

Memorandum

Environmental Review for the Bus Base North Project at 60% Design

Date: 07/27/2023
Project Name: Task Order 16 - Additional Environmental Analysis for BT001 Bus Base North
Project No: D3458616
Attention: Lesley Maurer
Company: Sound Transit
Copies to: Rick Capka (Sound Transit), Matthew Johnson (Jacobs)

Introduction

The Bus Base North (BBN) project is related to Sound Transit's proposed State Route (SR) 522/NE 145th Bus Rapid Transit (BRT) project and the Interstate 405 (I-405) BRT project and will support planned and future Sound Transit BRT service. The BBN project is a bus operations and maintenance facility on a 12.5-acre site designed to maintain, service, and store up to 120 buses. These buses include the fleet that will operate on the proposed I-405 and SR 522/NE 145th BRT lines, as well as Sound Transit Express buses from existing lines of bus service.

A State Environmental Policy Act (SEPA) checklist was completed, and a Determination of Non-Significance (DNS) was issued by Sound Transit on August 10, 2020, for the BBN project. The checklist addressed elements of the BBN project proposed within the boundaries of the subject parcel number 7052900200800. Sound Transit issued a SEPA Addendum to the DNS on August 5, 2021, to share an additional analysis with interested parties related to traffic and roadway conditions. These documents addressed the following:

- Bus maintenance and operations building
- Bus and other vehicle parking structure
- Security building
- Bus wash building
- Bus paint booth
- Fueling facility/support systems building with fuel storage
- Miscellaneous elements including landscaping, stormwater infrastructure, and street and sidewalk improvements

As the BBN project has progressed further into design, additional refinements have emerged. Although the general programming as described in the SEPA Checklist has remained the same, the following three types of design refinements are described and evaluated in this memorandum:

1. On-parcel design refinements to accommodate through-block connections
2. Off-parcel new design for adjacent roadway improvements
3. Temporary construction easements (TCEs)

The purpose of this memorandum is to provide additional information and analysis to address updated design elements and other changes to the BBN project.

Project Design and Footprint Refinements

The following paragraphs describe the updated design elements and other changes to the project. Figure 1 provides an overview of the project site.

On-parcel Refinements

The site design has evolved, influenced by value engineering results and continued coordination with permitting agencies. The current bus base design within subject parcel 7052900200800 includes through-block connections (pedestrian pathways required by City of Bothell code) on the north, south, and east perimeter of the site property; these connections are a new design element and are located within the landscaped perimeter included in the original design.

The project structures and elements as described in the SEPA Checklist (Sound Transit 2020) remain in the design, though the locations and sizes of some structures have changed as the design has been refined (Figure 2). The main change in building layout onsite is that the administration building is now located along the site frontage on 20th Avenue SE, not the maintenance building. The maintenance building is now located at the back (east end) of the site. The middle of the site would contain the bus storage and parking structure. The site remains largely paved with perimeter landscaping; there is no notable change in the amount of impervious surface.

Off-parcel Refinements

The project refinements proposed off of the parcel include improvements on 20th Avenue SE/214th Street SE (20th Avenue SE) roadway to support bus traffic associated with the project.

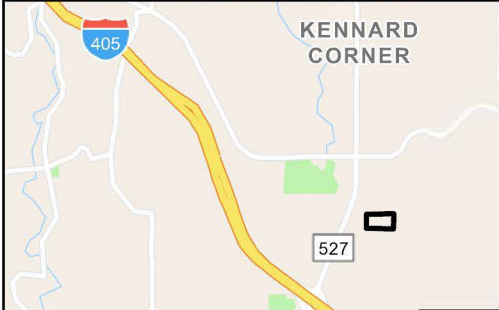
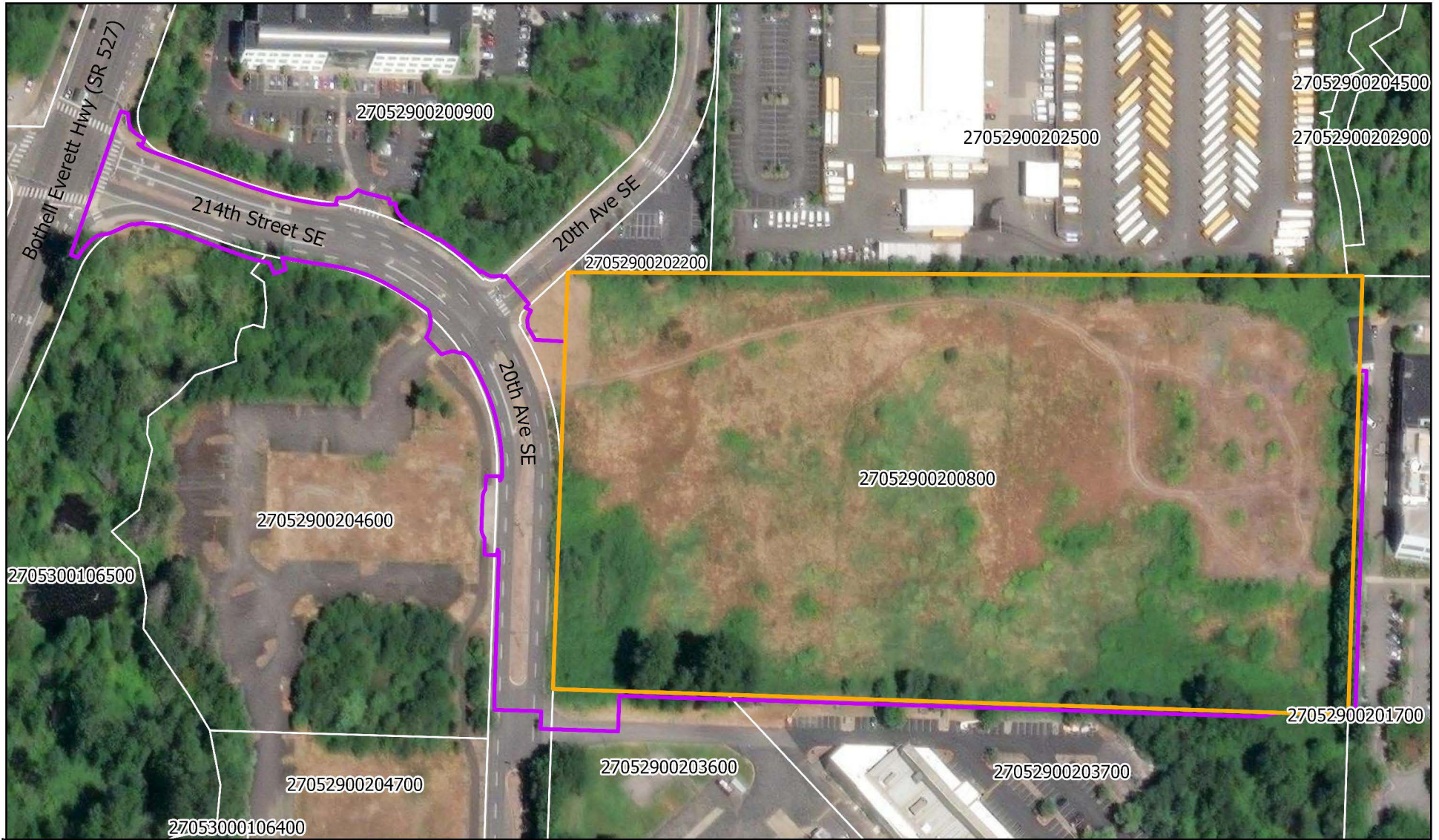
The off-parcel project refinement elements for evaluation are as follows; the construction footprint for these refinements is shown on Figure 1:

- Revised curb heights and adjacent sidewalk
- Roadway resurfacing and curb raise
- Driveway and intersection tie-ins

Off-parcel project refinements propose to raise existing curb lines by approximately 4 inches and improve the existing median and extend it approximately 250 feet; this provides for left-turn access into the site from 20th Avenue SE and a planter strip. Also included are roadway resurfacing and driveway and intersection and driveway tie-ins along 20th Avenue SE. The roadway resurfacing would raise the road profile by 4 inches. The tie-ins would provide three driveway access points for vehicle and bus access to the site as well as tie the resurfaced road into existing driveways and intersections along 20th Avenue SE. Grind and taper methods will be used to match current grades.

Temporary Construction Easements

The need for TCEs was acknowledged in the SEPA Checklist (Sound Transit 2020), although specific details were unknown. Design updates have identified the need for TCEs for stormwater electrical vault construction, site communication connections, and cut/fill and retaining walls, as well as grading and tree trimming activities.



- Parcels
- Existing Project Footprint
- Road Improvements and Temporary Construction Easement

Data Sources: City of Bothell, King County GIS
Background: King County Aerial, 2019

0 65 130 260 Feet



Project Area Map

Bus Base North

4/24/2023



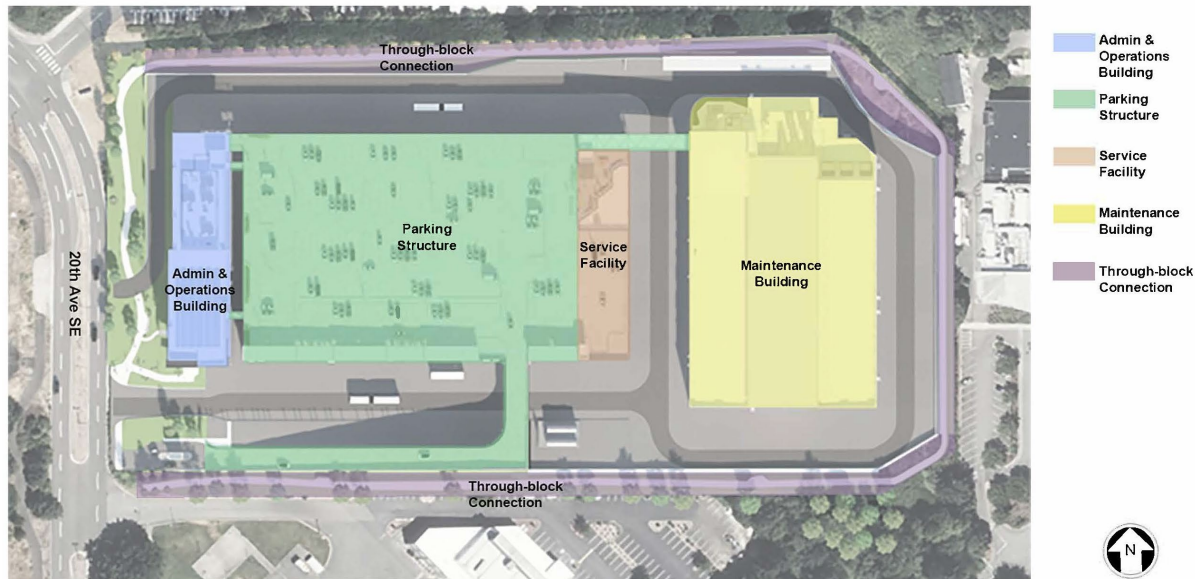


Figure 2. Site Plan

Changes in Environmental Elements

The potential impacts to earth, air, water, plants, and animals occurring with the proposed design and footprint refinements are similar to, and in the same watershed and general vicinity, as those addressed by the checklist, DNS, and addendum for the BBN project. The following sections discuss potential changes in environmental effects because of the design and footprint refinements for the BBN project. Changes related to the updated site plan for buildings and operations onsite would not result in impacts warranting additional environmental analysis and are not discussed further.

The following sections describe potential changes for the following environmental elements: water resources (that is, wetlands, streams and stormwater), land and shoreline use, and historic and cultural preservation. The changes do not result in additional impacts for the following, which are not discussed further in this memorandum: earth, air, plants, animals, energy and natural resources, hazardous materials, noise, housing, light and glare, parks and recreation resources, public services, and utilities.

Transportation

There are no likely changes to transportation resulting from on-parcel refinements.

Off-parcel Refinements

The proposed off-parcel roadway improvements are refinements of those summarized in the SEPA Checklist (driveways, median, sidewalks). The refinements would not generate vehicular trips in addition to those evaluated in the SEPA Checklist. Nor would the refinements change the types of vehicles (buses and personal vehicles) or traffic patterns assumed in the transportation analysis in the 2021 SEPA Addendum.

During some construction activities, temporary disruption to traffic may occur due to lane closures and reroutes. Trucks would be present during most phases of construction and would not be confined to the project site. No additional impacts to emergency response times or travel times are anticipated beyond that evaluated in the SEPA Checklist. Work would be scheduled to minimize disruption of existing vehicle traffic on streets in the vicinity.

Water Resources

Consistent with City of Bothell Municipal Code (BMC) 14.04.190(C)(4), the water resources study area has been updated to include streams, wetlands, and their associated buffers within 300 feet of the refined project area (on-parcel and off-parcel). The updated study area for water resources is shown on Figure 3. Additional impacts to water resources are summarized in Table 1.

Table 1. New Impacts to Water Resources (temporary/permanent)

New Impacts	On-Parcel	Off-Parcel	TCE	TOTAL
Temporary stream buffer	0.16 acre (SBO-1)	0.1 acre (SBO-2 / SBO-3)	0.04 acre (SBO-1)	0.3 acre
Permanent stream buffer	0.03 acre (SBO-1)	N/A	N/A	0.05 acre
Temporary wetland buffer	<0.01 acre (WBO-3 ^a)	0.01 acre (WBO-7)	0.02 acre (WBO-5 and WBO-7)	0.03 acre

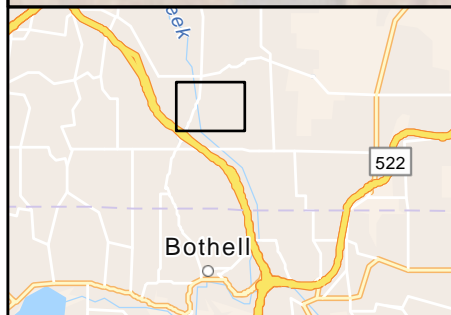
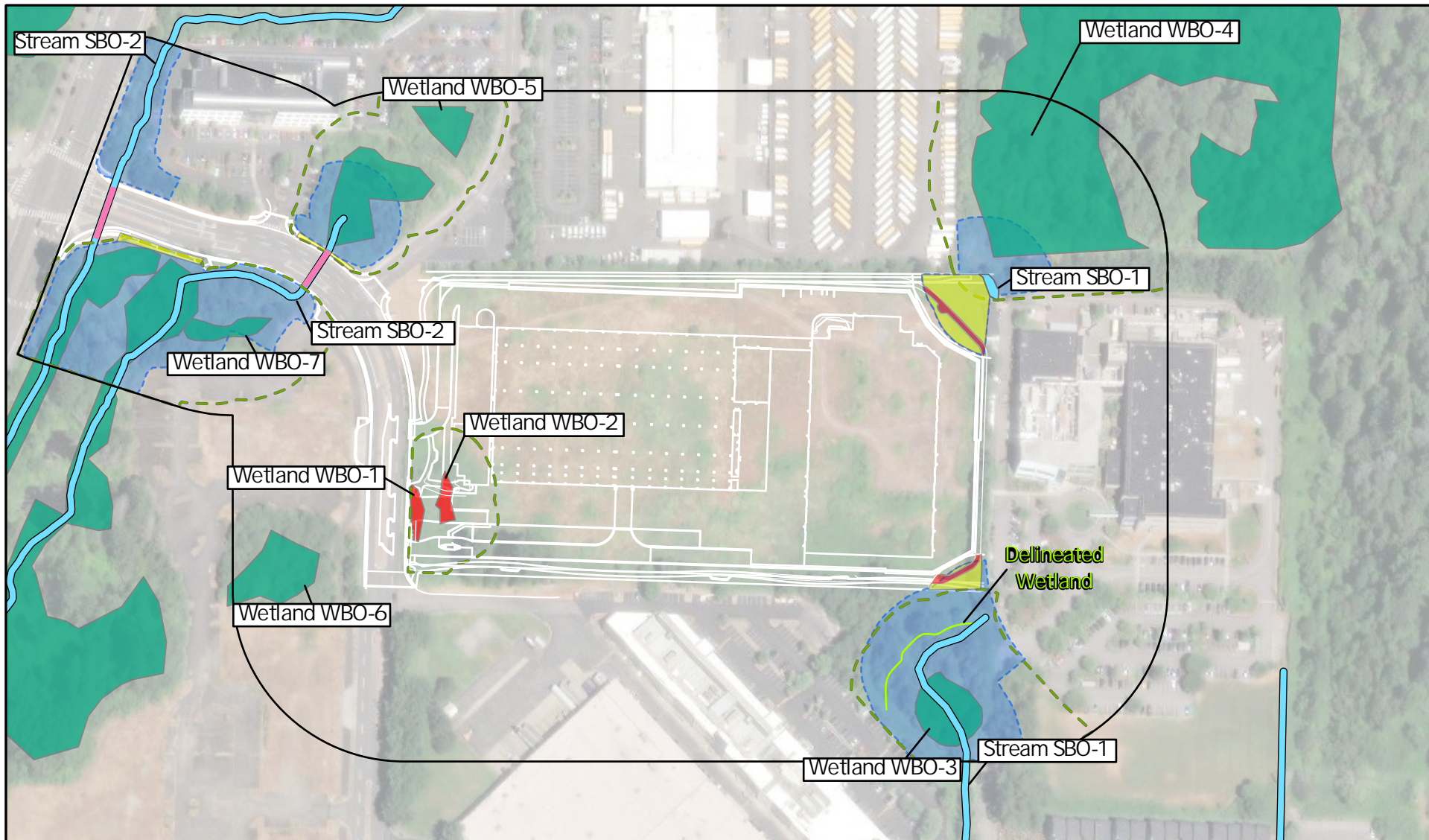
^a Overlaps Stream SBO-1 buffer.

N/A = not applicable

Water Resources in Study Area

Sound Transit conducted additional fieldwork in 2023 to confirm and characterize wetland and stream resources affected by the off-parcel refinements and the TCEs once the TCEs for the roadway work have been obtained. The information in this section is based on geographic information system (GIS) data available from the City of Bothell, desktop research provided for the 2020 SEPA analysis, and Sound Transit biologist field observations in 2023 that confirmed the 2020 desktop research. Stream SBO-2 is approximately 100 feet to the west of the BBN parcel (across 20th Avenue SE from the parcel). Stream SBO-2 is an unnamed tributary to North Creek that flows southwest. The stream originates in Wetland WBO-5 and flows through Wetland WBO-7 within the study area.

Stream SBO-3 is about 400 feet west of Stream SBO-2. It originates near Bothell-Everett Highway just north of 214th Street, runs in a culvert under the street, then flows southwest through Wetland WBO-5. Both tributaries merge outside the study area, then flow southwest before joining North Creek approximately 0.2 mile from the road crossing at 214th Street SE. Stream SBO-2 and Stream SBO-3 are classified as fish-bearing (Type F) streams with intermittent flow, with no documented use by salmonids. Thus, according to BMC 14.04.930.D.2, they have a regulatory buffer of 100 feet.



- 300' Buffer around Project Site
- Wetlands - City of Bothell ECA Data
- Wetland Buffer
- Stream Buffer - 100'
- Project Linework
- Rivers and Streams - City of Bothell ECA Data
- Culvert
- Permanent Impact Area
- Temporary Impact Area

Data Sources: Cities of Bothell, Lake Forest Park, Kenmore, Seattle, and Shoreline; King County GIS
Background: King County Aerial, 2019

0 250 500 Feet

3

Wetlands and Streams Map

Bus Base North

3/24/2023

SOUNDTRANSIT

On-parcel Refinements

The on-parcel through-block connections are paved trails that would be built near Wetland WBO-3, Wetland WBO-4, and Stream SBO-1. These trails are located outside of the wetland buffers. However, temporary impacts to soils and vegetation may occur within WBO-3 buffer areas during construction requiring revegetation. Plantings would include native trees, shrubs, and herbaceous species. A TCE will be needed along the east side of the property to construct the through-block connections. This TCE overlaps with a wetland and stream buffer. Project activities of tree trimming in this TCE will be minimized and conducted using the best management practices (BMPs) per BMC 14.01.150 and are not expected to impact the buffers. Vegetation cut (tree stems, branches, etc.) will be left within the buffer, as appropriate.

Off-parcel Refinements and Temporary Construction Easements

The refinements would not impact the existing piped Stream SBO-2 because activities would not reduce the ground cover over the pipe. Connectivity between the wetland and drainage feature would be maintained during construction. Temporary impacts to wetland buffers associated with road improvements along 214th Street SE would occur at wetlands WBO-5 and WBO-7. These temporary impacts would also occur in the SBO-2 stream buffer, which overlaps the WBO-5 and WBO-7 wetland buffers, and in the SBO-3 stream buffer, which overlaps the WBO-5 buffer. This work would occur within the existing paved surface areas but may temporarily impact the vegetated edge along the paved roadway. Temporary construction activity may occur on grass currently maintained by mowing. Some trimming of existing shrubs may be required. The disturbed area would be replanted with grass, and shrubs would be allowed to regrow following the improvements.

Current design updates would result in temporary wetland buffer impacts for resources WBO-3, WBO-5, and WBO-7. No permanent structures would be placed in the wetland buffers and permanent impacts have been avoided through project design. Table 1 provides anticipated new impacts to water resources within the study area.

In the SEPA Checklist (Sound Transit 2020), onsite paving was assumed to permanently impact 0.4 acre of wetland buffer (WBO-3). No temporary or permanent impacts were assumed within the stream itself or within the stream's regulatory buffer (100 feet). The additional potential temporary effects to Streams SBO-2 and SBO-3 buffer would not impact the fish habitat of these classified fish-bearing (Type F) streams. Work within the stream and wetland buffers will be mitigated to meet the city's requirements. Work in wetlands, buffers (stream and wetland), and fish and wildlife habitat conservation areas will require restoration and mitigation to meet BMC 14.04.230 (mitigation and monitoring), 14.04.210 (mitigation sequencing), 14.04.540 (wetland compensatory mitigation and restoration requirements), and 14.04.930 (performance standards – specific habitats).

Land and Shoreline Use

Temporary Construction Easements

As the project design has advanced, property needs for TCEs have been identified for the construction of the project. The known TCE needs are presented in Table 2. The TCEs would be restored to preconstruction condition following the completion of construction. The parcels with TCEs are shown on Figure 1. Sound Transit will restore TCEs to prior condition after construction; therefore, no additional impacts are anticipated.

Table 2. Temporary Construction Easement Parcels

Parcel ID	Temporary Constructure Easement Purpose
27052900200900	Driveway tie-in
27052900202300	Roadway improvements
27052900202200	Roadway, sidewalk, drainage, and landscaping
27052900204600	Driveway tie-in
27052900203600	Stormwater, electrical, and communication construction
27052900203700	Grading and construction of cut or fill wall
27052900201700	Limbing trees and construction of cut wall for grading; Sidewalks

Aesthetic and Visual Resources

On-parcel Refinements

Updated project views are shown in this section (Figures 4 and 5). These visualizations are based on current design (not final design) and are intended to illustrate the height, bulk, and scale of the bus base facility. Design decisions related to the building façade articulation, color palettes, and public art are pending, so the aesthetic features shown in the visualizations are conceptual. Also, the landscaping shown does not reflect the final landscape design. The height, bulk, and scale shown in the visualizations are consistent with what was presented in the BBN Visual and Aesthetics Resources Technical Memorandum (Attachment E to the SEPA Checklist [Sound Transit 2020]). The parking structure is anticipated to be approximately 35 feet tall to the top of the stair tower, a 5-foot increase in height. The maintenance and operations building would be approximately 43 feet tall, a 8-foot increase in height.

The SEPA Checklist concluded that the project was not anticipated to change the existing aesthetics or visual quality of the project area. On the parcel, the new structures and landscaping were considered visually similar to existing adjacent development; therefore, the BBN project would not create adverse impacts on aesthetics or visual quality because viewers would retain a sense of visual order. Neither the off-parcel nor the on-parcel refinements would change these conclusions.



Figure 4. View looking toward the southwest corner of the project site



Figure 5. View looking east across 20th Avenue SE toward the project site

Historic and Cultural Preservation

On-and Off-parcel Refinements

The 2020 SEPA Checklist conducted a pedestrian surface survey and subsurface survey to evaluate the potential to impact historical and archaeological resources within the original Area of Impact (AI). No precontact or historic-period archaeological remains were identified during the pedestrian or subsurface survey. The original AI included the proposed BBN project site plus the parcels immediately adjacent, including part of 20th Avenue SE. The update to the original AI includes the area for the offsite 20th Avenue SE improvements with a 50-foot buffer around the disturbance area, including TCEs. Attachment 1 includes a figure that shows the original AI and the updated AI.

The proposed offsite refinements are not anticipated to result in impacts to archaeological sites. Most of the roadway refinements would be located within the original AI. The portion of the offsite roadway refinements not in the original AI is part of the existing roadway and is immediately adjacent to the original AI, and it is reasonable to assume that conditions in this new area are similar to those identified within the original AI. The SEPA Checklist concluded that no impacts to archaeological sites are expected given the evidence of widespread fill and disturbance in the AI (Sound Transit 2020). There are no historic register-eligible buildings or structures within the original or revised AI; therefore, the project would result in no impact to historic properties.

No additional cultural resources evaluation is needed.

Conclusion

As the lead agency for the project under SEPA, Sound Transit has evaluated the BBN 60% design submittal for additional environmental analysis and has determined that no further analysis is required at this time in order for work to proceed. The proposed BBN project revisions would not substantially change the analysis of significant impacts in the 2020 SEPA Checklist or the 2021 SEPA Addendum; nor are the revisions likely to have significant adverse environmental impacts. Construction is anticipated to start in 2024 and be completed in 2026. The proposed construction duration would be the same as was described in the 2020 SEPA Checklist (Sound Transit 2020).

References

Sound Transit. 2020. [Bus Base North SEPA Environmental Checklist](#). Sound Transit, Seattle.

Sound Transit. 2021. [Bus Base North SEPA DNS Addendum](#). Sound Transit, Seattle.

Memorandum

ATTACHMENT 1

Environmental Review for Bus Base North Cultural Resources Memorandum

CULTURAL RESOURCES REPORT COVER SHEET

Author: Matthew Sterner

Title of Report: Additional SEPA Review for Bus Base North, Cultural Resources

Date of Report: July 27, 2023

County(ies): Snohomish Section: 29 Township: 27N Range: 5E

Quad: Bothell, WA Acres: 1

PDF of report submitted (REQUIRED) ☒ Yes

Historic Property Inventory Forms to be Approved Online? ☐ Yes ☒ No

Archaeological Site(s)/Isolate(s) Found or Amended? ☐ Yes ☒ No

TCP(s) found? ☐ Yes ☒ No

Replace a draft? ☐ Yes ☒ No

Satisfy a DAHP Archaeological Excavation Permit requirement? ☐ Yes # ☒ No

Were Human Remains Found? ☐ Yes DAHP Case # ☒ No

DAHP Archaeological Site #:

- Submission of PDFs is required.
- Please be sure that any PDF submitted to DAHP has its cover sheet, figures, graphics, appendices, attachments, correspondence, etc., compiled into one single PDF file.
- Please check that the PDF displays correctly when opened.

Memorandum

Environmental Review for Bus Base North, Cultural Resources

Date: 07/27/2023
Project Name: Task Order 16 – Additional Environmental Analysis for BT001 Bus Base North
Project No: D3458616
Attention: Alex Stevenson, Cultural Resources Manager, Sound Transit
Company: Sound Transit
Copies to: Lesley Maurer (Sound Transit), Maya Hunnewell (Jacobs)

Introduction

The Bus Base North (BBN) project is the bus operations and maintenance facility for Sound Transit's State Route (SR) 522/NE 145th Bus Rapid Transit (BRT) project and the Interstate 405 (I-405) BRT project, and will support planned and future Sound Transit BRT service. The BBN facility will be located on a 12.5-acre site to provide maintenance, service, and storage for up to 120 buses. These buses include the fleet that will operate on the proposed I-405 and SR 522/NE 145th BRT lines, as well as Sound Transit Express buses from existing lines of bus service.

A State Environmental Policy Act (SEPA) checklist was completed, and a Determination of Non-Significance (DNS) was issued by Sound Transit on August 10, 2020, for the BBN project. Sound Transit issued a SEPA Addendum to the DNS on August 5, 2021, to share the additional analysis with interested parties related to traffic and roadway conditions. These documents addressed the following:

- Bus maintenance and operations building
- Bus and other vehicle parking structure
- Security building
- Bus wash building
- Bus paint booth
- Fueling facility/support systems building with fuel storage
- Miscellaneous elements including landscaping, stormwater infrastructure, and street and sidewalk improvements

As the BBN project has progressed further into design, additional refinements have emerged. Although the general programming as described in the SEPA checklist has remained the same, the following refinements are evaluated in this memorandum and the construction footprint for these refinements is shown on Figure 1:

- On-parcel design refinements to accommodate through-block connections
- Off-parcel new design for adjacent roadway improvements:
 - Revised curb heights and adjacent sidewalk
 - Roadway resurfacing and curb raise
 - Driveway and intersection tie-ins
- Temporary construction easements (TCEs) for:
 - Stormwater utility connections
 - Curb construction

The purpose of this memorandum is to evaluate the design refinements and to determine whether they result in cultural resources impacts not considered in the 2020 SEPA determination.

Background

In support of the 2020 SEPA Checklist (Sound Transit 2020), a cultural resources survey (Lockwood and Schneider 2020), including a pedestrian surface survey, and a subsurface investigation were conducted to evaluate the potential for impact to historical and archaeological resources within the original Area of Impacts (AI). No precontact or historic-period archaeological remains were identified during the pedestrian or subsurface survey. The original AI included the proposed BBN project site plus the extent of the immediately adjacent parcels, including part of 20th Avenue SE. The proposed update to the original AI is to include the area for all of the 20th Avenue SE improvements with a 50-foot buffer around the disturbance area, including TCEs (Figure 2).

Records Search

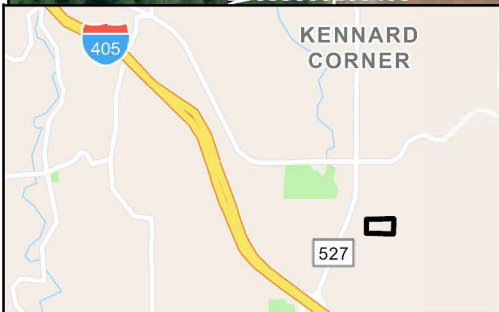
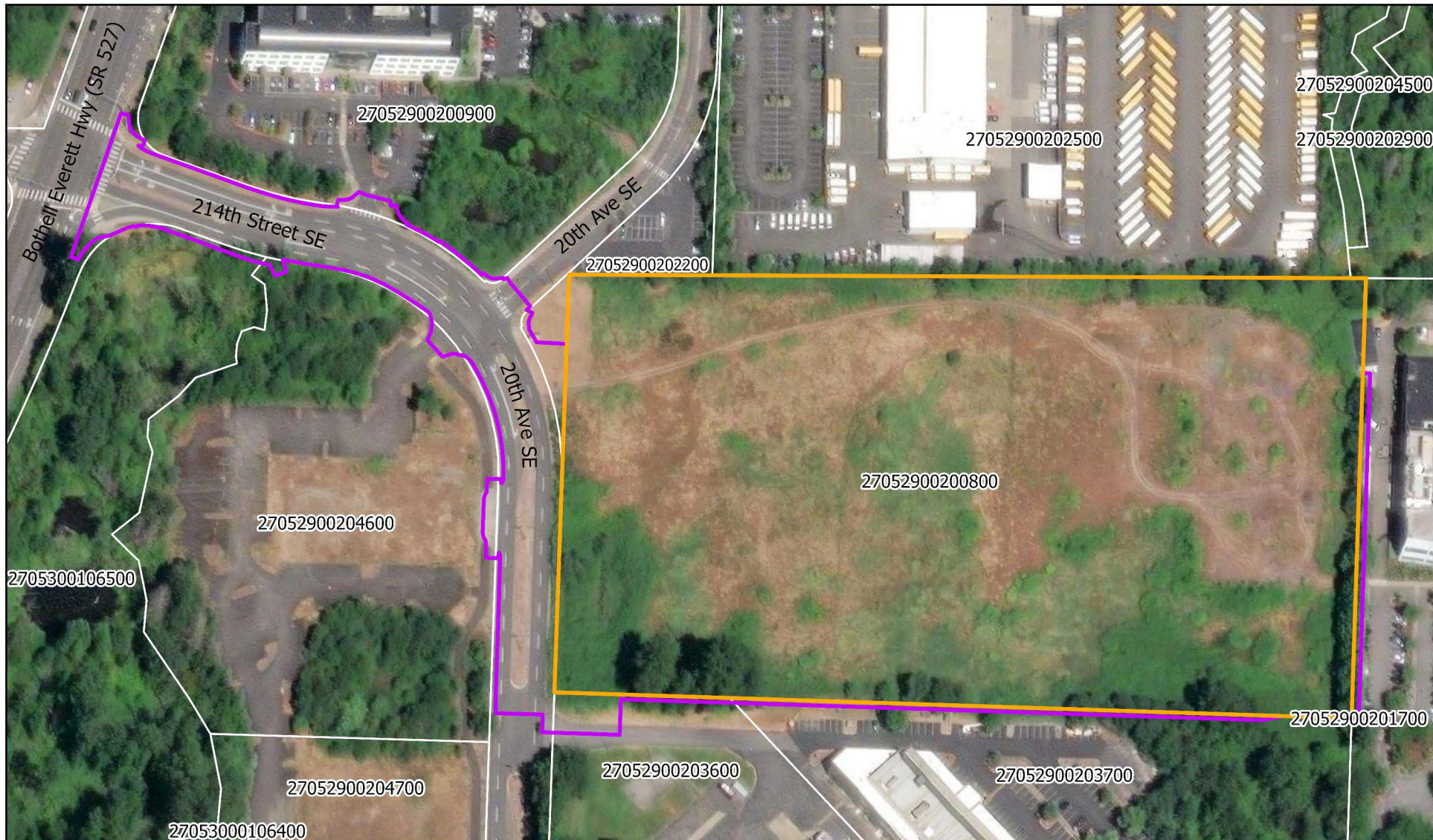
On January 18, 2023, Matthew Sterner, the Jacobs Archaeologist, completed a review of the Washington Information System for Architectural and Archeological Records Data (WISAARD) database for newly documented archaeological resources since 2020. The records review was completed for a 0.25-mile radius around the revised project location. No new cultural resources surveys or archaeological sites have been identified since the 2020 cultural resources report. Likewise, no new built environment resources have been recorded since the 2020 survey.

Construction Refinements

Proposed refinements to the project scope are almost exclusively limited to roadway construction, improvements, or paved linkages between road surfaces to facilitate bus traffic. Only refinements outside the original APE are discussed in this memorandum.

The design refinements are the 20th Avenue SE/214th Street SE (20th Avenue SE) roadway improvements necessary to support bus traffic associated with the Project. The curb and adjacent sidewalk design revises existing curb lines, raising them by 4 inches. Additionally, the existing median would be improved, extending it approximately 250 feet and to include left turn access into the site from 20th Avenue SE and a planter strip. The refinements would also include roadway resurfacing, as well as intersection and driveway tie-ins along 20th Avenue SE. The roadway resurfacing would raise the profile by 4 inches. The tie-ins would provide three driveway access points for vehicle and bus access to the site and tie the resurfaced road into the existing driveways and intersections along 20th Avenue SE. Grind and taper methods will be used to match current grades. Other footprint refinements include the need for TCEs for utility connections (e.g., stormwater electrical vaults, site communications) and to construct elements of the project.

New project elements will all occur within areas that have been previously disturbed by road construction or utility installation. The likelihood of encountering previously undisturbed or native soils is extremely low. In the event archaeological materials are identified during any stage of construction, procedures and protocols established in the Inadvertent Discovery Plan will be followed. The Inadvertent Discovery Plan will be developed before project construction begins.



- Parcels
- Existing Project Footprint
- Road Improvements and Temporary Construction Easement

Data Sources: City of Bothell, King County GIS
Background: King County Aerial, 2019

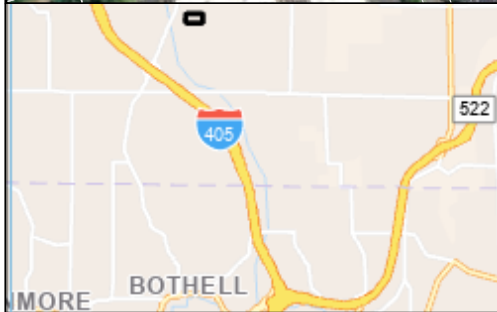
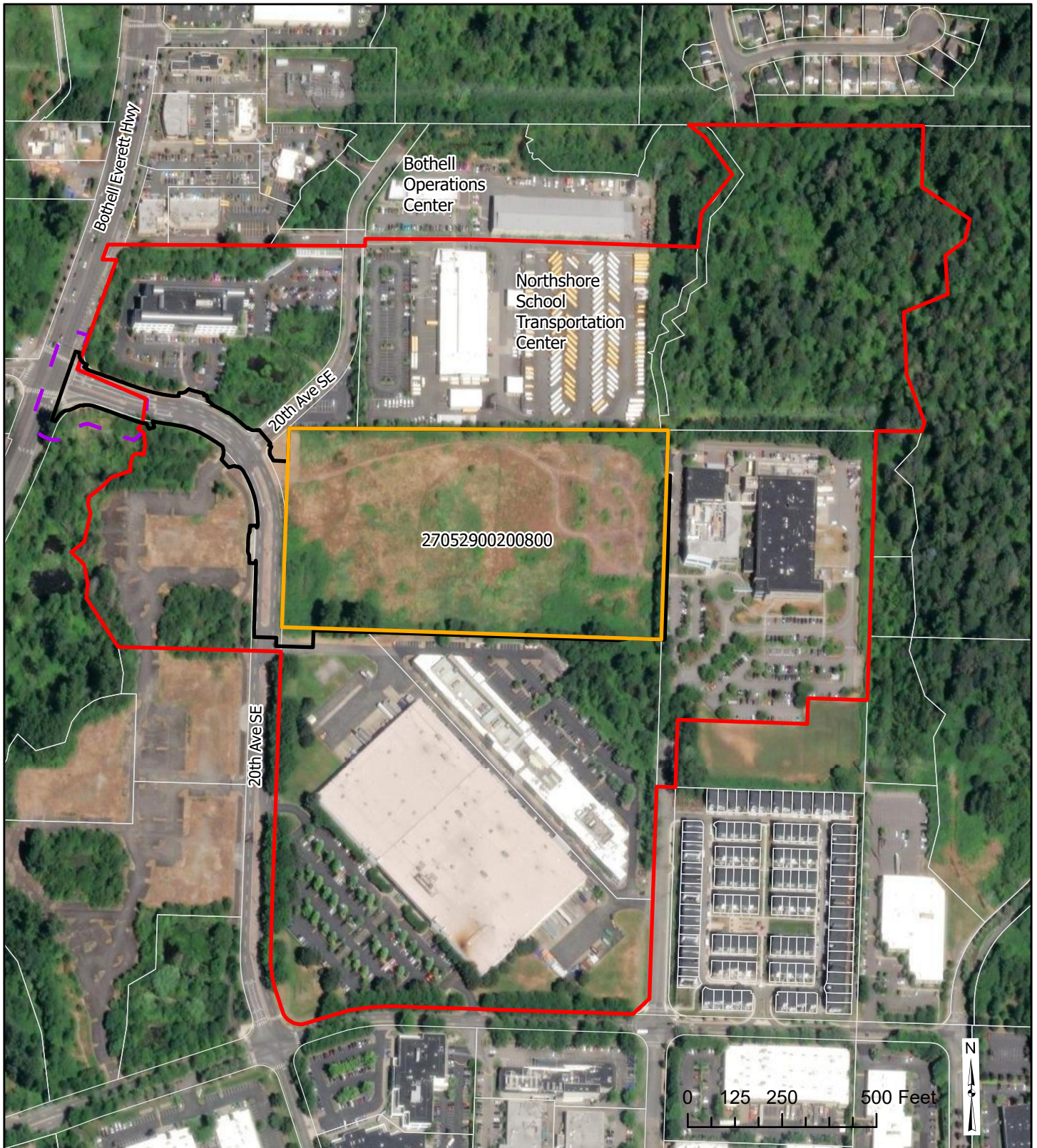


Figure 1. Project Area Map

Bus Base North

4/24/2023





- Existing Project Footprint
- Area of Impacts (AI)
- Parcels
- New Project Footprint
- Modified Area of Impacts

**Figure 2. Cultural Resources
Area of Impacts**

Bus Base North

Data Sources: City of Bothell, King County GIS
Background: King County Aerial, 2019

3/15/2023



Conclusions

The proposed design and footprint refinements are not anticipated to result in impacts to archaeological resources. Most of the roadway refinements would be located within the original AI (Figure 2). The portion of the roadway refinements not in the original AI is part of the existing roadway system, is immediately adjacent to the original AI, and conditions in any new areas are expected to be similar to conditions within the original AI. No impacts to archaeological materials are expected given the evidence of widespread fill and disturbance in the AI. There are no historic register-eligible buildings or structures within the original or revised AI; therefore, the project would not have impacts to historic properties.

No additional cultural resources evaluation is recommended.

References

Lockwood, Chris, and Chanda R. Schneider. 2020. *Bus Base North Historic and Archaeological Resources Report*. Report prepared for Sound Transit by ESA, Seattle.

Sound Transit. 2020. Bus Base North SEPA Environmental Checklist. Sound Transit, Seattle.