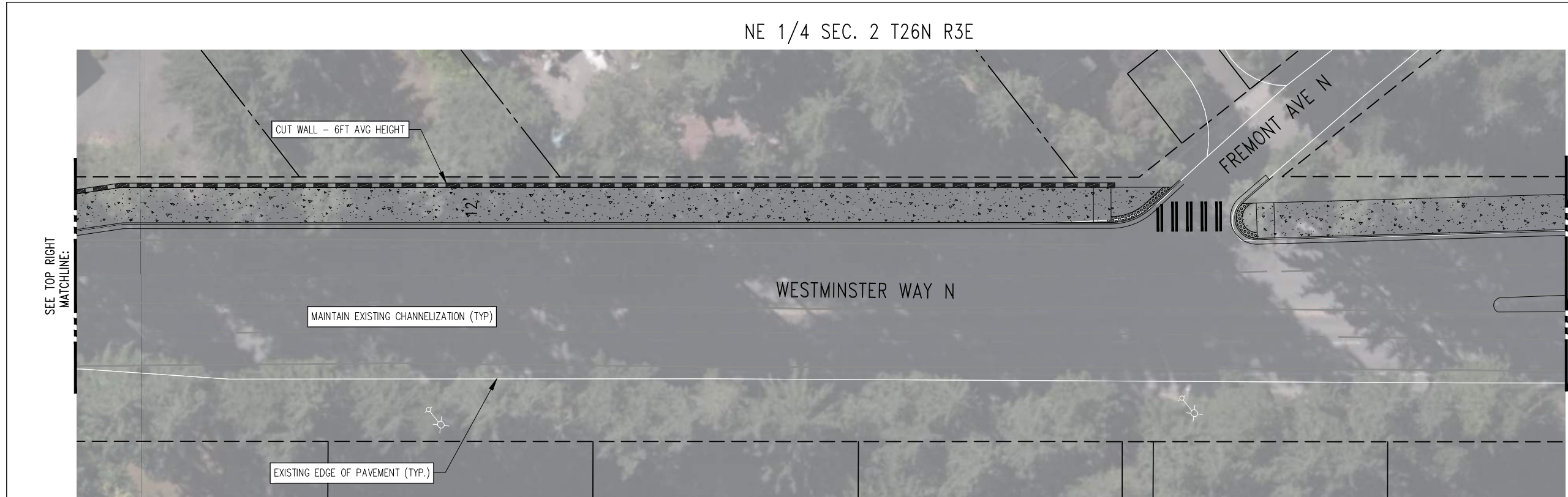
8a-50



NEW SIDEWALK IMPLEMENTATION PLAN  
SHORELINE, WA

#40 - WESTMINSTER WAY N  
(N 145TH ST TO N 153RD ST)  
CONCEPTUAL DESIGN

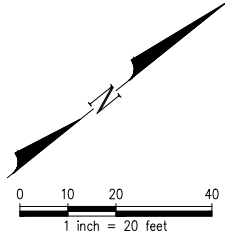
SHEET  
40-3



Attachment A

LEGEND

- RIGHT OF WAY
- PARCEL (APPROX)
- POTENTIAL WALL
- CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
- CURB AND GUTTER
- SIDEWALK
- AMENITY ZONE
- POTENTIAL ROW ACQUISITION



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Nov 17, 2021 - 4:33pm  
CharlieA  
Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_48.dwg

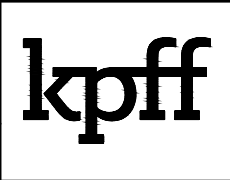
NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY CHA
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



Know what's below.  
Call before you dig.

SCALE:  
AS SHOWN

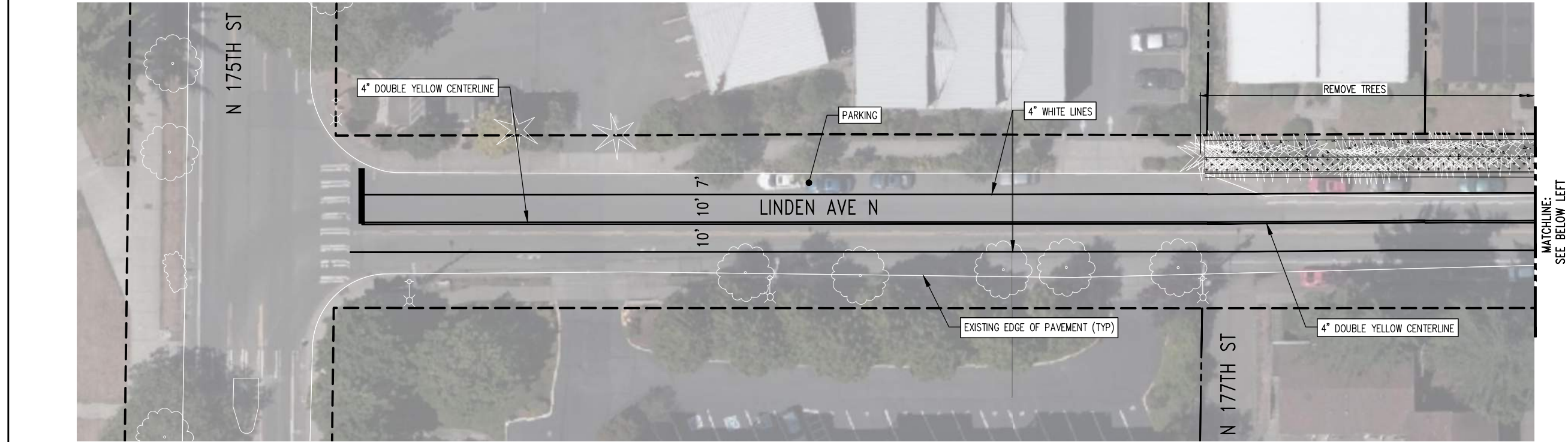
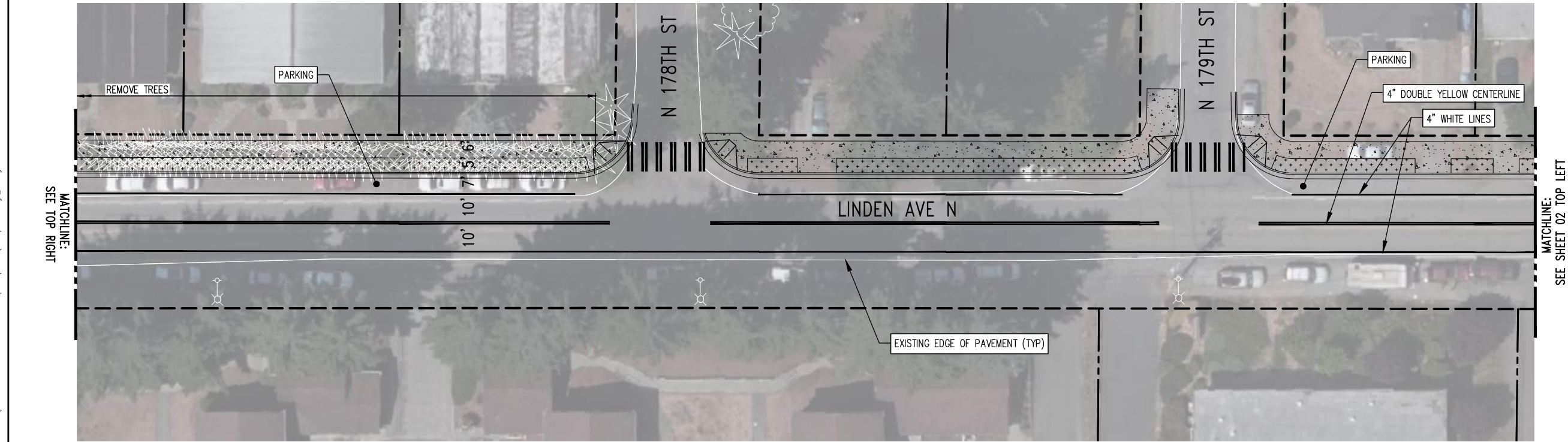


8a-51



NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
#48 - LINDEN AVE N (N 175TH ST TO N 185TH ST) CONCEPTUAL DESIGN	

SHEET
48-1



LEGEND

RIGHT OF WAY

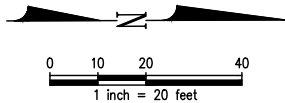
PARCEL (APPROX)

CURB WALL / THICKENED EDGE  
(AS NOTED ON PLAN)

CURB AND GUTTER

SIDEWALK

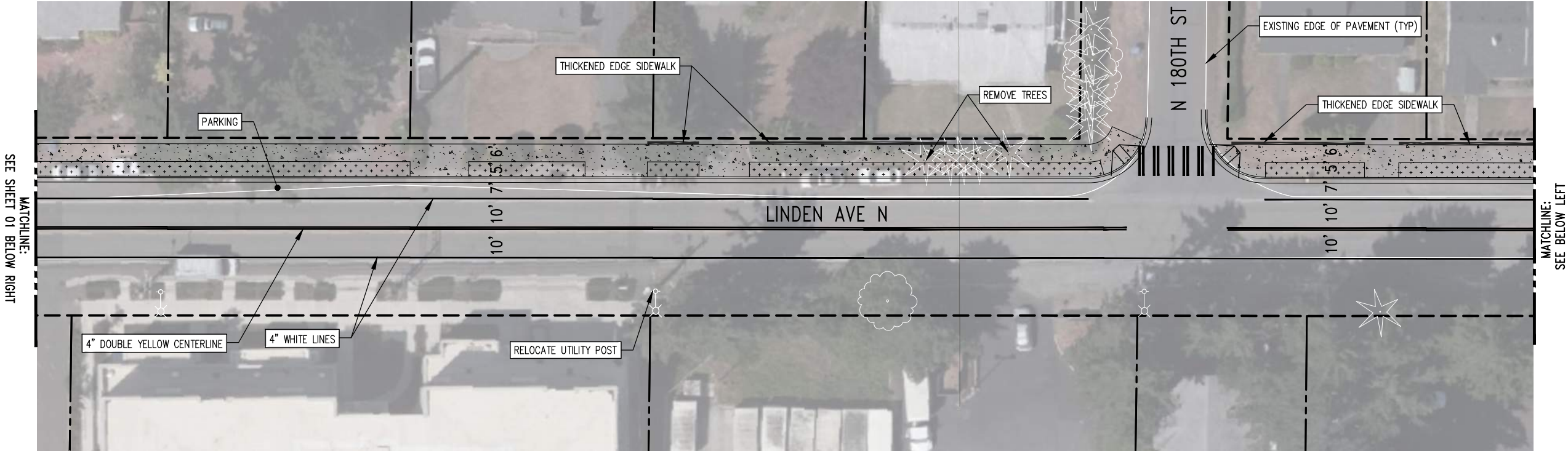
AMENITY ZONE



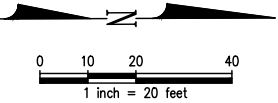
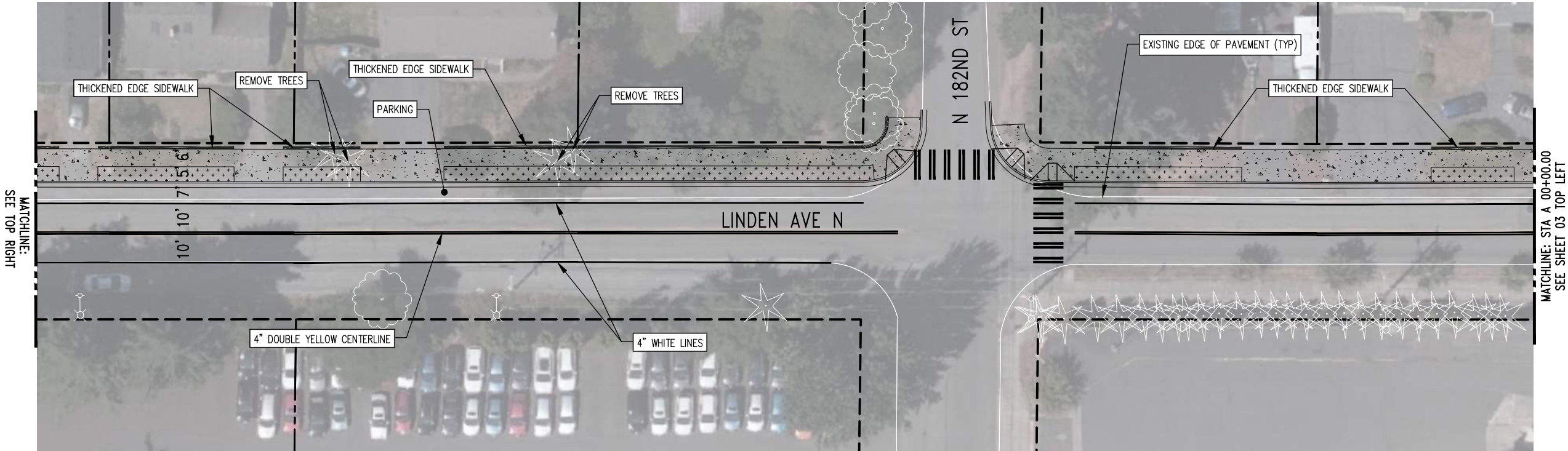
NOT FOR CONSTRUCTION



NE 1/4 SEC. 2 T26N R3E



- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - CURB AND GUTTER
  - SIDEWALK
  - AMENITY ZONE



NOT FOR CONSTRUCTION

Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_48.dwg

CharlieA

Nov 17, 2021 - 4:33pm

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY CHA
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



8a-52

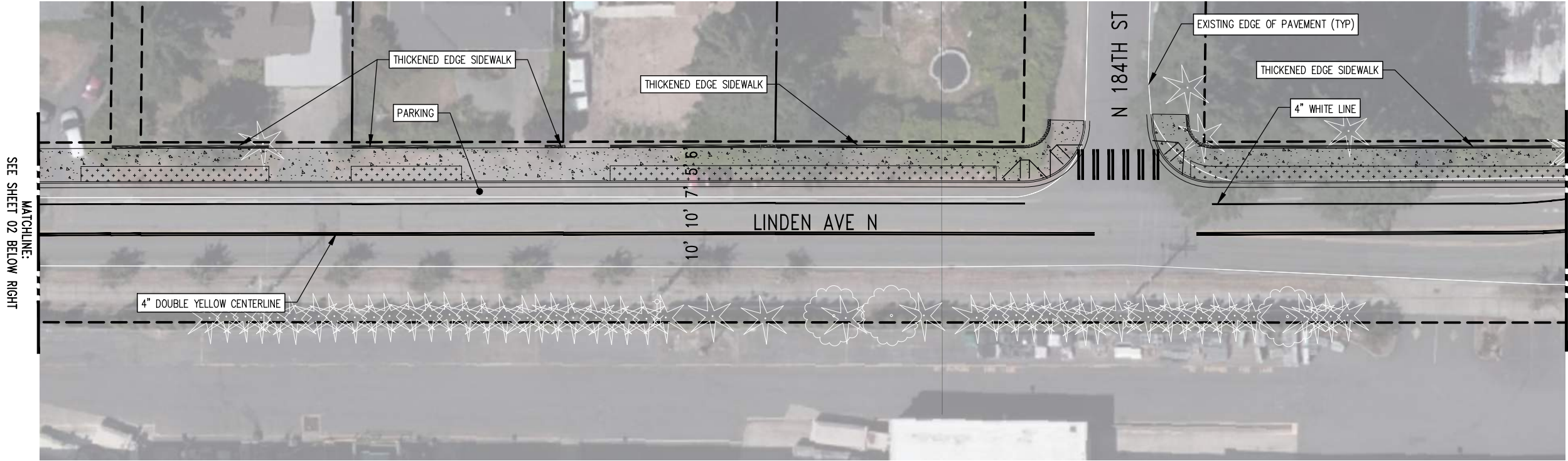


NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
#48 - LINDEN AVE N (N 175TH ST TO N 185TH ST) CONCEPTUAL DESIGN	

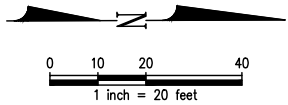
SHEET
48-2



NE 1/4 SEC. 2 T26N R3E



- LEGEND**
- RIGHT OF WAY
  - - - PARCEL (APPROX)
  - CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - ==== CURB AND GUTTER
  - [Pattern] SIDEWALK
  - [Pattern] AMENITY ZONE



NOT FOR CONSTRUCTION

Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_48.dwg

CharlieA

Nov 17, 2021 - 4:33pm

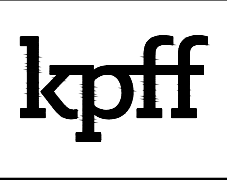
NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY CHA
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No. :2000015	



Know what's below.  
Call before you dig.

SCALE:  
AS SHOWN



8a-53



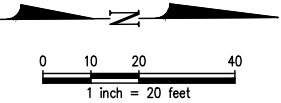
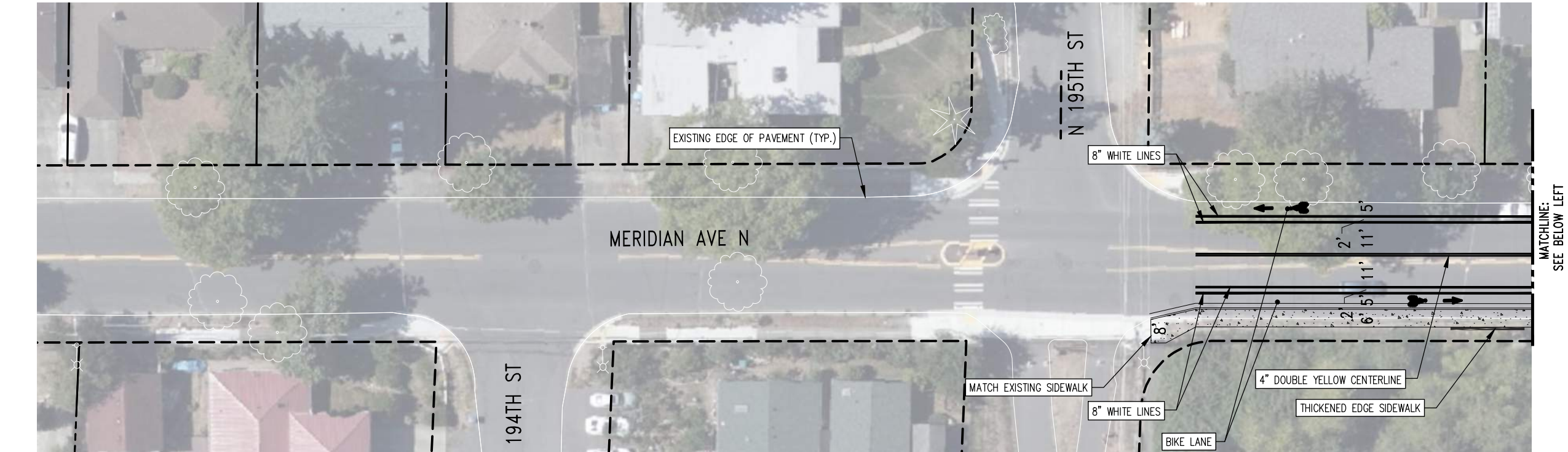
NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
#48 - LINDEN AVE N (N 175TH ST TO N 185TH ST) CONCEPTUAL DESIGN	

SHEET
48-3



NE 1/4 SEC. 2 T26N R3E

- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - POTENTIAL WALL
  - CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - CURB AND GUTTER
  - SIDEWALK
  - POTENTIAL ROW ACQUISITION



NOT FOR CONSTRUCTION

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY CHA
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No. :2000015	

**811**  
Know what's below.  
Call before you dig.

SCALE:  
AS SHOWN



8a-54

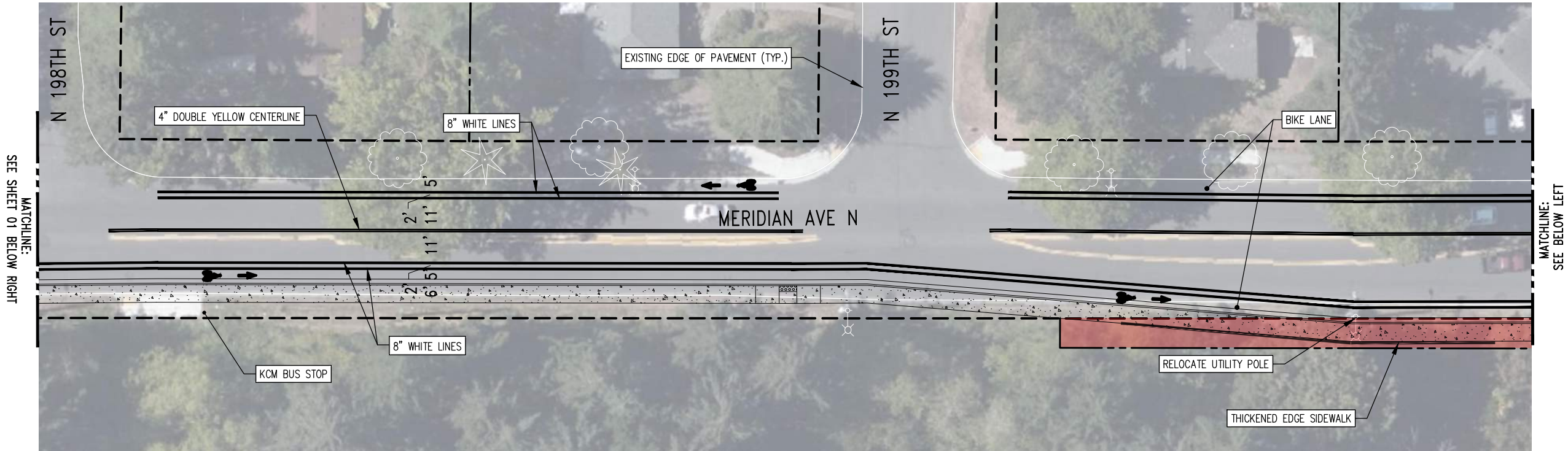


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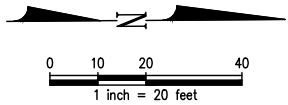
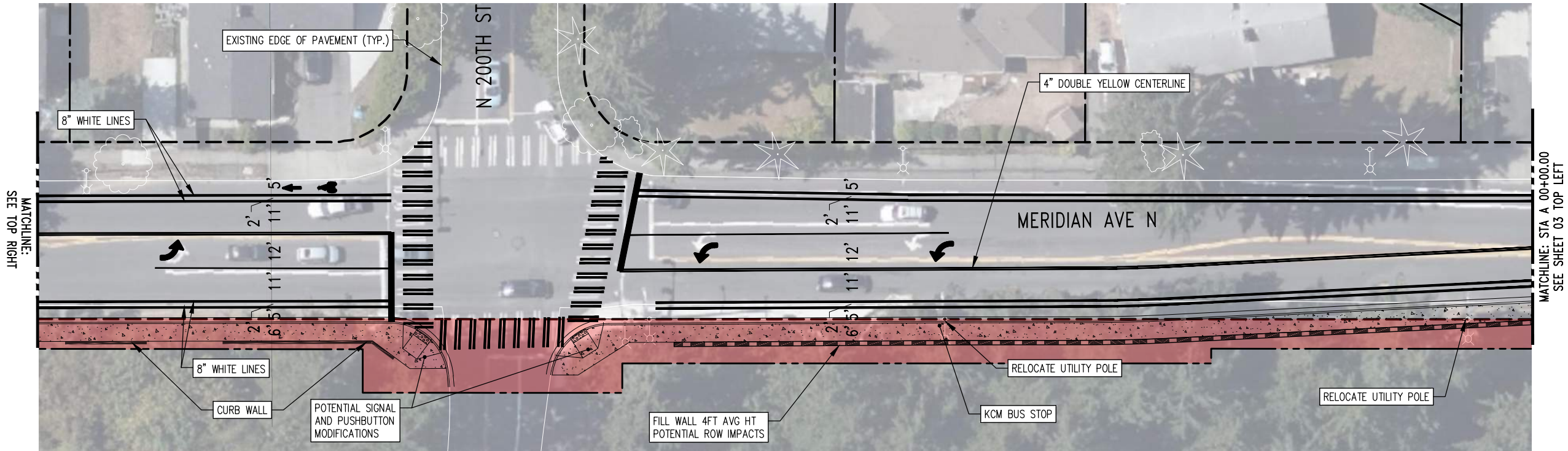
SHEET
57-1



NE 1/4 SEC. 2 T26N R3E



- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - POTENTIAL WALL
  - CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - CURB AND GUTTER
  - SIDEWALK
  - POTENTIAL ROW ACQUISITION



NOT FOR CONSTRUCTION

Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan (CAD)\Sheets\Conceptual Design\_57.dwg

charliea

Dec 13, 2021 - 12:00pm

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY CHA
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.: 2000015	



8a-55

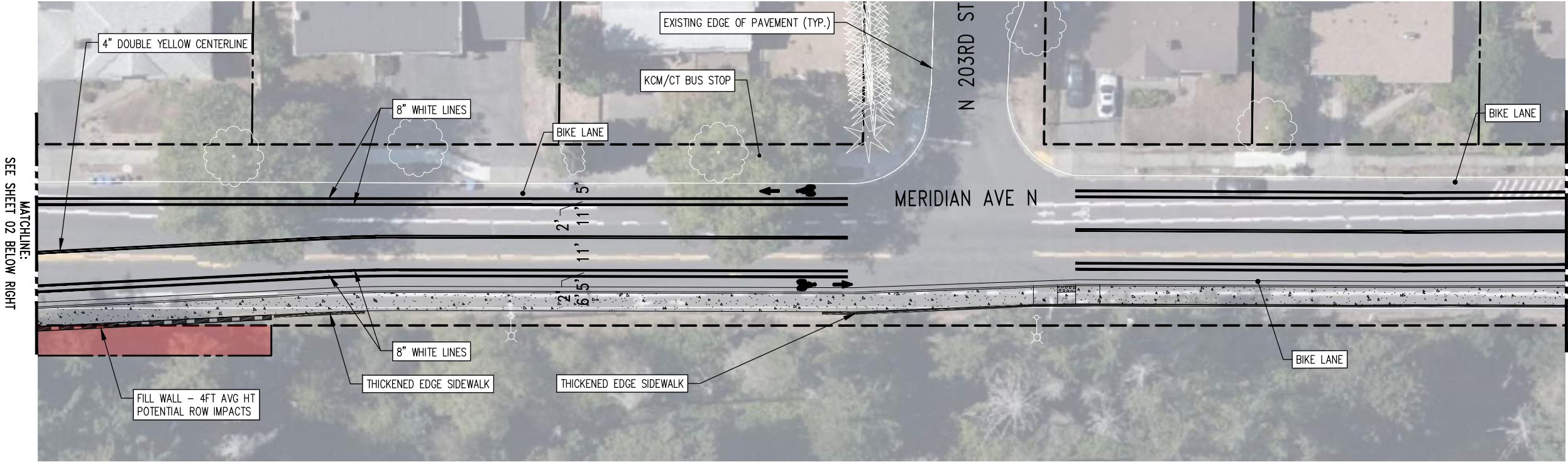


NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
#57 - MERIDIAN AVE N (N 194TH ST TO N 205TH ST) CONCEPTUAL DESIGN	

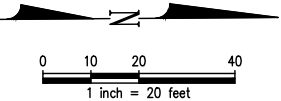
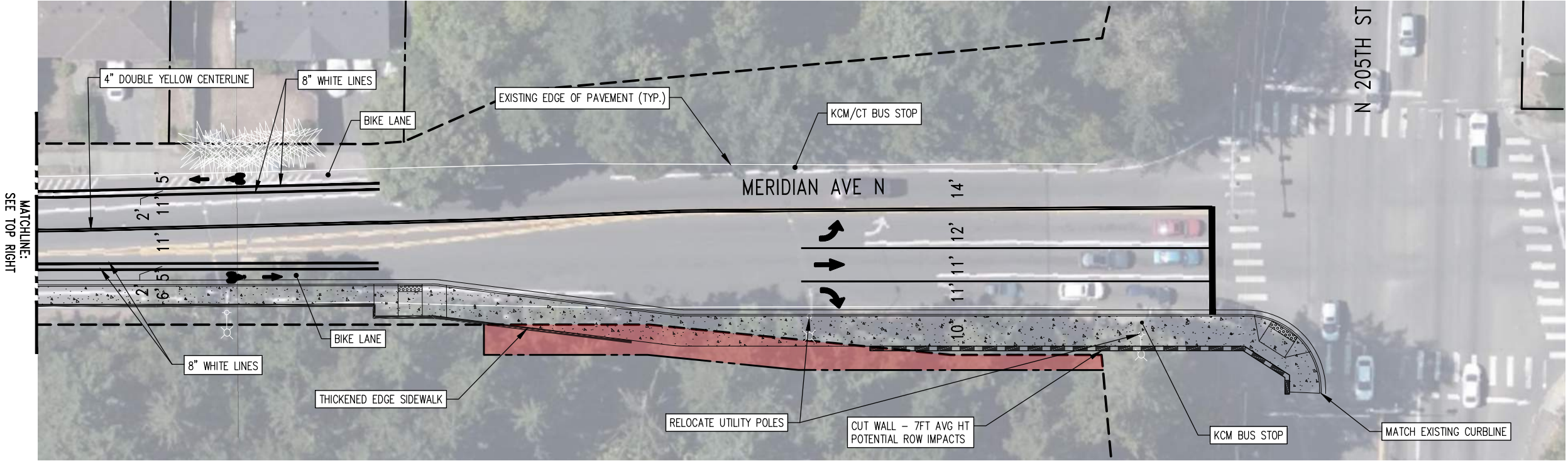
SHEET
57-2



NE 1/4 SEC. 2 T26N R3E



- LEGEND**
- RIGHT OF WAY
  - PARCEL (APPROX)
  - POTENTIAL WALL
  - CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - CURB AND GUTTER
  - SIDEWALK
  - POTENTIAL ROW ACQUISITION



NOT FOR CONSTRUCTION

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charlea

Dec 13, 2021 - 12:00pm

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY CHA
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	

**811**  
Know what's below.  
Call before you dig.

**SCALE:**  
AS SHOWN

**kpff**

8a-56

**CITY OF SHORELINE**

**NEW SIDEWALK IMPLEMENTATION PLAN**  
SHORELINE, WA

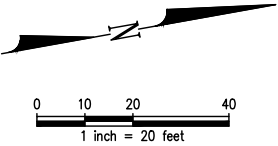
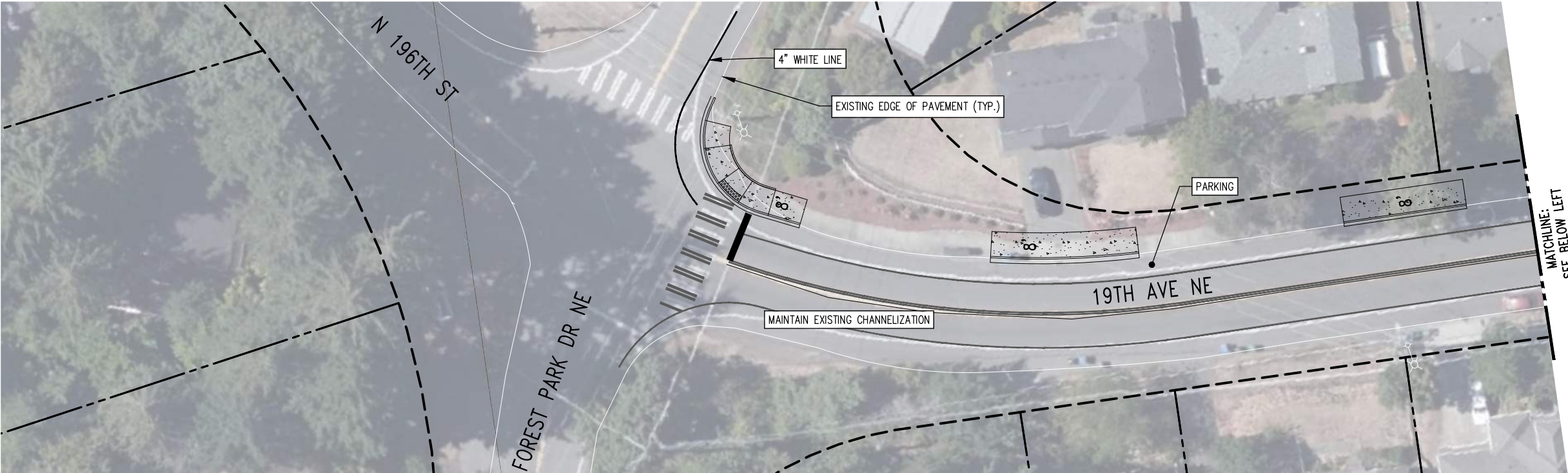
**#57 - MERIDIAN AVE N (N 194TH ST TO N 205TH ST)**  
CONCEPTUAL DESIGN

SHEET

**57-3**



- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - CURB AND GUTTER
  - SIDEWALK
  - AMENITY ZONE



NOT FOR CONSTRUCTION

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No. :2000015	



Know what's below.  
Call before you dig.

SCALE:

AS SHOWN



8a-57

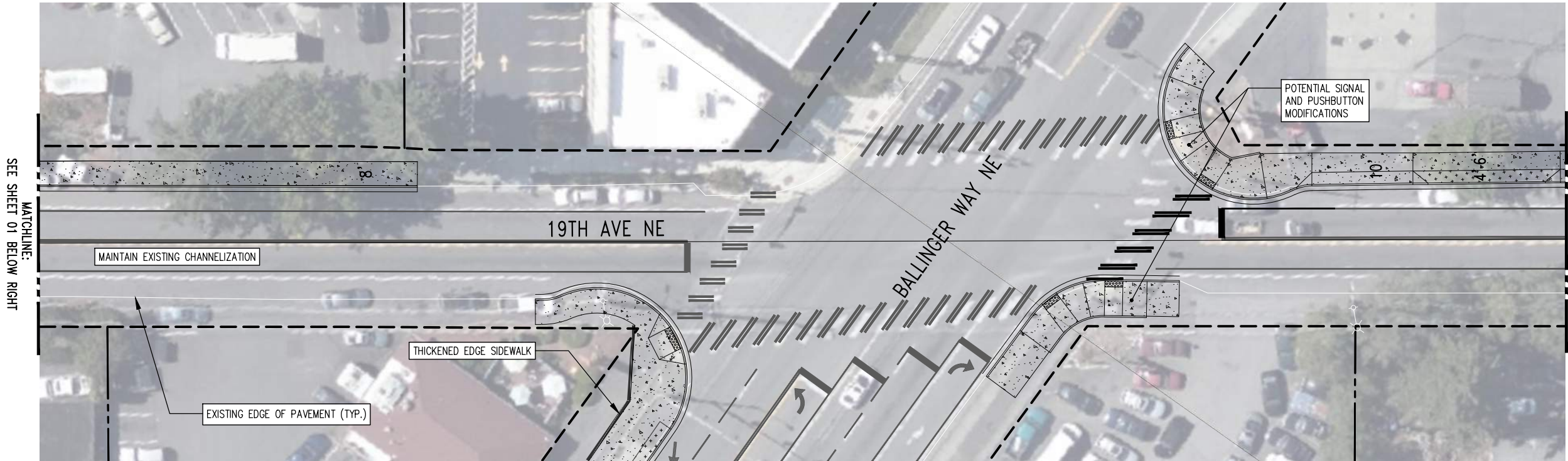


NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
#73 - 19TH AVE NE (NE 196TH ST TO NE 244TH ST SW) CONCEPTUAL DESIGN	

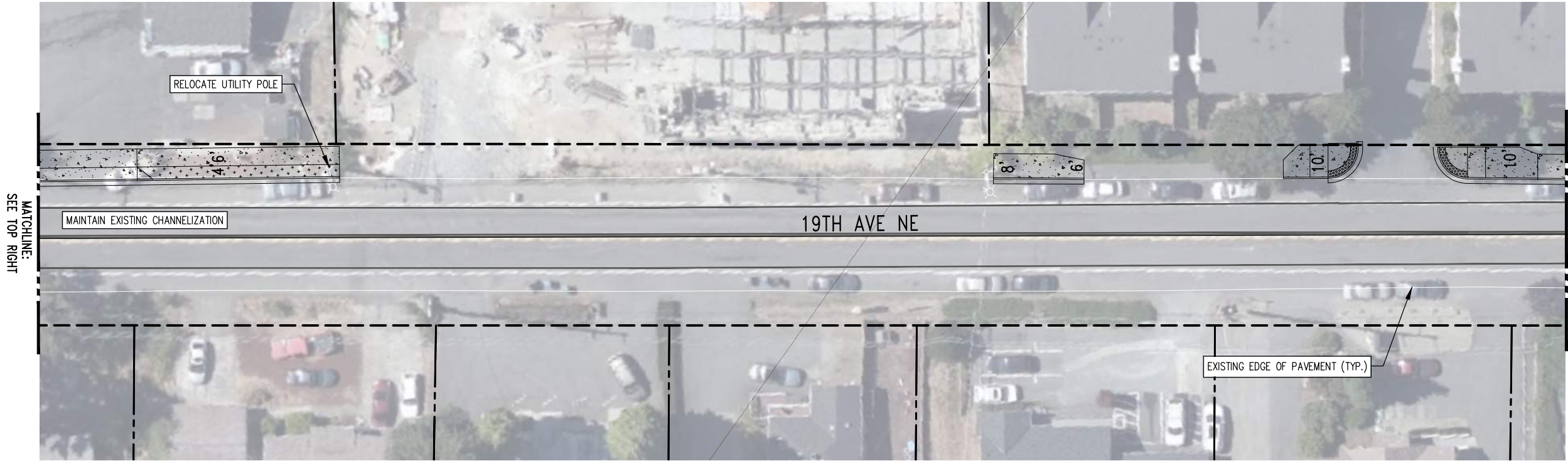
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73-1



NE 1/4 SEC. 2 T26N R3E



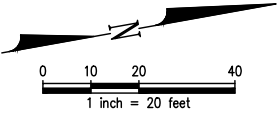
- LEGEND
- RIGHT OF WAY
  - - - PARCEL (APPROX)
  - ==== CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - ==== CURB AND GUTTER
  - [Pattern] SIDEWALK
  - [Pattern] AMENITY ZONE



MATCHLINE:  
SEE BELOW LEFT

MATCHLINE:  
SEE SHEET 03 TOP LEFT

NOT FOR CONSTRUCTION



Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_73.dwg

charlea

Nov 30, 2021 - 9:15am

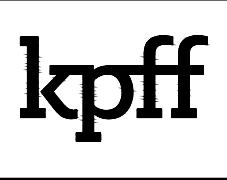
NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



Know what's below.  
Call before you dig.

SCALE:  
AS SHOWN



8a-58



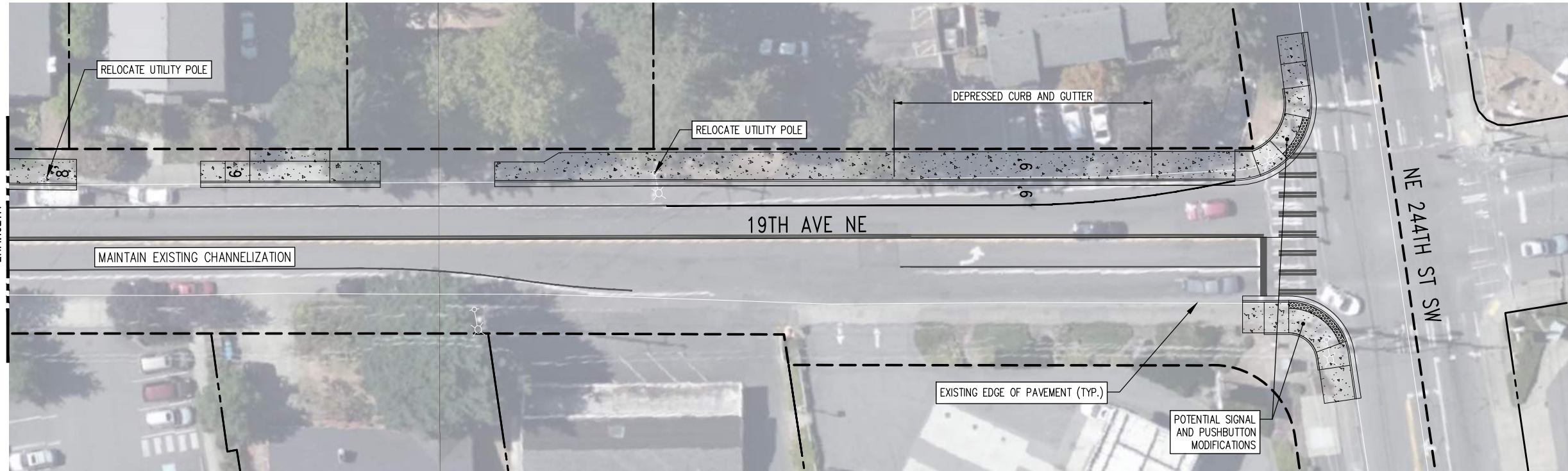
NEW SIDEWALK IMPLEMENTATION PLAN  
SHORELINE, WA

#73 - 19TH AVE NE (NE 196TH ST TO NE 244TH ST SW)  
CONCEPTUAL DESIGN

SHEET
73-2

Nov 30, 2021 - 9:15am  
charliea  
Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_73.dwg

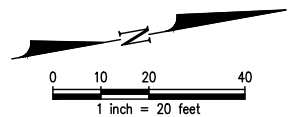
NE 1/4 SEC. 2 T26N R3E






Attachment A

- LEGEND
- RIGHT OF WAY
  - - - PARCEL (APPROX)
  - ==== CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - ==== CURB AND GUTTER
  - [Pattern] SIDEWALK
  - [Pattern] AMENITY ZONE

NOT FOR CONSTRUCTION



						DRAWN BY JYO	DESIGNED BY XXX				NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA				SHEET
						CHECKED BY NDA	APPROVED BY RJL				#73 - 19TH AVE NE (NE 196TH ST TO NE 244TH ST SW) CONCEPTUAL DESIGN				73-3
						DATE X/X/2021									
NO.	DATE	BY	CHD.	APPR.	REVISION	J O B No. :2000015		S C A L E: AS SHOWN		8a-59					



Nov 18, 2021 - 8:33am  
CharlieA  
Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_74.dwg

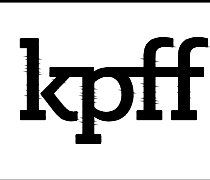
NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



Know what's below.  
Call before you dig.

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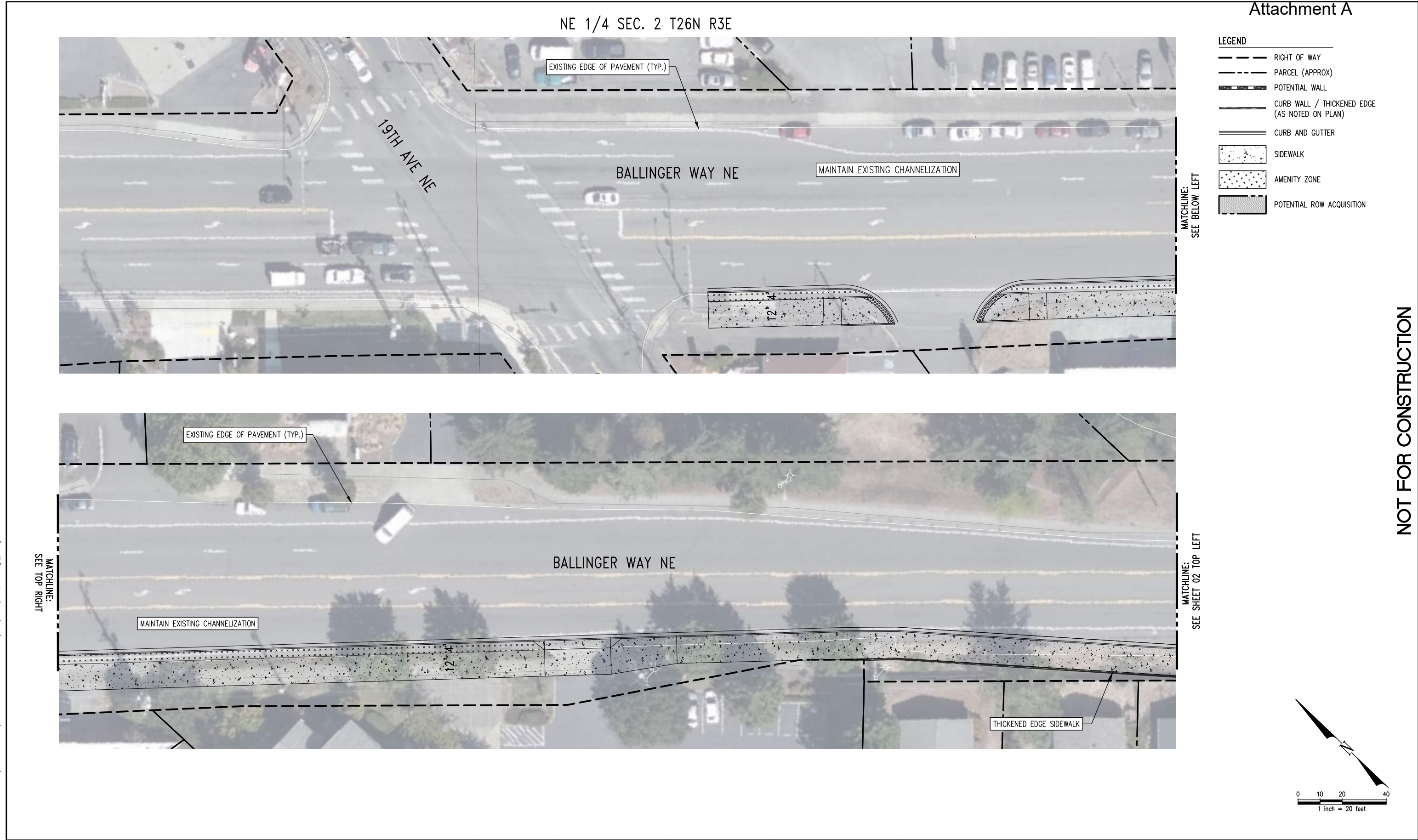
8a-60



NEW SIDEWALK IMPLEMENTATION PLAN  
SHORELINE, WA

#74 - BALLINGER WAY NE (19TH AVE NE TO 25TH AVE NE)  
CONCEPTUAL DESIGN









SHEET
74-1



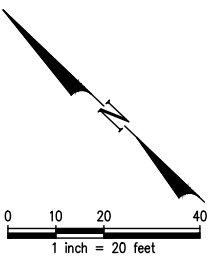





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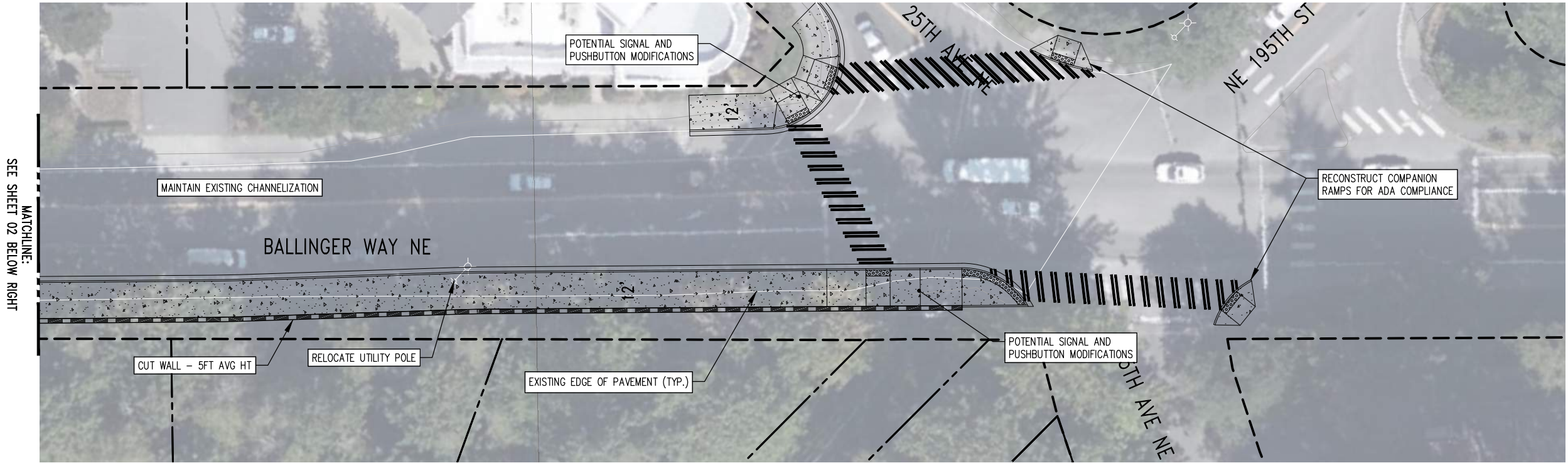


	RIGHT OF WAY
	PARCEL (APPROX)
	POTENTIAL WALL
	CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
	CURB AND GUTTER
	SIDEWALK
	AMENITY ZONE
	POTENTIAL ROW ACQUISITION

**MATCHLINE:  
SEE TOP RIGHT**

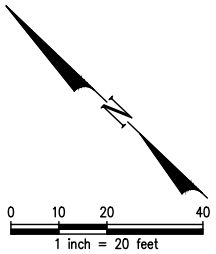


						DRAWN BY JYO	DESIGNED BY XXX					NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA		SHEET
					CHECKED BY NDA	APPROVED BY RJL						#74 – BALLINGER WAY NE (19TH AVE NE TO 25TH AVE NE) CONCEPTUAL DESIGN	74-2	
					DATE X/X/2021									
NO.	DATE	BY	CHD.	APPR.	REVISION		J O B No. :2000015	SCALE: AS SHOWN		8a-61				



- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - POTENTIAL WALL
  - CURB WALL / THICKENED EDGE (AS NOTED ON PLAN)
  - CURB AND GUTTER
  - SIDEWALK
  - AMENITY ZONE
  - POTENTIAL ROW ACQUISITION

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Nov 18, 2021 - 8:33am CharlieA Z:\2000001-2009999\2000015 Shoreline New Sidewalk Plan\CADD\Sheets\Conceptual Design\_74.dwg

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	

S C A L E:  
AS SHOWN

8a-62

NEW SIDEWALK IMPLEMENTATION PLAN  
SHORELINE, WA  
#74 - BALLINGER WAY NE (19TH AVE NE TO 25TH AVE NE)  
CONCEPTUAL DESIGN

SHEET
74-3

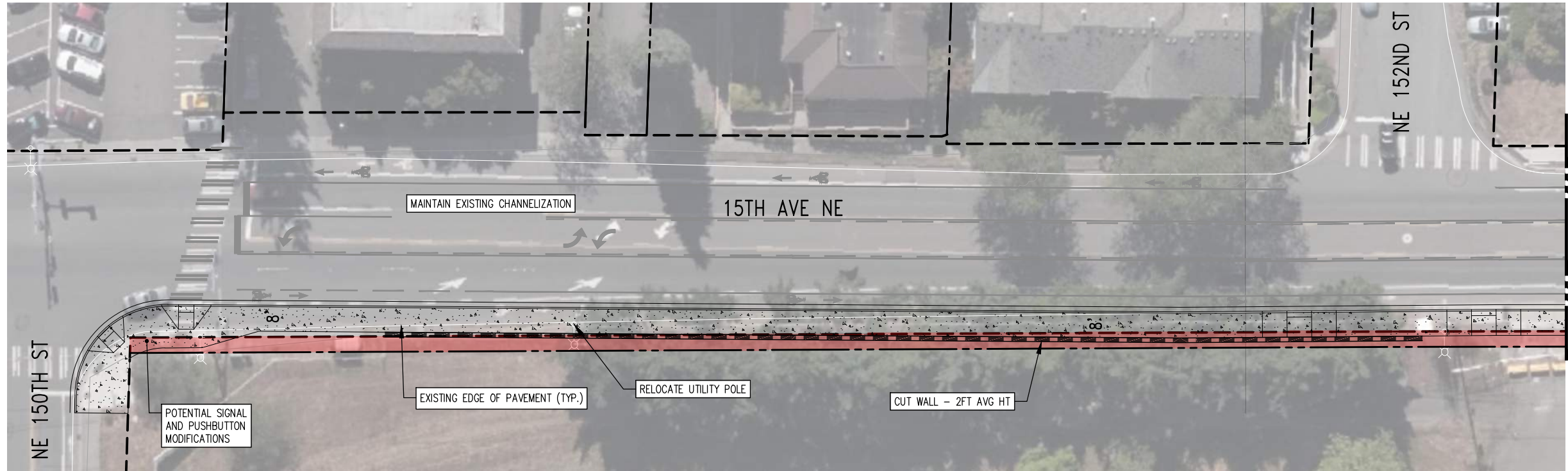


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charlea

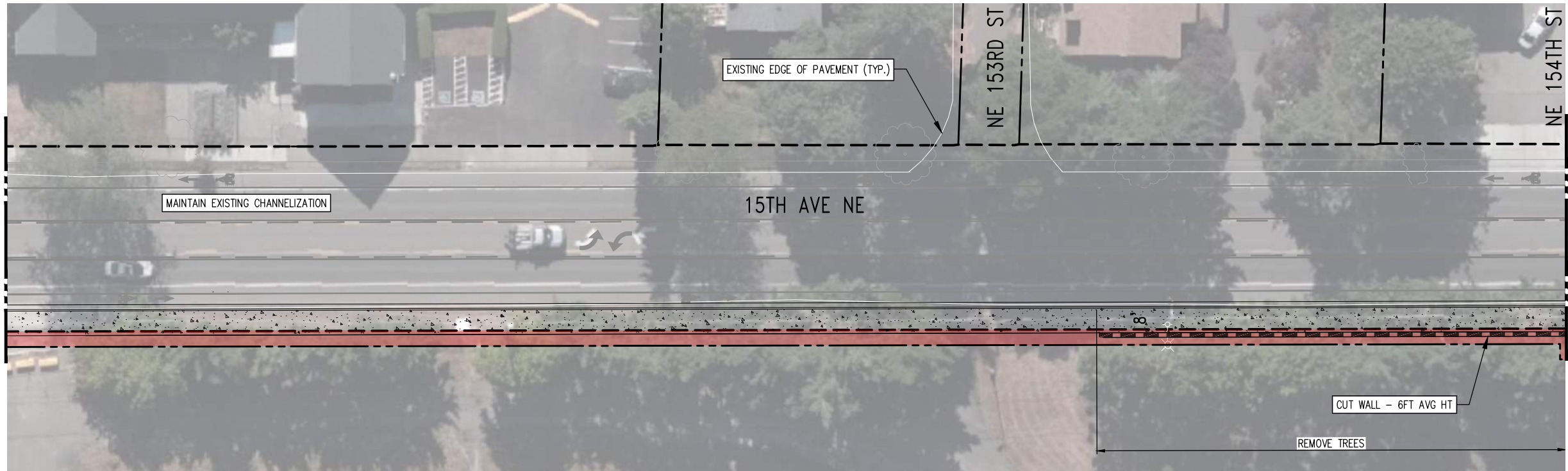
Dec 10, 2021 - 9:53am

NE 1/4 SEC. 2 T26N R3E

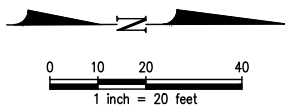


MATCHLINE:  
SEE BELOW LEFT

- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - POTENTIAL WALL
  - CURB AND GUTTER
  - SIDEWALK
  - POTENTIAL ROW ACQUISITION



MATCHLINE:  
SEE SHEET 02 TOP LEFT



NOT FOR CONSTRUCTION

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



8a-63

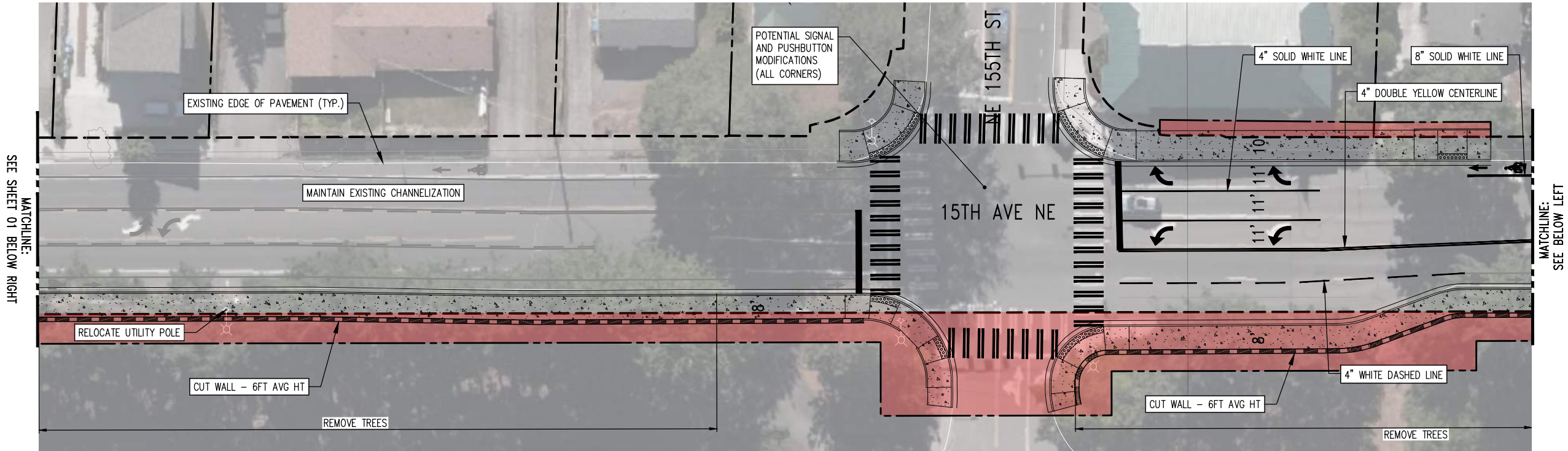


NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA
#98 - 15TH AVE NE (NE 150TH ST TO NE 160TH ST) CONCEPTUAL DESIGN

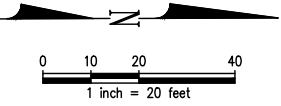
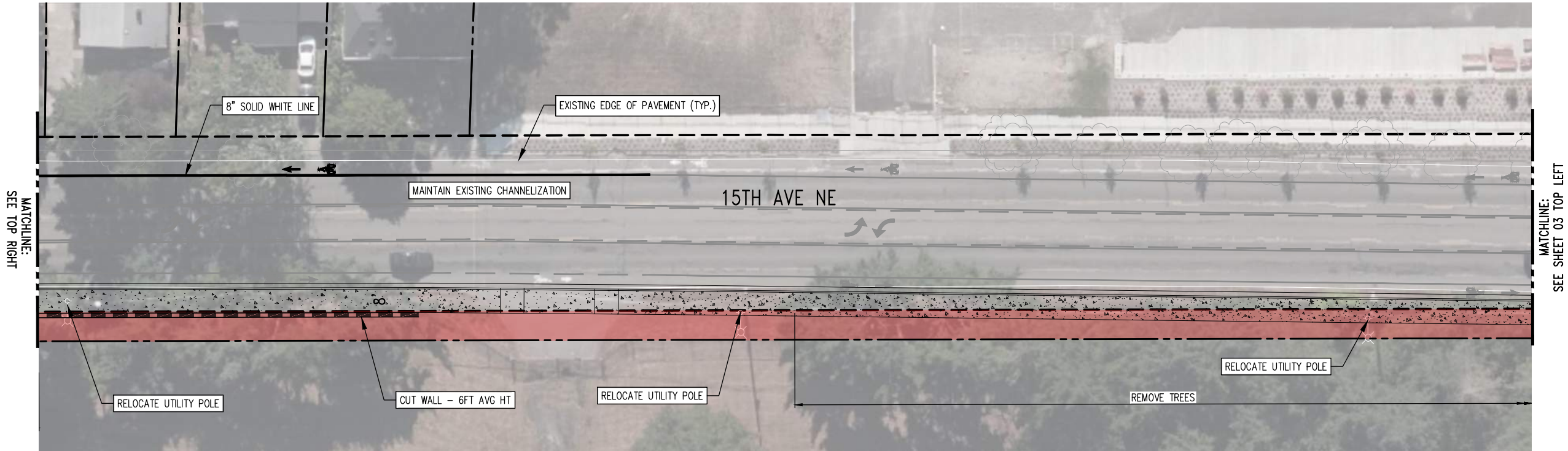
SHEET
98-1



NE 1/4 SEC. 2 T26N R3E



- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - POTENTIAL WALL
  - CURB AND GUTTER
  - SIDEWALK
  - POTENTIAL ROW ACQUISITION



NOT FOR CONSTRUCTION

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charlea

Dec 10, 2021 - 9:53am

NO.	DATE	BY	CHD.	APPR.	REVISION

DRAWN BY JYO	DESIGNED BY XXX
CHECKED BY NDA	APPROVED BY RJL
DATE X/X/2021	
J O B No.:2000015	



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SCALE:  
AS SHOWN



8a-64

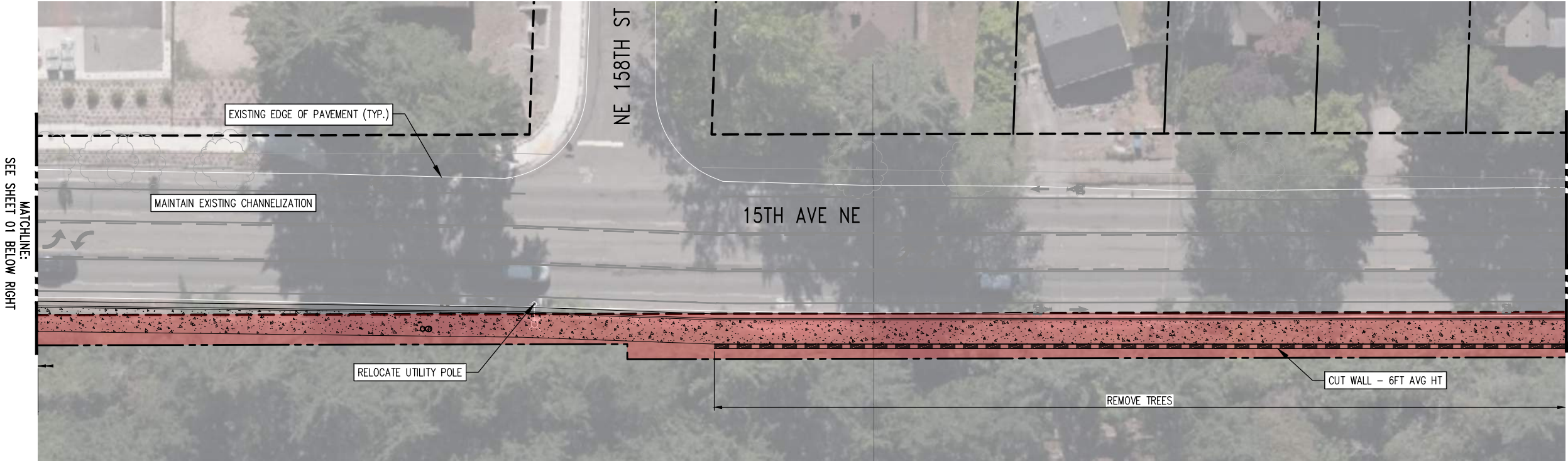


NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
#98 - 15TH AVE NE (NE 150TH ST TO NE 160TH ST) CONCEPTUAL DESIGN	

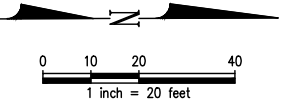
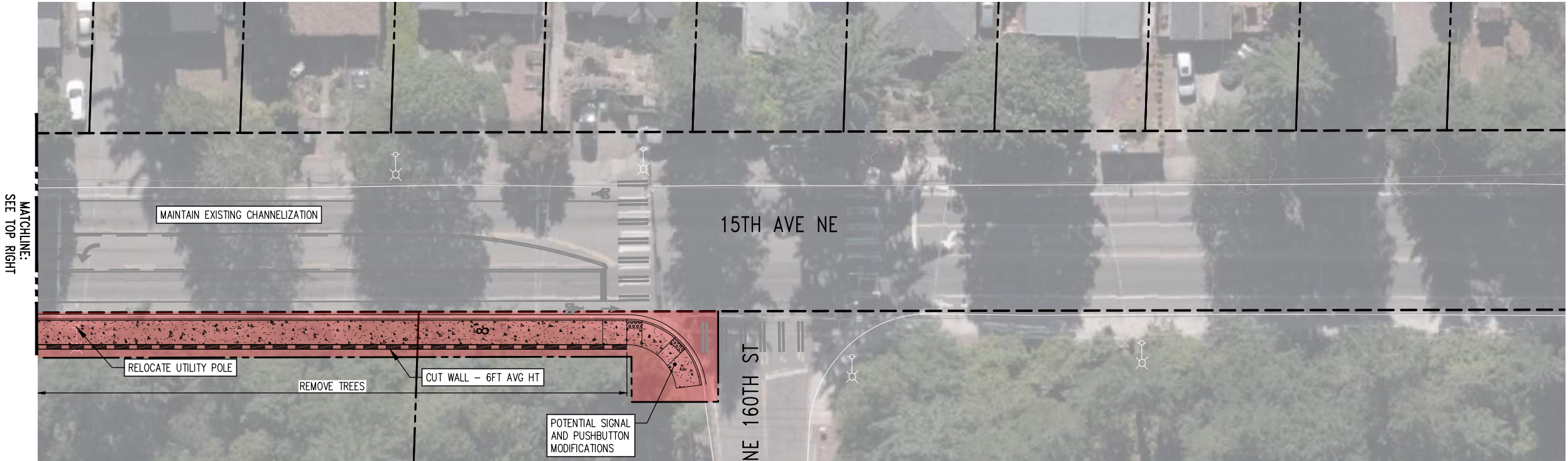
SHEET
98-2






NE 1/4 SEC. 2 T26N R3E



- LEGEND
- RIGHT OF WAY
  - PARCEL (APPROX)
  - POTENTIAL WALL
  - CURB AND GUTTER
  - SIDEWALK
  - POTENTIAL ROW ACQUISITION



NOT FOR CONSTRUCTION

						DRAWN BY JYO	DESIGNED BY XXX				NEW SIDEWALK IMPLEMENTATION PLAN SHORELINE, WA	
					CHECKED BY NDA	APPROVED BY RJL	#98 - 15TH AVE NE (NE 150TH ST TO NE 160TH ST) CONCEPTUAL DESIGN					
					DATE X/X/2021							
NO.	DATE	BY	CHD.	APPR.	REVISION		J O B No. :2000015	S C A L E: AS SHOWN		8a-65		

# Appendix B

Preliminary Cost Estimates



Client: City of Shoreline  
 Project: New Sidewalk Implementation Plan  
 4A - 20th Ave NW: Saltwater Park to NW 195th St  
 Job #: 2000015  
 By: C. Angell / N. Anderson  
 KPFF Consulting Engineers  
 Date: 11/30/2021



**Engineer's Estimate of Probable Cost**  
**Conceptual Design Submittal**

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL COST
<b>ROADWAY</b>					
001	MOBILIZATION	1	LS	\$55,000.00	\$55,000.00
002	CONSTRUCTION SURVEYING	1	LS	\$20,000.00	\$20,000.00
003	SPCC PLAN	1	LS	\$2,000.00	\$2,000.00
004	SWPPP PREPARATION AND MAINTENANCE	1	LS	\$5,000.00	\$5,000.00
005	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$50,000.00	\$50,000.00
006	EROSION/WATER POLLUTION CONTROL	1	LS	\$10,000.00	\$10,000.00
007	CLEARING AND GRUBBING	1	LS	\$10,000.00	\$10,000.00
008	REMOVE TREE	2	EA	\$1,500.00	\$3,000.00
009	REMOVAL OF STRUCTURE AND OBSTRUCTIONS	1	LS	\$10,000.00	\$10,000.00
010	ROADWAY EXCAVATION INCL. HAUL	680	CY	\$60.00	\$40,800.00
011	REMOVING CHANNELIZATION	1	LS	\$5,000.00	\$5,000.00
012	CRUSHED SURFACING TOP COURSE	190	TN	\$40.00	\$7,600.00
013	CRUSHED SURFACING BASE COURSE	130	TN	\$40.00	\$5,200.00
014	HMA Cl. 3/8" PG 58H-22	45	TN	\$150.00	\$6,750.00
015	HMA Cl. 1/2" PG 58H-22	85	TN	\$150.00	\$12,750.00
016	STORM DRAINAGE	1	LS	\$100,000.00	\$100,000.00
017	TYPE A CURB AND GUTTER	1,400	LF	\$50.00	\$70,000.00
018	CEMENT CONC. PEDESTRIAN CURB	40	LF	\$40.00	\$1,600.00
019	CEMENT CONC. CURB RAMP, PARALLEL	2	EA	\$4,000.00	\$8,000.00
020	CEMENT CONC. CURB RAMP, PERPENDICULAR	5	EA	\$4,000.00	\$20,000.00
021	PERMEABLE SIDEWALK	1,440	SY	\$150.00	\$216,000.00
022	PERMEABLE BALLAST	890	TN	\$55.00	\$48,950.00
023	RESIDENTIAL DRIVEWAY	11	EA	\$5,000.00	\$55,000.00
024	PERMANENT SIGNING	1	LS	\$5,000.00	\$5,000.00
025	PAINT LINE	3,670	LF	\$2.00	\$7,340.00
026	PLASTIC CROSSWALK LINE	510	SF	\$9.00	\$4,590.00
027	PLASTIC STOP LINE	34	LF	\$15.00	\$510.00
028	THICKENED EDGE SIDEWALK	269	LF	\$100.00	\$26,900.00
<b>Construction Cost Subtotal</b>					<b>\$806,990.00</b>
Design Contingency 25%					<b>\$202,000.00</b>
Sales Tax 0%					<b>\$0.00</b>
<b>Total Construction Cost</b>					<b>\$1,008,990.00</b>
Temporary Construction Easements (Approximate) 5%					\$50,500.00
Design Engineering 15%					\$151,348.50
Construction Management 10%					\$100,899.00
<b>Total Project Cost</b>					<b>\$ 1,311,737.50</b>

Client: City of Shoreline  
 Project: New Sidewalk Implementation Plan  
 4B - 20th Ave NW: Saltwater Park to NW 195th St  
 Job #: 2000015  
 By: C. Angell / N. Anderson  
 KPFF Consulting Engineers  
 Date: 11/30/2021



**Engineer's Estimate of Probable Cost**  
**Conceptual Design Submittal**

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL COST
<b>ROADWAY</b>					
001	MOBILIZATION	1	LS	\$25,000.00	\$25,000.00
002	CONSTRUCTION SURVEYING	1	LS	\$20,000.00	\$20,000.00
003	SPCC PLAN	1	LS	\$2,000.00	\$2,000.00
004	SWPPP PREPARATION AND MAINTENANCE	1	LS	\$5,000.00	\$5,000.00
005	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$50,000.00	\$50,000.00
006	EROSION/WATER POLLUTION CONTROL	1	LS	\$10,000.00	\$10,000.00
007	CLEARING AND GRUBBING	1	LS	\$10,000.00	\$10,000.00
008	REMOVE TREE	2	EA	\$1,500.00	\$3,000.00
009	REMOVAL OF STRUCTURE AND OBSTRUCTIONS	1	LS	\$10,000.00	\$10,000.00
010	ROADWAY EXCAVATION INCL. HAUL	460	CY	\$60.00	\$27,600.00
011	REMOVING CHANNELIZATION	1	LS	\$5,000.00	\$5,000.00
012	CRUSHED SURFACING TOP COURSE	290	TN	\$40.00	\$11,600.00
013	HMA CL. 1/2" PG 58H-22	320	TN	\$150.00	\$48,000.00
014	STORM DRAINAGE	1	LS	\$50,000.00	\$50,000.00
015	EXTRUDED CURB	950	LF	\$15.00	\$14,250.00
016	PERMANENT SIGNING	1	LS	\$5,000.00	\$5,000.00
017	PAINT LINE	3,670	LF	\$2.00	\$7,340.00
018	PLASTIC CROSSWALK LINE	510	SF	\$9.00	\$4,590.00
019	PLASTIC STOP LINE	35	LF	\$15.00	\$525.00
Construction Cost Subtotal					<b>\$308,905.00</b>
Design Contingency 25%					<b>\$78,000.00</b>
Sales Tax 0%					<b>\$0.00</b>
<b>Total Construction Cost</b>					<b>\$386,905.00</b>
Temporary Construction Easements (Approximate) 5%					\$19,345.25
Design Engineering 15%					\$58,035.75
Construction Management 10%					\$38,690.50
<b>Total Project Cost</b>					<b>\$ 502,976.50</b>

Client: City of Shoreline  
 Project: New Sidewalk Implementation Plan  
 21 - 8th Ave NW: Sunset Park to Richmond Beach Rd  
 Job #: 2000015  
 By: C. Angell / N. Anderson  
 KPFF Consulting Engineers  
 Date: 11/30/2021



**Engineer's Estimate of Probable Cost**  
**Conceptual Design Submittal**

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL COST
<b>ROADWAY</b>					
001	MOBILIZATION	1	LS	\$85,000.00	\$85,000.00
002	CONSTRUCTION SURVEYING	1	LS	\$20,000.00	\$20,000.00
003	SPCC PLAN	1	LS	\$2,000.00	\$2,000.00
004	SWPPP PREPARATION AND MAINTENANCE	1	LS	\$5,000.00	\$5,000.00
005	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$110,000.00	\$110,000.00
006	EROSION/WATER POLLUTION CONTROL	1	LS	\$20,000.00	\$20,000.00
007	ESC LEAD	180	DAY	\$100.00	\$18,000.00
008	CLEARING AND GRUBBING	1	LS	\$10,000.00	\$10,000.00
009	REMOVE TREE	20	EA	\$1,500.00	\$30,000.00
010	REMOVAL OF STRUCTURE AND OBSTRUCTIONS	1	LS	\$10,000.00	\$10,000.00
011	ROADWAY EXCAVATION INCL. HAUL	1,000	CY	\$60.00	\$60,000.00
012	REMOVING CHANNELIZATION	1	LS	\$5,000.00	\$5,000.00
013	CRUSHED SURFACING TOP COURSE	480	TN	\$40.00	\$19,200.00
014	CRUSHED SURFACING BASE COURSE	320	TN	\$40.00	\$12,800.00
015	HMA CL. 3/8" PG 58H-22	140	TN	\$150.00	\$20,960.87
016	HMA CL. 1/2" PG 58H-22	280	TN	\$150.00	\$42,000.00
017	STORM DRAINAGE	1	LS	\$170,000.00	\$170,000.00
018	TYPE A CURB AND GUTTER	1,930	LF	\$50.00	\$96,500.00
019	CEMENT CONC. CURB RAMP, PERPENDICULAR	4	EA	\$4,000.00	\$16,000.00
020	PERMEABLE SIDEWALK	1,500	SY	\$150.00	\$225,000.00
021	PERMEABLE BALLAST	930	TN	\$55.00	\$51,150.00
022	AMENITY STRIP LANDSCAPING	3,330	SF	\$25.00	\$83,250.00
023	RESIDENTIAL DRIVEWAY	12	EA	\$5,000.00	\$60,000.00
024	PERMANENT SIGNING	1	LS	\$5,000.00	\$5,000.00
025	PAINT LINE	10,090	LF	\$2.00	\$20,180.00
026	PLASTIC CROSSWALK LINE	95	SF	\$9.00	\$855.00
027	PLASTIC STOP LINE	35	LF	\$15.00	\$525.00
Construction Cost Subtotal					<b>\$1,198,420.87</b>
Design Contingency					<b>\$300,000.00</b>
Sales Tax					<b>\$0.00</b>
<b>Total Construction Cost</b>					<b>\$1,498,420.87</b>
Temporary Construction Easements (Approximate)		5%			\$74,921.04
Design Engineering		15%			\$224,763.13
Construction Management		10%			\$149,842.09
<b>Total Project Cost</b>					<b>\$ 1,947,947.13</b>

Client: City of Shoreline  
 Project: New Sidewalk Implementation Plan  
 34 - Dayton Ave N: N178th to N Richmond Beach Rd  
 Job #: 2000015  
 By: C. Angell / N. Anderson  
 KPFF Consulting Engineers  
 Date: 11/30/2021



**Engineer's Estimate of Probable Cost**  
**Conceptual Design Submittal**

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL COST
<b>ROADWAY</b>					
001	MOBILIZATION	1	LS	\$200,000.00	\$200,000.00
002	CONSTRUCTION SURVEYING	1	LS	\$30,000.00	\$30,000.00
003	SPCC PLAN	1	LS	\$2,000.00	\$2,000.00
004	SWPPP PREPARATION AND MAINTENANCE	1	LS	\$5,000.00	\$5,000.00
005	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$120,000.00	\$120,000.00
006	EROSION/WATER POLLUTION CONTROL	1	LS	\$20,000.00	\$20,000.00
007	ESC LEAD	180	DAY	\$100.00	\$18,000.00
008	CLEARING AND GRUBBING	1	LS	\$15,000.00	\$15,000.00
009	REMOVE TREE	25	EA	\$1,500.00	\$37,500.00
010	REMOVAL OF STRUCTURE AND OBSTRUCTIONS	1	LS	\$10,000.00	\$10,000.00
011	ROADWAY EXCAVATION INCL. HAUL	1,640	CY	\$60.00	\$98,400.00
012	REMOVING CHANNELIZATION	1	LS	\$5,000.00	\$5,000.00
013	CRUSHED SURFACING TOP COURSE	480	TN	\$40.00	\$19,200.00
014	CRUSHED SURFACING BASE COURSE	320	TN	\$40.00	\$12,800.00
015	HMA Cl. 3/8" PG 58H-22	110	TN	\$150.00	\$16,500.00
016	HMA Cl. 1/2" PG 58H-22	220	TN	\$150.00	\$33,000.00
017	STORM DRAINAGE	1	LS	\$250,000.00	\$250,000.00
018	TYPE A CURB AND GUTTER	3,550	LF	\$50.00	\$177,500.00
019	CEMENT CONC. PEDESTRIAN CURB	200	LF	\$40.00	\$8,000.00
020	CEMENT CONC. CURB RAMP, PARALLEL	3	EA	\$4,000.00	\$12,000.00
021	CEMENT CONC. CURB RAMP, PERPENDICULAR	5	EA	\$4,000.00	\$20,000.00
022	PERMEABLE SIDEWALK	3,410	SY	\$150.00	\$511,500.00
023	PERMEABLE BALLAST	2,100	TN	\$55.00	\$115,500.00
024	RESIDENTIAL DRIVEWAY	11	EA	\$5,000.00	\$55,000.00
025	PERMANENT SIGNING	1	LS	\$10,000.00	\$10,000.00
026	PAINT LINE	3,100	LF	\$2.00	\$6,200.00
027	PLASTIC CROSSWALK LINE	810	SF	\$9.00	\$7,290.00
028	PLASTIC STOP LINE	16	LF	\$15.00	\$240.00
<b>WALLS</b>					
029	GRAVITY BLOCK WALL	7,647	SF	\$120.00	\$917,592.00
030	CURB WALL	493	LF	\$100.00	\$49,300.00
031	THICKENED EDGE SIDEWALK	593	LF	\$100.00	\$59,300.00
Construction Cost Subtotal					<b>\$2,841,822.00</b>
Design Contingency				25%	<b>\$711,000.00</b>
Sales Tax				0%	<b>\$0.00</b>
<b>Total Construction Cost</b>					<b>\$3,552,822.00</b>
Temporary Construction Easements (Approximate)		5%			\$177,641.10
Design Engineering		15%			\$532,923.30
Construction Management		10%			\$355,282.20
<b>Total Project Cost</b>					<b>\$ 4,618,668.60</b>



Client: City of Shoreline  
 Project: New Sidewalk Implementation Plan  
 35B - Dayton Ave: N 155th to N 160th  
 Job #: 2000015  
 By: C. Angell / N. Anderson  
 KPFF Consulting Engineers  
 Date: 11/30/2021



**Engineer's Estimate of Probable Cost**  
**Conceptual Design Submittal**

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL COST
<b>ROADWAY</b>					
001	MOBILIZATION	1	LS	\$60,000.00	\$60,000.00
002	CONSTRUCTION SURVEYING	1	LS	\$20,000.00	\$20,000.00
003	SPCC PLAN	1	LS	\$2,000.00	\$2,000.00
004	SWPPP PREPARATION AND MAINTENANCE	1	LS	\$5,000.00	\$5,000.00
005	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$80,000.00	\$80,000.00
006	EROSION/WATER POLLUTION CONTROL	1	LS	\$20,000.00	\$20,000.00
007	ESC LEAD	180	DAY	\$100.00	\$18,000.00
008	CLEARING AND GRUBBING	1	LS	\$15,000.00	\$15,000.00
009	REMOVAL OF STRUCTURE AND OBSTRUCTIONS	1	LS	\$10,000.00	\$10,000.00
010	ROADWAY EXCAVATION INCL. HAUL	590	CY	\$60.00	\$35,400.00
011	REMOVING CHANNELIZATION	1	LS	\$5,000.00	\$5,000.00
012	CRUSHED SURFACING TOP COURSE	190	TN	\$40.00	\$7,600.00
013	CRUSHED SURFACING BASE COURSE	130	TN	\$40.00	\$5,200.00
014	HMA Cl. 3/8" PG 58H-22	50	TN	\$150.00	\$7,500.00
015	HMA Cl. 1/2" PG 58H-22	90	TN	\$150.00	\$13,500.00
016	STORM DRAINAGE	1	LS	\$120,000.00	\$120,000.00
017	TYPE A CURB AND GUTTER	1,360	LF	\$50.00	\$68,000.00
018	CEMENT CONC. CURB RAMP, PERPENDICULAR	11	EA	\$4,000.00	\$44,000.00
019	PERMEABLE SIDEWALK	1,170	SY	\$150.00	\$175,500.00
020	PERMEABLE BALLAST	720	TN	\$55.00	\$39,600.00
021	RESIDENTIAL DRIVEWAY	8	EA	\$5,000.00	\$40,000.00
022	PERMANENT SIGNING	1	LS	\$5,000.00	\$5,000.00
023	PLASTIC CROSSWALK LINE	570	SF	\$9.00	\$5,130.00
<b>WALLS</b>					
024	GRAVITY BLOCK WALL	140	SF	\$120.00	\$16,800.00
025	CURB WALL	20	LF	\$100.00	\$2,000.00
026	THICKENED EDGE SIDEWALK	35	LF	\$100.00	\$3,500.00
Construction Cost Subtotal					<b>\$823,730.00</b>
Design Contingency					25% <b>\$206,000.00</b>
Sales Tax					0% <b>\$0.00</b>
<b>Total Construction Cost</b>					<b>\$1,029,730.00</b>
Temporary Construction Easements (Approximate)		5%			\$51,486.50
Design Engineering		15%			\$154,459.50
Construction Management		10%			\$102,973.00
<b>Total Project Cost</b>					<b>\$ 1,338,649.00</b>

Client: City of Shoreline  
 Project: New Sidewalk Implementation Plan  
 40 - Westminster Way N: N 145th St to N 153rd St  
 Job #: 2000015  
 By: C. Angell / N. Anderson  
 KPFF Consulting Engineers  
 Date: 11/30/2021



**Engineer's Estimate of Probable Cost**  
**Conceptual Design Submittal**

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL COST
<b>ROADWAY</b>					
001	MOBILIZATION	1	LS	\$180,000.00	\$180,000.00
002	CONSTRUCTION SURVEYING	1	LS	\$50,000.00	\$50,000.00
003	SPCC PLAN	1	LS	\$2,000.00	\$2,000.00
004	SWPPP PREPARATION AND MAINTENANCE	1	LS	\$5,000.00	\$5,000.00
005	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$190,000.00	\$190,000.00
006	EROSION/WATER POLLUTION CONTROL	1	LS	\$20,000.00	\$20,000.00
007	ESC LEAD	180	DAY	\$100.00	\$18,000.00
008	CLEARING AND GRUBBING	1	LS	\$15,000.00	\$15,000.00
009	REMOVE TREE	12	EA	\$1,500.00	\$18,000.00
010	REMOVAL OF STRUCTURE AND OBSTRUCTIONS	1	LS	\$10,000.00	\$10,000.00
011	ROADWAY EXCAVATION INCL. HAUL	1,490	CY	\$60.00	\$89,400.00
012	REMOVING CHANNELIZATION	1	LS	\$5,000.00	\$5,000.00
013	CRUSHED SURFACING TOP COURSE	380	TN	\$40.00	\$15,200.00
014	CRUSHED SURFACING BASE COURSE	260	TN	\$40.00	\$10,400.00
015	HMA CI. 3/8" PG 58H-22	90	TN	\$150.00	\$13,500.00
016	HMA CI. 1/2" PG 58H-22	180	TN	\$150.00	\$27,000.00
017	STORM DRAINAGE	1	LS	\$280,000.00	\$280,000.00
018	TYPE A CURB AND GUTTER	2,840	LF	\$50.00	\$142,000.00
019	CEMENT CONC. PEDESTRIAN CURB	220	LF	\$40.00	\$8,800.00
020	CEMENT CONC. CURB RAMP, PARALLEL	4	EA	\$4,000.00	\$16,000.00
021	CEMENT CONC. CURB RAMP, PERPENDICULAR	2	EA	\$4,000.00	\$8,000.00
022	CEMENT CONC. CURB RAMP, DIRECTIONAL	11	EA	\$4,000.00	\$44,000.00
023	PERMEABLE SIDEWALK	3,170	SY	\$150.00	\$475,500.00
024	PERMEABLE BALLAST	1,960	TN	\$55.00	\$107,800.00
025	AMENITY STRIP LANDSCAPING	2,060	SF	\$25.00	\$51,500.00
026	RESIDENTIAL DRIVEWAY	5	EA	\$5,000.00	\$25,000.00
027	PERMANENT SIGNING	1	LS	\$10,000.00	\$10,000.00
028	PAINT LINE	160	LF	\$2.00	\$320.00
029	PLASTIC CROSSWALK LINE	1,010	SF	\$9.00	\$9,090.00
030	PLASTIC STOP LINE	70	LF	\$15.00	\$1,050.00
031	SIGNAL MODIFICATIONS	1	LS	\$150,000.00	\$150,000.00
<b>WALLS</b>					
032	GRAVITY BLOCK WALL	4,370	SF	\$120.00	\$524,400.00
033	CURB WALL	0	LF	\$100.00	\$0.00
034	THICKENED EDGE SIDEWALK	40	LF	\$100.00	\$4,000.00
Construction Cost Subtotal					<b>\$2,525,960.00</b>
Design Contingency				25%	<b>\$632,000.00</b>
Sales Tax				0%	<b>\$0.00</b>
<b>Total Construction Cost</b>					<b>\$3,157,960.00</b>
Right of Way Acquisition (Approximate)		1,500	SF	\$70.00	\$105,000.00
Temporary Construction Easements (Approximate)		5%			\$157,898.00
Design Engineering		15%			\$473,694.00
Construction Management		10%			\$315,796.00
<b>Total Project Cost</b>					<b>\$ 4,210,348.00</b>

Client: City of Shoreline  
 Project: New Sidewalk Implementation Plan  
 48 - Linden Ave N: N 175th St to N 185th St  
 Job #: 2000015  
 By: C. Angell / N. Anderson  
 KPFF Consulting Engineers  
 Date: 11/30/2021



**Engineer's Estimate of Probable Cost**  
**Conceptual Design Submittal**

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL COST
<b>ROADWAY</b>					
001	MOBILIZATION	1	LS	\$110,000.00	\$110,000.00
002	CONSTRUCTION SURVEYING	1	LS	\$30,000.00	\$30,000.00
003	SPCC PLAN	1	LS	\$2,000.00	\$2,000.00
004	SWPPP PREPARATION AND MAINTENANCE	1	LS	\$5,000.00	\$5,000.00
005	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$100,000.00	\$100,000.00
006	EROSION/WATER POLLUTION CONTROL	1	LS	\$20,000.00	\$20,000.00
007	ESC LEAD	180	DAY	\$100.00	\$18,000.00
008	CLEARING AND GRUBBING	1	LS	\$15,000.00	\$15,000.00
009	REMOVE TREE	2	EA	\$1,500.00	\$3,000.00
010	REMOVAL OF STRUCTURE AND OBSTRUCTIONS	1	LS	\$10,000.00	\$10,000.00
011	ROADWAY EXCAVATION INCL. HAUL	900	CY	\$60.00	\$54,000.00
012	REMOVING CHANNELIZATION	1	LS	\$5,000.00	\$5,000.00
013	CRUSHED SURFACING TOP COURSE	320	TN	\$40.00	\$12,800.00
014	CRUSHED SURFACING BASE COURSE	210	TN	\$40.00	\$8,383.65
015	HMA Cl. 3/8" PG 58H-22	75	TN	\$150.00	\$11,250.00
016	HMA Cl. 1/2" PG 58H-22	150	TN	\$150.00	\$22,500.00
017	STORM DRAINAGE	1	LS	\$230,000.00	\$230,000.00
018	TYPE A CURB AND GUTTER	2,360	LF	\$50.00	\$118,000.00
019	CEMENT CONC. CURB RAMP, PERPENDICULAR	13	EA	\$4,000.00	\$52,000.00
020	PERMEABLE SIDEWALK	1,770	SY	\$150.00	\$265,500.00
021	PERMEABLE BALLAST	1,090	TN	\$55.00	\$59,950.00
022	AMENITY STRIP LANDSCAPING	8,220	SF	\$25.00	\$205,500.00
023	RESIDENTIAL DRIVEWAY	16	EA	\$5,000.00	\$80,000.00
024	PERMANENT SIGNING	1	LS	\$15,000.00	\$15,000.00
025	PAINT LINE	8,670	LF	\$2.00	\$17,340.00
026	PLASTIC CROSSWALK LINE	610	SF	\$9.00	\$5,490.00
027	PLASTIC STOP LINE	50	LF	\$15.00	\$750.00
028	THICKENED EDGE SIDEWALK	863	LF	\$100.00	\$86,300.00
<b>Construction Cost Subtotal</b>					<b>\$1,562,763.65</b>
Design Contingency					25% <b>\$391,000.00</b>
Sales Tax					0% <b>\$0.00</b>
<b>Total Construction Cost</b>					<b>\$1,953,763.65</b>
Temporary Construction Easements (Approximate)					5% \$97,688.18
Design Engineering					15% \$293,064.55
Construction Management					10% \$195,376.37
<b>Total Project Cost</b>					<b>\$ 2,539,892.75</b>

Client: City of Shoreline  
 Project: New Sidewalk Implementation Plan  
 57 - Meridian Ave N: N 194th St to N 205th St  
 Job #: 2000015  
 By: C. Angell / N. Anderson  
 KPFF Consulting Engineers  
 Date: 11/30/2021



**Engineer's Estimate of Probable Cost**  
**Conceptual Design Submittal**

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL COST
<b>ROADWAY</b>					
001	MOBILIZATION	1	LS	\$130,000.00	\$130,000.00
002	CONSTRUCTION SURVEYING	1	LS	\$30,000.00	\$30,000.00
003	SPCC PLAN	1	LS	\$2,000.00	\$2,000.00
004	SWPPP PREPARATION AND MAINTENANCE	1	LS	\$5,000.00	\$5,000.00
005	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$100,000.00	\$100,000.00
006	EROSION/WATER POLLUTION CONTROL	1	LS	\$20,000.00	\$20,000.00
007	ESC LEAD	180	DAY	\$100.00	\$18,000.00
008	CLEARING AND GRUBBING	1	LS	\$15,000.00	\$15,000.00
009	REMOVE TREE	11	EA	\$1,500.00	\$16,500.00
010	REMOVAL OF STRUCTURE AND OBSTRUCTIONS	1	LS	\$10,000.00	\$10,000.00
011	ROADWAY EXCAVATION INCL. HAUL	950	CY	\$60.00	\$57,000.00
012	REMOVING CHANNELIZATION	1	LS	\$5,000.00	\$5,000.00
013	CRUSHED SURFACING TOP COURSE	350	TN	\$40.00	\$14,000.00
014	CRUSHED SURFACING BASE COURSE	230	TN	\$40.00	\$9,200.00
015	HMA Cl. 3/8" PG 58H-22	80	TN	\$150.00	\$12,000.00
016	HMA Cl. 1/2" PG 58H-22	160	TN	\$150.00	\$24,000.00
017	STORM DRAINAGE	1	LS	\$190,000.00	\$190,000.00
018	TYPE A CURB AND GUTTER	2,570	LF	\$50.00	\$128,500.00
019	CEMENT CONC. PEDESTRIAN CURB	60	LF	\$40.00	\$2,400.00
020	CEMENT CONC. CURB RAMP, PARALLEL	3	EA	\$4,000.00	\$12,000.00
021	CEMENT CONC. CURB RAMP, PERPENDICULAR	3	EA	\$4,000.00	\$12,000.00
022	PERMEABLE SIDEWALK	1,850	SY	\$150.00	\$277,500.00
023	PERMEABLE BALLAST	1,140	TN	\$55.00	\$62,700.00
024	PERMANENT SIGNING	1	LS	\$15,000.00	\$15,000.00
025	PAINT LINE	21,080	LF	\$2.00	\$42,160.00
026	PLASTIC CROSSWALK LINE	1,000	SF	\$9.00	\$9,000.00
027	PLASTIC STOP LINE	100	LF	\$15.00	\$1,500.00
<b>WALLS</b>					
028	GRAVITY BLOCK WALL	3,250	SF	\$120.00	\$390,000.00
029	CURB WALL	90	LF	\$100.00	\$9,000.00
030	THICKENED EDGE SIDEWALK	610	LF	\$100.00	\$61,000.00
Construction Cost Subtotal					<b>\$1,680,460.00</b>
Design Contingency					<b>\$421,000.00</b>
Sales Tax					<b>\$0.00</b>
<b>Total Construction Cost</b>					<b>\$2,101,460.00</b>
	Right of Way Acquisition (Approximate)	11,500	SF	\$70.00	\$805,000.00
	Temporary Construction Easements (Approximate)	0%			\$0.00
	Design Engineering	15%			\$315,219.00
	Construction Management	10%			\$210,146.00
<b>Total Project Cost</b>					<b>\$ 3,431,825.00</b>

Client: City of Shoreline  
 Project: New Sidewalk Implementation Plan  
 73 - 19th Ave NE: NE 196th St to 244th St SW  
 Job #: 2000015  
 By: C. Angell / N. Anderson  
 KPFF Consulting Engineers  
 Date: 11/30/2021



**Engineer's Estimate of Probable Cost**  
**Conceptual Design Submittal**

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL COST
<b>ROADWAY</b>					
001	MOBILIZATION	1	LS	\$80,000.00	\$80,000.00
002	CONSTRUCTION SURVEYING	1	LS	\$20,000.00	\$20,000.00
003	SPCC PLAN	1	LS	\$2,000.00	\$2,000.00
004	SWPPP PREPARATION AND MAINTENANCE	1	LS	\$5,000.00	\$5,000.00
005	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$100,000.00	\$100,000.00
006	EROSION/WATER POLLUTION CONTROL	1	LS	\$20,000.00	\$20,000.00
007	ESC LEAD	180	DAY	\$100.00	\$18,000.00
008	CLEARING AND GRUBBING	1	LS	\$15,000.00	\$15,000.00
009	REMOVE TREE	10	EA	\$1,500.00	\$15,000.00
010	REMOVAL OF STRUCTURE AND OBSTRUCTIONS	1	LS	\$10,000.00	\$10,000.00
011	ROADWAY EXCAVATION INCL. HAUL	780	CY	\$60.00	\$46,800.00
012	REMOVING CHANNELIZATION	1	LS	\$5,000.00	\$5,000.00
013	CRUSHED SURFACING TOP COURSE	240	TN	\$40.00	\$9,600.00
014	CRUSHED SURFACING BASE COURSE	160	TN	\$40.00	\$6,400.00
015	HMA Cl. 3/8" PG 58H-22	60	TN	\$150.00	\$9,000.00
016	HMA Cl. 1/2" PG 58H-22	110	TN	\$150.00	\$16,500.00
017	STORM DRAINAGE	1	LS	\$150,000.00	\$150,000.00
018	TYPE A CURB AND GUTTER	1,760	LF	\$50.00	\$88,000.00
019	CEMENT CONC. PEDESTRIAN CURB	180	LF	\$40.00	\$7,200.00
020	CEMENT CONC. CURB RAMP, PARALLEL	7	EA	\$4,000.00	\$28,000.00
021	CEMENT CONC. CURB RAMP, PERPENDICULAR	3	EA	\$4,000.00	\$12,000.00
022	CEMENT CONC. CURB RAMP, DIRECTIONAL	3	EA	\$4,000.00	\$12,000.00
023	PERMEABLE SIDEWALK	1,590	SY	\$150.00	\$238,500.00
024	PERMEABLE BALLAST	980	TN	\$55.00	\$53,900.00
025	AMENITY STRIP LANDSCAPING	500	SF	\$25.00	\$12,500.00
026	RESIDENTIAL DRIVEWAY	12	EA	\$5,000.00	\$60,000.00
027	PERMANENT SIGNING	1	LS	\$5,000.00	\$5,000.00
028	PAINT LINE	310	LF	\$2.00	\$620.00
029	PLASTIC CROSSWALK LINE	90	SF	\$9.00	\$810.00
030	PLASTIC STOP LINE	30	LF	\$15.00	\$450.00
031	THICKENED EDGE SIDEWALK	58	LF	\$100.00	\$5,800.00
032	SIGNAL MODIFICATIONS	1	LS	\$200,000.00	\$200,000.00
Construction Cost Subtotal					<b>\$1,253,080.00</b>
Design Contingency 25%					<b>\$314,000.00</b>
Sales Tax 0%					<b>\$0.00</b>
<b>Total Construction Cost</b>					<b>\$1,567,080.00</b>
Temporary Construction Easements (Approximate)		5%			\$78,354.00
Design Engineering		15%			\$235,062.00
Construction Management		10%			\$156,708.00
<b>Total Project Cost</b>					<b>\$ 2,037,204.00</b>

Client: City of Shoreline  
 Project: New Sidewalk Implementation Plan: Site 74  
 74 - Ballinger Way: 19th Ave NE to 25th Ave NE  
 Job #: 2000015  
 By: C. Angell / N. Anderson  
 KPFF Consulting Engineers  
 Date: 11/30/2021



**Engineer's Estimate of Probable Cost**  
**Conceptual Design Submittal**

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL COST
<b>ROADWAY</b>					
001	MOBILIZATION	1	LS	\$160,000.00	\$160,000.00
002	CONSTRUCTION SURVEYING	1	LS	\$30,000.00	\$30,000.00
003	SPCC PLAN	1	LS	\$2,000.00	\$2,000.00
004	SWPPP PREPARATION AND MAINTENANCE	1	LS	\$5,000.00	\$5,000.00
005	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$100,000.00	\$100,000.00
006	EROSION/WATER POLLUTION CONTROL	1	LS	\$20,000.00	\$20,000.00
007	ESC LEAD	180	DAY	\$100.00	\$18,000.00
008	CLEARING AND GRUBBING	1	LS	\$15,000.00	\$15,000.00
009	REMOVE TREE	5	EA	\$1,500.00	\$7,500.00
010	REMOVAL OF STRUCTURE AND OBSTRUCTIONS	1	LS	\$10,000.00	\$10,000.00
011	ROADWAY EXCAVATION INCL. HAUL	1,310	CY	\$60.00	\$78,600.00
012	REMOVING CHANNELIZATION	1	LS	\$5,000.00	\$5,000.00
013	CRUSHED SURFACING TOP COURSE	310	TN	\$40.00	\$12,400.00
014	CRUSHED SURFACING BASE COURSE	210	TN	\$40.00	\$8,400.00
015	HMA CI. 3/8" PG 58H-22	70	TN	\$150.00	\$10,500.00
016	HMA CI. 1/2" PG 58H-22	140	TN	\$150.00	\$21,000.00
017	STORM DRAINAGE	1	LS	\$200,000.00	\$200,000.00
018	TYPE A CURB AND GUTTER	2,290	LF	\$50.00	\$114,500.00
019	CEMENT CONC. PEDESTRIAN CURB	80	LF	\$40.00	\$3,200.00
020	CEMENT CONC. CURB RAMP, PARALLEL	1	EA	\$4,000.00	\$4,000.00
021	CEMENT CONC. CURB RAMP, PERPENDICULAR	8	EA	\$4,000.00	\$32,000.00
022	CEMENT CONC. CURB RAMP, DIRECTIONAL	5	EA	\$4,000.00	\$20,000.00
023	PERMEABLE SIDEWALK	2,840	SY	\$150.00	\$426,000.00
024	PERMEABLE BALLAST	1,750	TN	\$55.00	\$96,250.00
025	AMENITY STRIP LANDSCAPING	1,400	SF	\$25.00	\$35,000.00
026	RESIDENTIAL DRIVEWAY	1	EA	\$5,000.00	\$5,000.00
027	PERMANENT SIGNING	1	LS	\$5,000.00	\$5,000.00
028	PAINT LINE	270	LF	\$2.00	\$540.00
029	PLASTIC CROSSWALK LINE	1,110	SF	\$9.00	\$9,990.00
030	PLASTIC STOP LINE	50	LF	\$15.00	\$750.00
031	SIGNAL MODIFICATIONS	1	LS	\$100,000.00	\$100,000.00
<b>WALLS</b>					
031	GRAVITY BLOCK WALL	6,700	SF	\$120.00	\$804,000.00
032	THICKENED EDGE SIDEWALK	320	LF	\$100.00	\$32,000.00
<b>Construction Cost Subtotal</b>					<b>\$2,391,630.00</b>
Design Contingency				25%	<b>\$598,000.00</b>
Sales Tax				0%	<b>\$0.00</b>
<b>Total Construction Cost</b>					<b>\$2,989,630.00</b>
Right of Way Acquisition (Approximate)		2,000	SF	\$70.00	\$140,000.00
Temporary Construction Easements (Approximate)		5%			\$149,481.50
Design Engineering		15%			\$448,444.50
Construction Management		10%			\$298,963.00
<b>Total Project Cost</b>					<b>\$ 4,026,519.00</b>

Client: City of Shoreline  
 Project: New Sidewalk Implementation Plan  
 98 - 15th Ave NE: NE 150th St to NE 160th St  
 Job #: 2000015  
 By: C. Angell / N. Anderson  
 KPFF Consulting Engineers  
 Date: 12/13/2021



**Engineer's Estimate of Probable Cost**  
**Conceptual Design Submittal**

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL COST
<b>ROADWAY</b>					
001	MOBILIZATION	1	LS	\$200,000.00	\$200,000.00
002	CONSTRUCTION SURVEYING	1	LS	\$30,000.00	\$30,000.00
003	SPCC PLAN	1	LS	\$2,000.00	\$2,000.00
004	SWPPP PREPARATION AND MAINTENANCE	1	LS	\$5,000.00	\$5,000.00
005	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$100,000.00	\$100,000.00
006	EROSION/WATER POLLUTION CONTROL	1	LS	\$20,000.00	\$20,000.00
007	ESC LEAD	180	DAY	\$100.00	\$18,000.00
008	CLEARING AND GRUBBING	1	LS	\$15,000.00	\$15,000.00
009	REMOVE TREE	60	EA	\$1,500.00	\$90,000.00
010	REMOVAL OF STRUCTURE AND OBSTRUCTIONS	1	LS	\$10,000.00	\$10,000.00
011	ROADWAY EXCAVATION INCL. HAUL	1,360	CY	\$60.00	\$81,600.00
012	CRUSHED SURFACING TOP COURSE	420	TN	\$40.00	\$16,800.00
013	CRUSHED SURFACING BASE COURSE	280	TN	\$40.00	\$11,200.00
014	HMA CI. 3/8" PG 58H-22	100	TN	\$150.00	\$15,000.00
015	HMA CI. 1/2" PG 58H-22	190	TN	\$150.00	\$28,554.22
016	STORM DRAINAGE	1	LS	\$230,000.00	\$230,000.00
017	TYPE A CURB AND GUTTER	3,140	LF	\$50.00	\$157,000.00
018	CEMENT CONC. PEDESTRIAN CURB	240	LF	\$40.00	\$9,600.00
019	CEMENT CONC. CURB RAMP, PARALLEL	12	EA	\$4,000.00	\$48,000.00
020	CEMENT CONC. CURB RAMP, PERPENDICULAR	2	EA	\$4,000.00	\$8,000.00
021	PERMEABLE SIDEWALK	2,780	SY	\$150.00	\$417,000.00
022	PERMEABLE BALLAST	1,720	TN	\$55.00	\$94,600.00
023	AMENITY STRIP LANDSCAPING	120	SF	\$25.00	\$3,000.00
024	RESIDENTIAL DRIVEWAY	1	EA	\$5,000.00	\$5,000.00
025	PERMANENT SIGNING	1	LS	\$5,000.00	\$5,000.00
026	PAINT LINE	990	LF	\$2.00	\$1,980.00
027	PLASTIC CROSSWALK LINE	540	SF	\$9.00	\$4,860.00
028	PLASTIC STOP LINE	60	LF	\$15.00	\$900.00
029	SIGNAL MODIFICATIONS	1	LS	\$300,000.00	\$300,000.00
<b>WALLS</b>					
030	GRAVITY BLOCK WALL	10,290	SF	\$120.00	\$1,234,800.00
Construction Cost Subtotal					<b>\$3,162,894.22</b>
Design Contingency 25%					<b>\$791,000.00</b>
Sales Tax 0%					<b>\$0.00</b>
<b>Total Construction Cost</b>					<b>\$3,953,894.22</b>
Right of Way Acquisition (See Note 1)		0	SF	\$70.00	\$0.00
Temporary Construction Easements (Approximate)		5%			\$197,694.71
Design Engineering		15%			\$593,084.13
Construction Management		10%			\$395,389.42
<b>Total Project Cost</b>					<b>\$ 5,140,062.49</b>

Note 1: Due to the high probability of development on this corridor, potential ROW acquisition costs have not been included in this estimate



2018 Voter Approved Sidewalk Program: Financial Implementation Plan												
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029-2042
Project	& Phase	Project Costs										
1st Ave	Design	\$ -	\$ 267,683									
	Construct			\$ 599,973								
5th Ave	Design		\$ 80,544	\$ 161,000	\$ 390,000							
	Construct				\$ 1,531,456							
Implementation				\$ 197,529								
20th Ave	Design			\$ 5,543	\$ 385,796							
	Construct				\$ 1,116,375							
Westmin.	Design				\$ 398,368	\$ 714,164						
	Construct					\$ 3,506,170						
19th Ave	Design					\$ 210,896	\$ 367,604					
	Construct						\$ 1,834,900					
Ballinger	Design					\$ 466,224	\$ 765,187					
	Construct						\$ 3,516,549					
Dayton (178-RB)	Design						\$ 474,188	\$ 829,470				
	Construct							\$ 4,377,489				
Linden	Design						\$ 266,767	\$ 462,143				
	Construct							\$ 2,409,227				
Meridian	Design							\$ 635,222	\$ 845,368			
	Construct								\$ 2,877,337			
8th Ave	Design							\$ 202,338	\$ 352,180			
	Construct								\$ 2,042,989			
Dayton (155-160)	Design							\$ 143,711	\$ 246,684			
	Construct								\$ 1,406,420			
15th Ave	Design								\$ 417,918	\$ 813,307		
	Construct									\$ 5,591,839		
<b>TOTAL Cost</b>		\$ -	\$ 348,227	\$ 964,045	\$ 3,821,995	\$ 4,897,454	\$ 7,225,196	\$ 8,713,551	\$ 4,068,753	\$ 4,466,191	\$ 6,405,146	\$ -
Running Total		\$ -	\$ 348,227	\$ 1,312,272	\$ 5,134,267	\$ 10,031,721	\$ 17,256,916	\$ 25,970,467	\$ 30,039,221	\$ 34,505,411	\$ 40,910,558	\$ 40,910,558
Bond Schedule												
Initial Bond (1)			\$ 11,600,000									
Second Bond (2)							\$ 19,000,000					
Third Bond (3)										\$ 10,400,000		
Debt Interest Payments												
	(1)		462,221	399,550	374,550	348,300	320,800	297,600	273,600	248,600	216,100	590,300
	(2)						643,388	599,271	561,756	522,365	481,023	2,437,002
	(3)									471,818	439,455	2,933,854
<b>Total Debt Cost</b>		\$ -	\$ 462,221	\$ 861,771	\$ 1,236,321	\$ 1,584,621	\$ 2,548,808	\$ 3,445,680	\$ 4,281,035	\$ 5,523,818	\$ 6,660,397	\$ 12,621,553
Program Revenue												
Yearly		\$1,559,156	\$2,668,455	\$2,336,151	\$2,133,336	\$2,262,432	\$2,396,102	\$2,458,431	\$2,566,728	\$2,664,241	\$2,761,938	\$33,693,030
Running		\$1,559,156	\$4,227,610	\$6,563,762	\$8,697,098	\$10,959,530	\$13,355,631	\$15,814,062	\$18,380,790	\$21,045,031	\$23,806,970	\$57,500,000
<b>Remaining Balance</b>												<b>\$3,967,890</b>



## Memorandum

**DATE:** May 24, 2021

**TO:** Debbie Tarry, City Manager

**FROM:** Nytasha Sowers, Transportation Services Manager

**RE:** Sidewalk Prioritization Plan Update

**CC:** Randy Witt, Public Works Director  
Nora Daley-Peng, Senior Transportation Planner

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At the May 3, 2021 Council meeting, Council members asked City staff about the update process for the Sidewalk Prioritization Matrix. In response, this document provides a proposed approach to providing this update as well as how prioritized projects could be funded.

### Background

The 2011 Transportation Master Plan (TMP) includes a Pedestrian System Plan that identified and prioritized key roadways needing sidewalks to create a city-wide pedestrian network. In June 2017, the City began a process to create a Sidewalk Prioritization Plan, which would inform the update of the Transportation Master Plan (TMP), which needs to be completed by end of 2022. Major components of the plan included developing a data-driven process for prioritizing pedestrian improvements and researching and recommending ways to fund the priority projects. The process took over a year to complete including extensive involvement of a resident Sidewalk Advisory Committee (SAC) and included public input through two open houses and online surveys.

With the help of the SAC, the 2011 TMP criteria was regrouped into the following four categories to prioritize sidewalk projects:

- Safety - identifies locations in need of increased safety measures based on collisions, traffic speed and volume, as well as opportunities for trails or paths.
- Equity - provides support to populations who have the greatest need (e.g. children, older adults, people with disabilities, lower income communities, and under-served communities).

- Proximity - improves pedestrian connections to schools, parks, transit, and activity centers.
- Connectivity - builds a network of connected pedestrian routes.

The 2018 Sidewalk Prioritization Scorecard (Attachment A - template) assembles the updated criteria and metrics with an assigned point system for the purpose of reprioritizing the list of sidewalk projects in the TMP's Pedestrian System Plan. Using City traffic, U.S. Census and other local and regional data sources with the City's Geographic Information System (GIS), the project team applied the Sidewalk Prioritization Scorecard to the 2011 Pedestrian System Plan to create the Sidewalk Prioritization Plan (map) and Matrix. In June 2018, Council adopted the 2018 Sidewalk Prioritization Plan (map) as the City's "roadmap" for prioritizing the construction of a continuous, citywide sidewalk network.

#### Approach to Periodic Updates of the Sidewalk Prioritization Plan

Staff have evaluated the availability of new data to refresh input into the Sidewalk Prioritization Matrix and recommend a refresh of the data in the matrix that informs the Pedestrian System Plan approximately every five years timed with the availability of new U.S. Census data and updated development activity, and to revisit the prioritization criteria and metrics every 10 years in coordination with each TMP update. Refreshing the data every five years works well with the practice of evaluating five-year trends in traffic collisions as well as the U.S. Census American Community Survey (ACS) typical publication of five-year average data. In addition, a five-year update cycle provides enough time for a significant set of City capital and redevelopment projects to be implemented and the built (or securely funded) sidewalk segments to be removed from the Sidewalk Prioritization Plan so that only unfunded segments remain to move forward with the criteria update and determination of the next set of priority projects.

The five-year update cycle would put the next update of the Sidewalk Prioritization Plan in approximately 2023. In 2023, the City will update concurrency standards and Transportation Impact Fees (TIF). These efforts could help fund additional roadway projects that include sidewalks.

An update of the data input only into the Sidewalk Prioritization Matrix would involve multiple City departments and take approximately 200 hours of City staff time to complete. Staff do not recommend consideration of modifying the criteria or weighting on the Scorecard until the next TMP update as there was an extensive amount of community input into the development of the criteria and application of the scorecard to develop the Prioritization Matrix.

The following steps provide a high-level recommended 5-year approach to updating the plan:

- Integrate 5-year traffic data to refresh the Safety metrics.
- Acquire new demographic data to refresh the Equity metrics.

- Refresh/verify locations transit stops, parks (there will be at least two new parks, Edwin Pratt Park and Pump Station 26 by 2023), schools, other changes to key destinations to refresh the Proximity metrics.
- Refresh where new sidewalks have been constructed and added to the completed sidewalk network which will affect Connectivity metrics (i.e. filling gaps, extending sidewalk segments).
- Rescore the sidewalk segments (minus any completed segments and segments with secured funding such as the 12 sales tax funded priority projects and potentially capital projects under design). This method would utilize the new data on unfunded, unconstructed segments only.
- Update and publish a color-coded Sidewalk Prioritization Plan map and matrix. Consider showing funded projects not yet constructed as a separate category.

### Current Funding





The primary approach the City typically uses to fund sidewalk improvements are grants, partnerships with other agencies (such as Sound Transit) and redevelopment. Given the desire to build a significant number of sidewalk improvements, the City created a ballot measure, which was approved by voters in November 2018, to collect 0.2% Sales & Use Tax to construct a minimum of 12 identified new sidewalk segments and some sidewalk repair (Attachment B – map). Staff estimates completion of all twelve locations by 2030. As identified in the ballot measure, bonds will be issued to fund these improvements with the sales and use tax revenue paying for the bonds over a twenty-year period.



## Shoreline Sidewalk Prioritization Scorecard

Date: 5/22/18

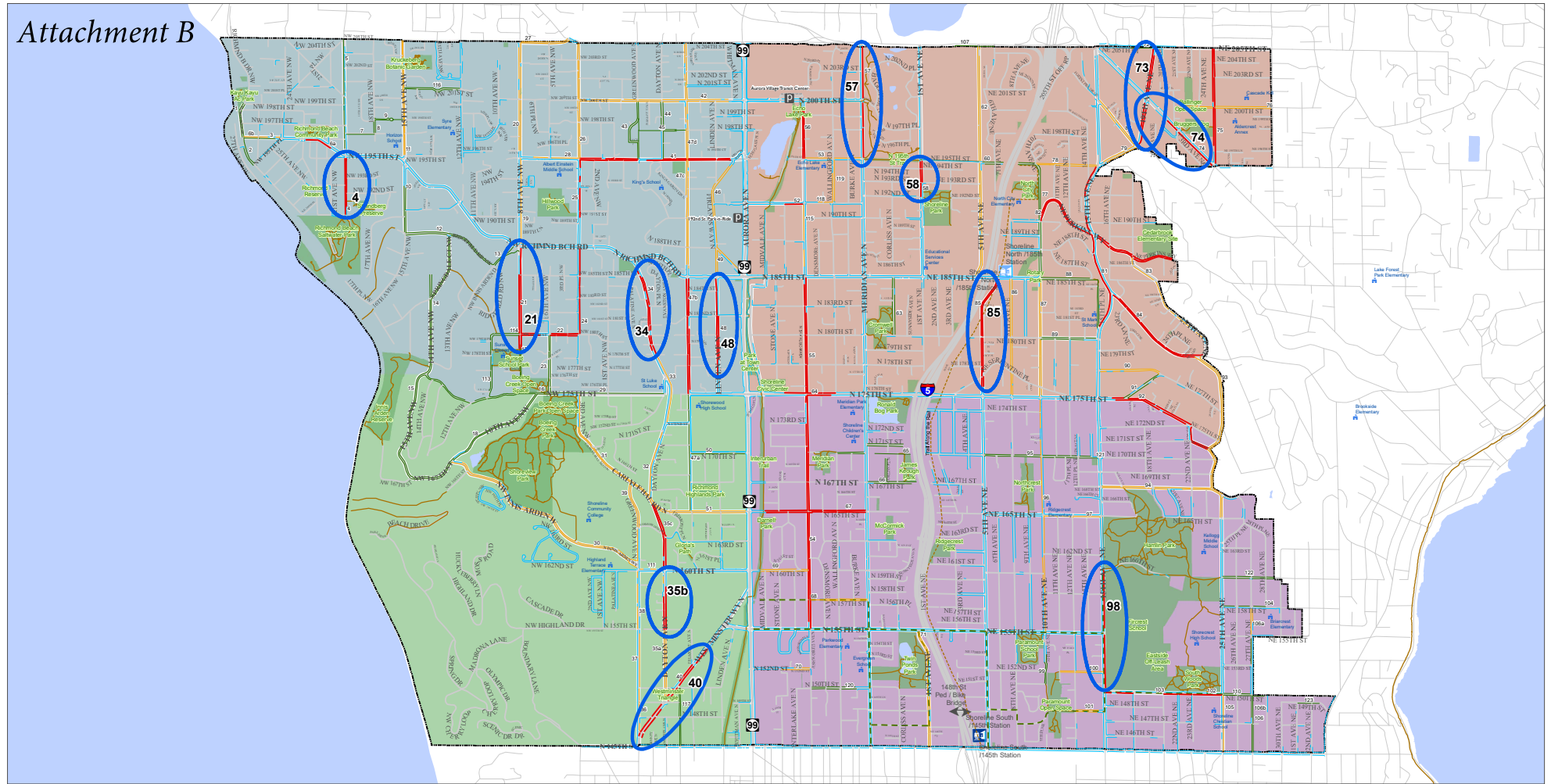
Attachment A **FINAL**

Criterion	Metric	Max.	Actual
<b>Safety</b>		<b>9</b>	
 Safety	Location has a <b>collision history</b> (auto and/or pedestrian):		
	(1 Point) At least <b>one injury collision</b> within the past five years	1	
	(1 Point) At least <b>one pedestrian/auto collision</b> within the past five years	1	
	(1 Point) <b>Two</b> or more <b>pedestrian/auto collisions</b> within the past five years	1	
	Location is along a street with <b>speed limit</b> :		
	(0 Point) ≤ 25 mph	0 or	
	(1 Point) = 30 mph	1 or	
	(2 Points) ≥ 35 mph	2	
	Location is along a street with <b>classification</b> of:		
	(1 Point) Collector Arterial	1 or	
	(2 Points) Minor Arterial	2 or	
	(3 Points) Principal Arterial	3	
	Improvement provides an <b>alternative to travel</b> along a motorized facility (1 Point) Trail or path through park or undeveloped right-of-way	1	
<b>Equity</b>		<b>6</b>	
 Equity	Improvement is within an area of concentrated need based on <b>age</b> :		
	(1 Point) Children: 18 years or younger	1	
	(1 Point) Older Adults: 60 years or older*	1	
	Improvement is within an area of concentrated need based on <b>income</b> (1 Point) ≤ 80% of median income for a family of two**	1	
	Improvement serves a concentrated <b>community of color</b> (1 Point) Top 20% of population density of households of people of color	1	
	Improvement serves a concentrated community with <b>disabilities</b> (1 Point) Top 20% of population density of households of people with a disability	1	
	Improvement serves a concentrated community of <b>limited English speakers</b> (1 Point) Top 20% of population density of households with a limited English speaker	1	
<b>Proximity</b>		<b>6</b>	
 Proximity	(1 Point) Improvement is along a school's <b>suggested routes to schools</b> map	1	
	(1 Point) Improvement is located within a ¼ mile radius of a <b>park</b>	1	
	(1 Point) Connects to an <b>activity center</b> (within a retail/business area or within a ¼ mile radius of civic building or community service)	1	
	Improvement is located within the vicinity of a <b>transit stop</b> :		
	(1 Point) Improvement is located <b>along a street</b> with <b>transit stops</b>	1	
	(1 Point) Improvement is located within a ¼ mile radius of a <b>bus stop</b>	1	
	(1 Point) Improvement is located within a ½ mile radius of an existing or planned <b>BRT stop or Light Rail Station</b>	1	
<b>Connectivity</b>		<b>2</b>	
 Connectivity	(1 Point) <b>Extends</b> an existing pedestrian facility	1 or	
	(2 Point) <b>Closes gap</b> within an existing pedestrian facility	2	
<b>Total Project Score</b>		<b>23</b>	

\* Eligibility for the Older Americans Act starts at age 60.

\*\* Eligibility threshold for King County Housing Authority residents is 80% of median income. U.S. Department of Housing and Urban Development (HUD) defines 50%-80% of median income as "Low Income".

Attachment B



Date: 8/1/2019

Request: 21824



Geographic Information System

This map is not an official map. No warranty is made concerning the accuracy, currency, or completeness of data depicted on this map.

## Prioritized Sidewalk Segments Included in the Voter-Approved November 2018 Ballot Measure

Project numbers listed on this map correspond  
with projects listed in the Council adopted  
Sidewalk Prioritization Plan

### Legend

#### TMP Projects

- High
- Medium
- Low
- Green Network
- Existing Sidewalk
- Existing Trail
- Planned Trail
- Planned Pedestrian/Bike Bridge

#### Quadrant



Priority Sidewalk Projects  
(Sales Tax Levy)

