

Downtown Redmond Link Extension

Appendix D Historic and Archaeological Resources Technical Report Addendum

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Prepared for



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- D.2 Consultation Summary
- D.3 Archaeological Site Forms
- D.4 Site 2641-1 Artifact Catalog
- D.5 Radiocarbon Report

ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
amsl	above mean sea level
Ballard Locks	Hiram M. Chittenden Locks
Beta	Beta Analytic Inc.
B.P.	before present
CCS	cryptocrystalline silicate
CFR	Code of Federal Regulations
DAHP	Department of Archaeology and Historic Preservation
cmbs	centimeters below ground surface
cmbd	centimeters below datum
EU	excavation unit
FEMA	Federal Emergency Management Agency
Final EIS	East Link Project Final Environmental Impact Statement
FTA	Federal Transit Administration
GPS	global positioning system
HCl	hydrogen chloride
HPI	Historic Property Inventory
HRA	Historical Research Associates, Inc.
LiDAR	light detection and ranging
NAD83	North American Datum of 1983
NaOH	sodium hydroxide
NHPA	National Historic Preservation Act
NPS	National Park Service
NRHP	National Register of Historic Places
ROD	Record of Decision
Sound Transit	Central Puget Sound Regional Transit Authority
SR	State Route
WHR	Washington Heritage Register
WISAARD	Washington Information System for Architectural and Archaeological Records Data
WSDOT	Washington State Department of Transportation

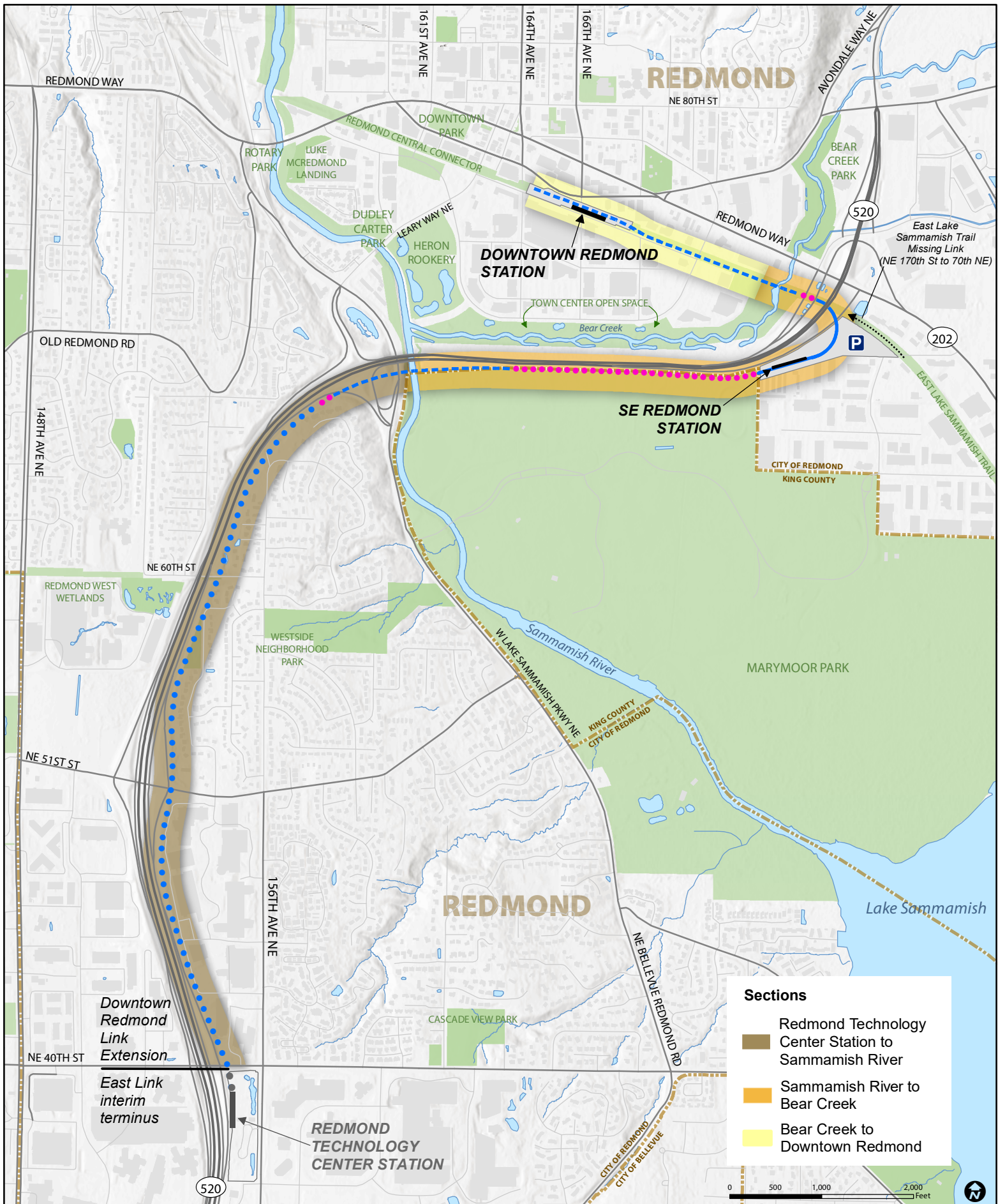
1 INTRODUCTION

The Downtown Redmond Link Extension Project (project) will add 3.4 miles of light rail and two new light rail stations from the East Link interim terminus at the Redmond Technology Center Station (formerly called the Overlake Transit Center Station) to downtown Redmond (Figure 1-1).

This light rail corridor was evaluated as Segment E of the 2011 East Link Project Final Environmental Impact Statement (Final EIS). The Final EIS and Record of Decision (ROD) identified the Marymoor Alternative E2 as the Preferred Alternative in Segment E. The Sound Transit Board selected the Marymoor Alternative E2 (referred to hereafter as 2011 Project) to be built as part of the full length East Link Project, although at the time Segment E was not funded for construction and operation. Since 2011, project plans as well as project area conditions have changed. As a result, Sound Transit is updating the environmental review to address these changes.

The Federal Transit Administration (FTA) is the lead federal agency for the Downtown Redmond Link Extension Project, and as such, the project is subject to Section 106 of the National Historic Preservation Act (NHPA) (36 Code of Federal Regulations [CFR] 800, as amended). In 2010, Historical Research Associates, Inc. (HRA) conducted background research and an archaeological and architectural survey for all proposed East Link alternatives. These findings were documented in the Historic and Archaeological Resources Technical Report that was Appendix H4 of the Final EIS (HRA and CH2M HILL 2011). This report documents additional cultural resource investigations performed for the Downtown Redmond Link Extension and is an addendum to Appendix H4 of the Final EIS.

Consistent with other Central Puget Sound Regional Transit Authority (Sound Transit) light rail projects, the Area of Potential Effects (APE) is proposed to include all areas within 200 feet from the center line of the alignment and from the exteriors of planned structures such as the stations. Project staging and materials storage locations are expected to occur within the APE. The 200-foot APE for the light rail alignment within the Downtown Redmond Link Extension project corridor was previously surveyed and documented as part of Segment E in Appendix H4 of the Final EIS (HRA and CH2M HILL 2011) and is referred to as the 2010 APE in this report. The project location, topography, and revised APE with the Proposed Design Refinements is shown in Figure 1-2. The revised APE with the Proposed Design Refinements is referred to as the 2017 APE or expanded APE in this report. The 2017 APE encompasses the 2010 APE. In addition, as part of the preliminary design for the Downtown Redmond Link Extension, the 2017 APE has been expanded in places to include station facilities and roadway improvements for the SE Redmond Station, modification of the State Route (SR) 520/SR 202 interchange, and the shift in the Downtown Redmond Station location (Figure 1-3). There are no changes to the 2017 APE between the Redmond Technology Center Station and Marymoor Park in comparison to the 2010 APE.



- Sections**
- Redmond Technology Center Station to Sammamish River
 - Sammamish River to Bear Creek
 - Bear Creek to Downtown Redmond

- At-Grade
- Station Platform
- Elevated
- Station Area
- Retained Fill
- Parks / Open Space
- Retained Cut
- City Limits
- P Park & Ride

Source: USGS, City of Redmond, King County, Parametrix
Figure 1-1
Alignment with Proposed Design Refinements
Downtown Redmond Link Extension

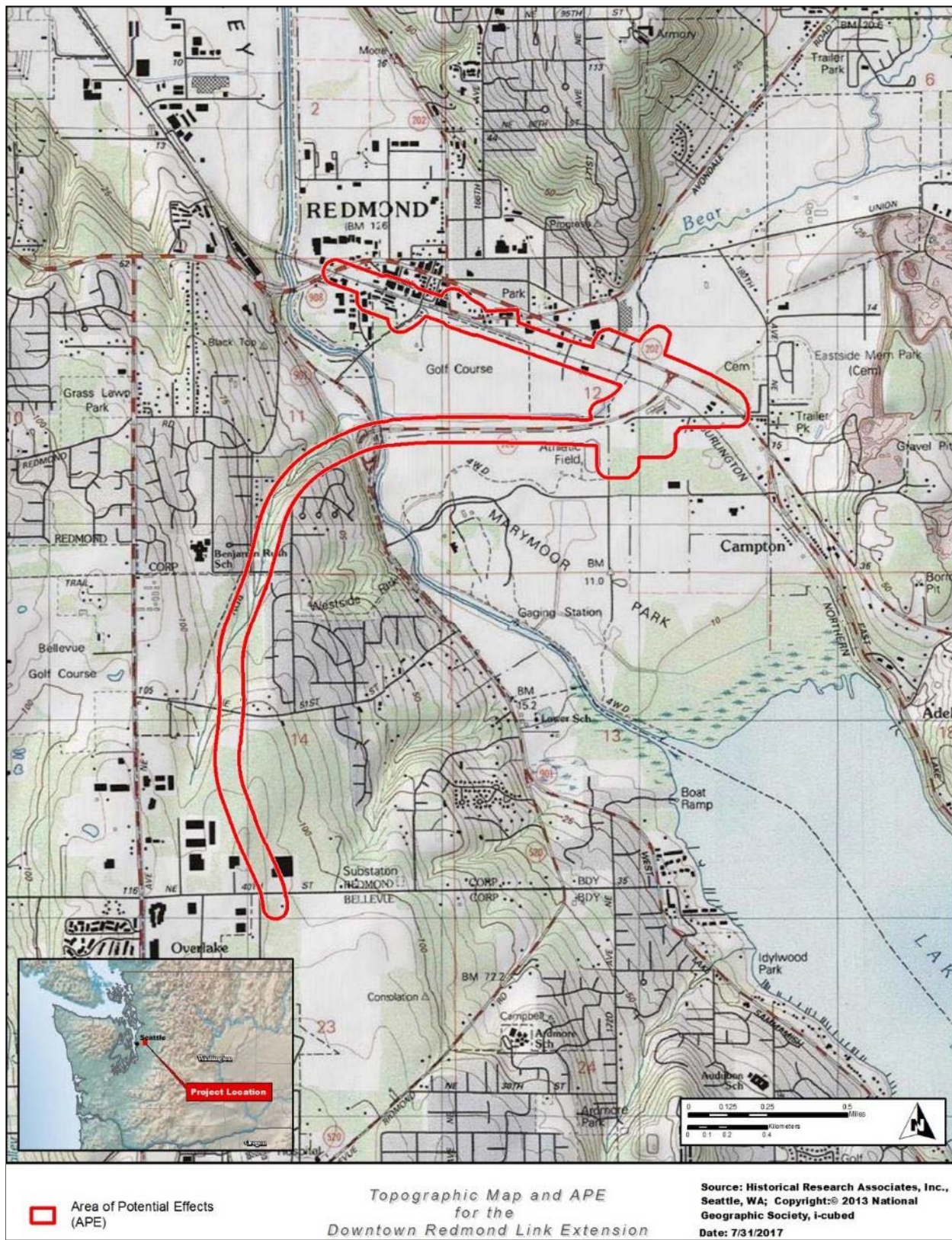


Figure 1-2. Topographic Map of the Downtown Redmond Link Extension

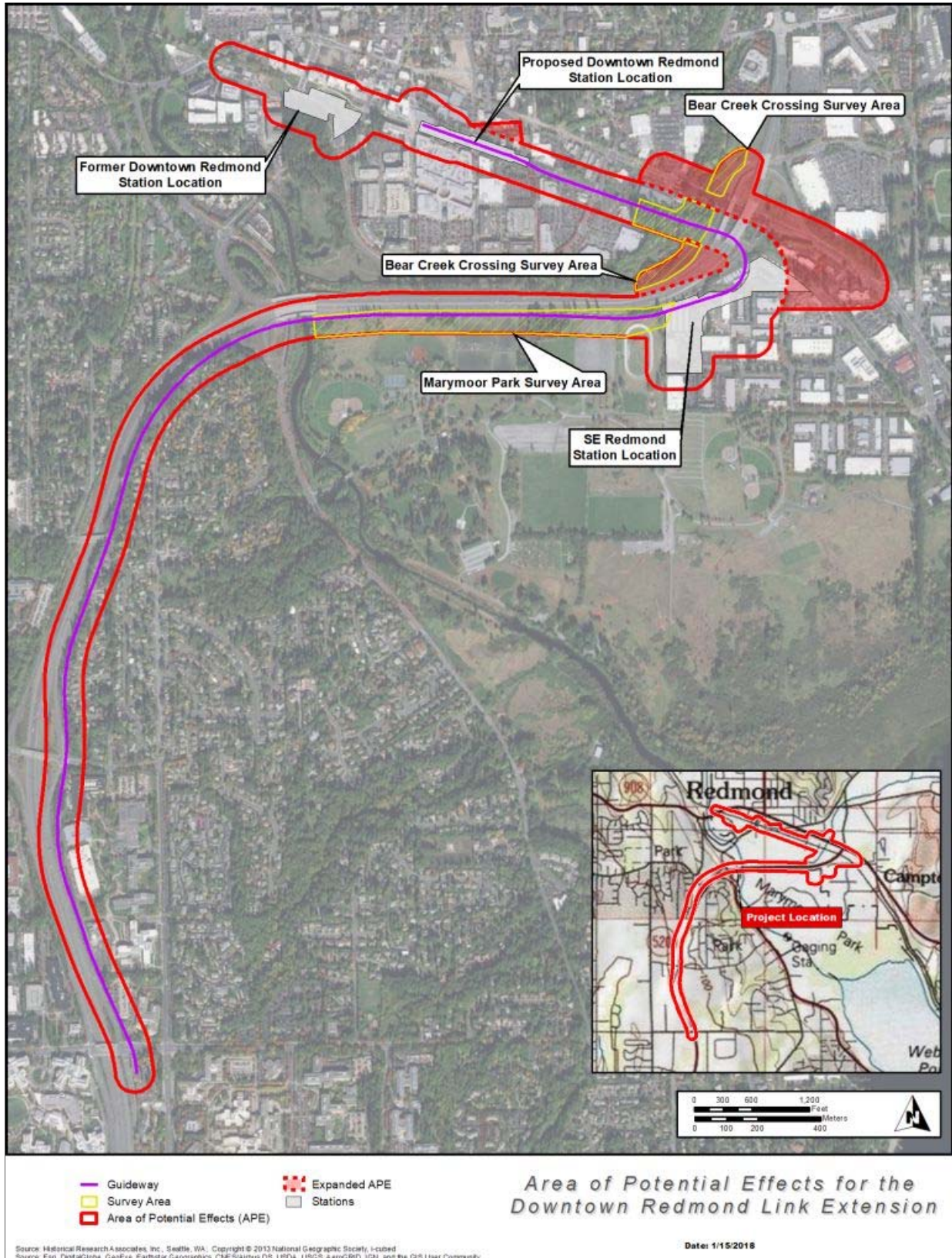


Figure 1-3. Downtown Redmond Link Extension 2017 APE

To update previously prepared technical reports, Sound Transit tasked HRA with expanding its archaeological and architectural survey to cover the expanded APE locations for the Downtown Redmond Link Extension. In addition, archaeological investigations were conducted in previously surveyed portions of the 2017 APE (Marymoor Park Survey Area and Bear Creek Crossing Survey Area) in order to implement Stage 2 (see Section 3.2) Survey methods that were described in the original survey plan for the East Link Project (Thompson and Gilpin 2010), which also are presented below.

For architectural investigations, HRA performed the following three tasks:

- Task 1 – HRA conducted a records search to identify any previously unrecorded historic-period architectural resources within the expanded APE locations.
- Task 2 – HRA re-evaluated three resources within the Downtown Redmond Link Extension’s 2017 APE. More specifically, HRA revisited two National Register of Historic Places (NRHP)-eligible resources near the Downtown Redmond Station to assess current conditions and possible project effects. Within the 2017 APE near the SE Redmond Station, HRA evaluated a single building, previously determined not eligible, to update its Historic Property Inventory (HPI) form.
- Task 3 – HRA assessed a bridge within the 2017 APE at the Bear Creek Crossing Survey Area, which was previously recorded as part of an archaeological resource (45KI451), and prepared an HPI for the structure.

Archaeological investigations included implementation of the Stage 2 archaeological survey at two previously surveyed locations (Marymoor Park Survey Area and Bear Creek Crossing Survey Area) and in portions of the expanded APE (Bear Creek Crossing Survey Area) following the procedures outlined in the Archaeological Survey Strategy of Preferred Alternative for Final EIS and Project Design (Thompson and Gilpin 2010), which was included as an appendix to Appendix H4 of the Final EIS (HRA and CH2M HILL 2011). The scope and procedures recommended for the Stage 2 survey were outlined in a survey and inadvertent discovery plan for the project (Hicks 2017).

Formal consultation for Section 106 of the NHPA occurred with agencies and tribes for the East Link Project’s environmental review from 2006 to 2011. NHPA consultation specific to the environmental review of the Downtown Redmond Link Extension began in 2017. A summary of the consultation efforts is presented in Attachment D.2.

1.1 Proposed Design Refinements

The Downtown Redmond Link Extension starts at the East Link interim terminus near NE 40th Street, just past the Redmond Technology Center Station (formerly called Overlake Transit Center Station), and terminates just east of 164th Avenue NE. The Downtown Redmond Link Extension corridor is described in three geographic sections: Redmond Technology Center Station to Sammamish River, Sammamish River to Bear Creek, and Bear Creek to Downtown Redmond. The alignment is shown in Figure 1-1 and sections are described below.

1.1.1 Redmond Technology Center Station to Sammamish River

In the section between the Redmond Technology Center Station and the Sammamish River, the light rail route runs parallel to the east side of SR 520. The alignment would generally be at-grade with SR 520 and use retained-cut sections to cut into the hillside and pass under existing overpasses at NE 40th Street, NE 51st Street, and NE 60th Street. The retained-cut sections would range from ground level up to approximately 16 feet where the alignment passes under NE 40th Street, NE 51st Street, and NE 60th Streets. As the alignment follows SR 520 and curves east, it transitions to an elevated structure crossing over the West Lake Sammamish Parkway NE interchange and the Sammamish River.

The alignment with the Proposed Design Refinements is similar to the 2011 Project, but has been modified in several locations to minimize impacts on adjacent roadways and to accommodate the Washington State Department of Transportation (WSDOT) planned improvements (WSDOT 2013). Between NE 40th Street and NE 51st Street, the alignment has been shifted up to 20 feet away from SR 520 to maximize available WSDOT right-of-way and limit impacts on the adjacent property. The refined alignment has also been shifted up to 25 feet away from SR 520 south of NE 60th Street and up to 30 feet near the West Lake Sammamish Parkway NE eastbound off-ramp.

As with the Final EIS, ground disturbance for utility relocations would generally be approximately 1 to 6 feet below the existing ground surface; however, at limited specific locations sewer line relocation would be approximately 7 to 11 feet below the existing ground surface. The specific locations for relocating utilities would be determined during final design.

1.1.2 Sammamish River to Bear Creek

Between the Sammamish River and the SE Redmond Station, the Proposed Design Refinements are similar to the 2011 Project. The elevated guideway would be about 50 to 60 feet above the Sammamish River with the Proposed Design Refinements, which is approximately 15 to 20 feet lower than anticipated for the 2011 Project. The elevated guideway for the Proposed Design Refinements would match the height of the SR 520 bridge and would not have any columns within the ordinary high water mark of the river. The Proposed Design Refinements would transition from elevated to a retained-fill section as it crosses Marymoor Park, whereas the 2011 Project would transition from elevated to at-grade across the park. In the Proposed Design Refinements, the retained-fill section would be between 5 and 14 feet higher than the current ground level and would provide grade separation from Marymoor Park facilities. Similar to the 2011 Project, the Proposed Design Refinements alignment would then transition to ground level as it enters the SE Redmond Station. The elevated section of the alignment would utilize columns that penetrate deeply into the ground in the western portion of Marymoor Park, after which construction impacts would not extend deeper than approximately 4 feet below the current ground surface along the eastern portion of Marymoor Park to the SE Redmond Station area.

The major changes in this section are related to the City of Redmond's plans allowing the Marymoor Subarea to develop around the SE Redmond Station as a transit-oriented neighborhood with mixed-use developments, including a revised street network and new trail connections. Station facilities for both the 2011 Project and the Proposed Design Refinements would include a 1,400-stall parking garage as well as circulation for transit, passenger pick-up and drop-off, and connections to trails in the area. The Proposed Design Refinements would rebuild NE 70th Street, currently a dead-end street, to serve the station and surrounding land uses and to connect to the SE Redmond street system consistent with City of Redmond plans. Pre-construction shovel probes will be conducted at the SE Redmond Station once the land is accessible for surveying. If the survey finds any artifacts, construction monitoring may be required. If monitoring is required, Sound Transit will prepare a construction monitoring and inadvertent discovery

plan to address the potential for discovery of archaeological resources during project construction. Sound Transit and FTA will submit the plan to affected tribes and DAHP for review.

From the SE Redmond Station, the alignment is similar to the 2011 Project, turning to the northwest, crossing underneath SR 520, and entering the former BNSF rail corridor. The Proposed Design Refinements would cross under SR 520 at-grade and require reconstruction of the SR 520 eastbound off-ramp and westbound on-ramp. The Proposed Design Refinements would slightly raise SR 202 and a short section of NE 76th Street to align with the reconstructed westbound on-ramp and its intersection, which would be modified. The Proposed Design Refinements and the 2011 Project alignment would both rise to cross on a new bridge elevated about 3 to 6 feet over Bear Creek. The Proposed Design Refinements would also accommodate an at-grade trail connection between the East Lake Sammamish Trail and Redmond Central Connector Trail with a bridge over Bear Creek, which may be constructed by Sound Transit as part of the project with funding provided by King County, or funded and constructed by King County at a later time. This trail connection is a missing segment of King County's East Lake Sammamish Trail, and the Proposed Design Refinements' raising of the SR 520 ramps makes this at-grade connection possible.

The Bear Creek channel and its floodplain would be regraded and broadened to remove some past fill and constrictions in the floodplain from the existing railroad bridge, which is no longer in use and would be removed. These improvements to the Bear Creek channel would connect with restoration efforts completed downstream since 2011. The improvements were not contemplated and therefore not analyzed for the 2011 Project.

To accommodate stormwater discharges, two new outfalls would be needed to convey stormwater from the guideway to the Sammamish River. One outfall would be located on each side of the river. Because of the early stage of design during preparation of the Final EIS, these outfalls were not previously anticipated; however, one or more outfalls would have been needed to discharge stormwater for the 2011 Project. In the SE Redmond Station vicinity, several new stormwater facilities would infiltrate runoff from the guideway. Some of the facilities may be open ponds, while others may be underground infiltration galleries (a type of drainage system) or other suitable methods.

1.1.3 Bear Creek to Downtown Redmond

In the section between Bear Creek and downtown Redmond, the Proposed Design Refinements have the same general alignment but with some different features than the 2011 Project. After crossing over Bear Creek, the refined alignment would continue on an elevated structure, whereas the 2011 Project would return to grade. The refined alignment in downtown Redmond would shift slightly south of the 2011 Project alignment, and it would be shorter. The elevated Downtown Redmond Station and tail tracks would shift approximately 1,600 feet east compared to the 2011 Project. The Downtown Redmond Station would span 166th Avenue NE and remain in the existing rail corridor easement on the north side of NE 76th Street. Approximately 460 feet of tail tracks for train layover and turnback operations would continue west of the station, terminating just east of 164th Avenue NE. The ground disturbance along the elevated alignment would be focused at the columns locations, which would penetrate deeply into the ground.

2 ENVIRONMENTAL AND CULTURAL CONTEXT

A detailed discussion of the environmental setting and the cultural context of the full length East Link Project is presented in Appendix H4 of the Final EIS (HRA and CH2M HILL 2011). For that Historic and Archaeological Resources Technical Report, research was conducted to determine the soil types, geomorphologic setting, and age of landforms involved as well as the extent of modern disturbance. In addition, the precontact period, ethnography, and history of the project vicinity was researched to establish a context from which to evaluate the significance of archaeological and historic resources. The environmental and cultural context presented by HRA and CH2M HILL (2011) established the potential for encountering buried precontact and historic-period archaeological sites. This background and contextual information is not repeated herein.

Since the production of the previous cultural resource report, Appendix H4 of the Final EIS, additional work at the Bear Creek Site (45KI839) has provided valuable information regarding the precontact period of the Redmond area (Kopperl 2016). Extensive excavation and analysis has revealed a peat stratum that dates to between 8,000 and 10,000 years old and a buried cultural stratum that dates to between 10,000 and 12,000 years old. This Early Holocene stratum contained evidence of salmon harvesting in the Lake Sammamish basin as well as large mammal hunting based on protein residue analysis. Lithic artifacts primarily consist of fine-grained volcanic material, metasediment, and, to a lesser extent, cryptocrystalline silicate (CCS). Lithic artifacts encompass all stages of biface reduction. Of particular note, at least one (and possibly three) tools are broad-necked, lanceolate-shaped stemmed points that are comparable to point types associated with the Western Stemmed Complex, which has been shown to date to 13,000 years ago in the Pacific Northwest and Great Basin (e.g., Davis et al. 2012; Jenkins et al. 2014).

[REDACTED]

In addition to the excavation and analyses at the Bear Creek Site, broad stratigraphic analyses were conducted in the site vicinity, including Marymoor Park. These analyses indicate that the stratigraphy near the paleo shoreline of Lake Sammamish is consistent across the area; sediments such as the peat deposits and underlying buried soil are present throughout, and have been mapped along the northern margin of Marymoor Park, near the SE Redmond Station area, and near the Bear Creek Crossing (Kopperl 2016). Awareness that stratigraphy similar to that found at the Bear Creek Site may extend into the 2017 APE in Marymoor Park, in part led to the additional survey efforts there as described in Section 3.2.

3 METHODS

3.1 Architectural Investigations

3.1.1 Records Search

HRA conducted a records search to identify any historic-period resources within the expanded APE, using the expected construction year of 2021 as a baseline year for assessment (i.e., resources built in or before 1971). HRA's architectural historian, Chrisanne Beckner, performed research through the Washington Department of Archaeology and Historic Preservation's (DAHP) Washington Information System for Architectural and Archaeological Records Data (WISAARD) database to identify which of those resources were previously recorded with recent eligibility determinations on file.¹

3.1.2 Reconnaissance-Level Survey

HRA conducted field surveys of three previously recorded historic-period architectural resources within the Downtown Redmond Station and SE Redmond Station areas. Survey methods followed protocols described in Appendix H4 of the Final EIS (HRA and CH2M HILL 2011).

At the request of Sound Transit, HRA conducted a reconnaissance-level survey of two NRHP-eligible resources adjacent to the Downtown Redmond Station 2017 APE to determine if their HPIs needed to be updated due to changed conditions. HRA photographed these eligible resources and took field notes to document details related to design, materials, workmanship, evidence of additions and alterations, and style. These data were compared to existing data for the resources. HRA also reassessed NRHP-eligible resources according to the criteria for eligibility to local, state, and national registers of historic places, and considered whether the proposed project activities within the 2017 APE locations would affect these resources.

HRA revisited a bridge within the Bear Creek Crossing Survey Area that was noted by the archaeological field crew. [REDACTED] Beckner prepared an HPI form for the bridge and evaluated it as an architectural structure at an intensive level. Updated HPI forms are included in Attachment D.1.

3.1.3 Evaluation Criteria

3.1.3.1 National Register of Historic Places

The criteria for listing a property in the NRHP require that, in addition to a building being over 50 years of age, it must meet at least one of the following criteria and possess integrity, as outlined in 36 CFR 60.4 (National Park Service [NPS] 1997).

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history; or
- B. Property is associated with the lives of persons significant in our past; or

¹ According to DAHP guidelines, determinations of eligibility and HPIs need to be updated when new information about a property arises, or if the data are more than 10 years old.

- C. Property embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction; or
- D. Property has yielded, or is likely to yield, information important in prehistory or history.

“Integrity is the ability of a property to convey its significance” (NPS 1997:44–45) and is related to how a property’s physical features are tied to and convey its significance. It is based on “why, where and when a property is important.” In order to retain integrity, a property must retain most of the following seven aspects of integrity:

1. Location: the place where the property was constructed or the place where the historic event occurred.
2. Design: the combination of elements that create the form, plan, space, structure, and style of a property.
3. Setting: the physical environment of a historic property.
4. Materials: the physical elements that were combined or deposited during a particular period of time, and in a particular pattern or configuration, to form a historic property.
5. Workmanship: the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
6. Feeling: a property’s expression of the aesthetic or historic sense of a particular period of time.
7. Association: the direct link between an important historic event or person and a historic property.

3.1.3.2 Washington Heritage Register

The criteria for listing properties in the Washington Heritage Register (WHR) include:

- A building, site, structure, or object must be at least 50 years old. If newer, the resource should have documented exceptional significance.
- The resource should have a high to medium level of integrity, i.e., it should retain important character defining features from its historic period of construction.
- The resource should have documented historical significance at the local, state or federal level.
- The Advisory Council on Historic Preservation (ACHP) review and listing requires the consent of the owner (DAHP 2017).

3.1.3.3 Redmond Heritage Resource Register/King County Heritage Register

The City of Redmond manages the Redmond Heritage Resource Register, which includes properties within Redmond that the King County Landmarks Commission has deemed King County Landmarks. To be eligible for listing as a landmark in the King County Heritage Register and the Redmond Heritage Resource Register, a resource must be 45 years old or older, retain integrity of location, design, setting, materials, workmanship, feeling, and association, and meet one of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of national, state, or local history; or
2. Is associated with the lives of persons significant in national, state, or local history; or

3. Embodies the distinctive characteristics of a type, period, style, or method of design or construction, or that represents a significant and distinguishable entity whose components may lack individual distinction; or
4. Has yielded or may be likely to yield, information important to prehistory or history;
5. Is an outstanding work of a designer or builder who has made a substantial contribution to the art (King County 2018a).

3.1.4 Effects Assessment

As established in the Final EIS, analysis of potential adverse effects follows a standard approach. The ACHP's regulations implementing Section 106 of the NHPA (36 CFR 800, as amended) creates a process by which federally assisted undertakings are reviewed for their potential effects on historic properties.

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative (36 CFR 800).

Examples of adverse effects include:

- Physical destruction of or damage to all or part of the property
- Alteration of a property, including restoration that is not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR 68)
- Removal of the property from its historic location
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features; neglect of a property which causes its deterioration

3.2 Archaeological Investigations

Archaeological investigations were focused on the Marymoor Park Survey Area and the Bear Creek Crossing Survey Area. Previous investigations for the project outlined Stage 1 and Stage 2 archaeological survey approaches. The Stage 1 survey focused on areas (1) of high probability for archaeological resources, (2) primarily in public ownership, and (3) free of pavement or otherwise readily accessible. Stage 1 surveys previously have been conducted at the Marymoor Park Survey Area and in the portion of the Bear Creek Crossing Survey Area that was within the 2010 APE defined in the Final EIS (Hicks 2017; HRA and CH2M HILL 2011). However, these investigations either did not reach the depth of potential cultural deposits (based on information from the Bear Creek Site [Kopperl 2016]) or provided only a small sample of sediment from the deposit of interest.

The Stage 2 survey, as defined in Thompson and Gilpin (2010), was originally designed to address areas of high probability for archaeological resources where hardened surfaces or deeper fill prevented subsurface testing by hand and surfaces or where fill would need to be removed with mechanical

equipment. Due to the potential great depth of the cultural deposits in the Marymoor Park and Bear Creek Crossing Survey Areas, HRA developed a strategy for Stage 2 archaeological investigations in coordination with Sound Transit and King County to excavate augers mechanically in the two survey areas (Hicks 2017). After this strategy was developed, environmental concerns, including a wetland and certain animal habitats within the 2017 APE, were raised. The strategy was altered slightly to include a combination of mechanical and hand augers with deep extensions in order to reach the appropriate depths.

Mechanical and hand augers were employed during the investigations, which were focused on areas where the most ground disturbances would take place (i.e., the center of the light rail alignment). Augers were also placed in the locations where geotechnical bores were proposed within the 2017 APE. All excavated sediment was screened through ¼-inch hardware mesh, and holes were backfilled after the unit was complete.

The sediments observed in each auger were described on the auger form and in the field supervisor's field notes, including evidence of subsurface disturbances. Special attention was paid to sediment stratigraphy in order to assess deposits for their potential to contain archaeological materials, especially with reference to the nearby Bear Creek Site. Sediment characteristics were recorded and individual strata described separately. The depth and thickness of each stratum was noted in order to recreate vertical stratigraphic sequences. Sediment characteristics were described using standard geologic and soils terms, with special attention to sediment texture, color, bedding, and inclusions. Strata were separated into individual depositional units (strata) based on attributes that differentiated them from units above and below. Following the survey plan (Hicks 2017), excavation of auger probes was halted at the depth of glacial outwash. One artifact was found during the investigations, which was given the temporary designation of 2646-1 and documented on the HRA auger form and by digital photography. The artifact was placed in a labeled bag and returned to the auger hole. An additional survey plan was developed in coordination with Sound Transit, King County, FTA, and DAHP in response to identification of the 2646-1 artifact (HRA 2017). The additional survey plan included a strategy for removing culturally sterile overburden in the location of Auger 1 where 2646-1 was found in order to target sediments at the depth of the artifact and explore the cultural deposits in this area. The methodology for this additional survey work is outlined in Section 3.2.1.1.

3.2.1 Marymoor Park Survey Area

A pedestrian survey and shovel probe excavations were previously conducted within the Marymoor Park Survey Area as part of the Stage 1 survey (Hicks 2017; HRA and CH2M HILL 2011). HRA employed two methods of investigation in the Marymoor Park Survey Area for the Stage 2 survey: systematic deep auger probing and overburden removal followed by controlled archaeological unit excavations.

3.2.1.1 Systematic Deep Auger Probing

A 30-centimeter-diameter mechanical auger was used to excavate every 10 meters along the north boundary of Marymoor Park, from near the western margin of the park to a wetland near the center of the park. The mechanical auger was advanced approximately 20 centimeters at a time with the sediments screened at each interval. A 20-centimeter-diameter hand auger was used to excavate every 10 meters along the north boundary of Marymoor Park, from the western margin of the wetland to the eastern boundary of the park. Additionally, because the mechanical augers at the far western end of the survey area did not reach glacial outwash, the 20-centimeter-diameter hand auger was used to extend these holes.

3.2.1.2 Overburden Removal and Excavation Units

Field Methods

The additional survey was conducted in the vicinity of Auger 1 where artifact 2646-1 was identified. A site datum was established at the location of geotechnical bore G018 where a piezometer was established. The datum was at the top of the piezometer, which is situated at an elevation of 38.41 feet above mean sea level (amsl). Depths of the trenches, excavation units, and stratigraphy were measured to this datum. Three trenches were excavated with a backhoe. Trench 1 was placed over Auger 1 (after the original artifact was retrieved); Trench 2 was placed approximately 15 feet west of Trench 1; and Trench 3 was placed approximately 15 feet east of Trench 1.

Data were collected following standardized methodology. The field director took general notes about the site in a field notebook. Notes were made regarding basic field conditions, the crew members on site, a description of the extent of the area investigated, the number and location of excavations, a description of the landforms and landform formation processes, basic plant identification, soil descriptions, and disturbances. The field director also produced a hand-drawn sketch map that depicted prominent natural features, trenches, a scale, a north arrow, the date, and locations of excavations.

The field crew maintained a standardized photographic log to include the camera number, site number, photograph description, direction of view, photographer, and date. The location of the trenches, excavation units, and site datum were recorded with a Trimble GeoExplorer 6000 GeoXH or Geo7x global positioning system (GPS) unit equipped with ArcPad 10 software. All GPS data were collected using North American Datum of 1983 (NAD83). All artifacts collected in the course of archaeological investigations were provenienced in the field. Provenience was maintained throughout the process through the use of a bag catalog, which in turn generated an inventory of materials recovered.

Excavation of the trenches was monitored by HRA's geoarchaeologist, Michele L. Punke, PhD. Samples of sediment were collected from each stratum identified during the backhoe excavation and screened through ¼-inch mesh to determine if artifacts were present. Each sample was 5 gallons in volume. An 8-foot by 8-foot shoring box was placed in each excavated trench as the backhoe came close to the target depth. Additional sediment was then removed by hand for a closer examination of the stratigraphy and to prepare the base of the trench for unit excavation.

The controlled excavations consisted of 1-meter by 1-meter excavation units (EUs) placed at the base of the trenches. The EUs were excavated in arbitrary 10-centimeter levels and stratigraphically; all soils were screened through ⅛-inch mesh. The units were excavated to culturally sterile sands and two sterile 10-centimeter levels into these sands. EUs were numbered sequentially, and EU forms were maintained that documented the site number, EU number, soil characteristics, and results by level. All artifacts were collected and bagged by level and stratum, as applicable. All EUs were drawn and photographed in profile, and completely excavated EUs were photographed in plan view. The stratigraphy of at least two wall profiles for each unit was photographed, drawn, and described. In addition, the stratigraphic profile of each backhoe-excavated trench was also photographed, drawn, and described.

Soil samples were collected from the EUs for potential laboratory analysis. Samples measuring approximately 0.5 to 1 liter were collected from excavation levels containing archaeological deposits or unique soil characteristics and/or floral or faunal remains. Samples were also taken from selected unit wall profiles for potential laboratory examination of soil characteristics.

Artifact Processing and Inventory

Following fieldwork, the collected artifacts and samples were transported to HRA's laboratory facilities for processing, inventory, and analysis. The information listed on all field bags was first cross referenced to the field bag catalog and field forms. After any inconsistencies were rectified, each bag was assigned a "lot" number reflecting the provenience information, as well as a unique bag catalog number. All artifact and samples bags were cataloged using a Microsoft Access database. A tabular inventory of artifacts and samples is included in Attachment D.4. The database contains a provenience table with fields for the accession number, site number, lot number, artifact provenience, date, collector, and any comments, as well as tables designed for appropriate collection analyses. To limit user error and ensure uniform application of methods, drop-down menus, which allow only certain information to be entered, were used whenever possible.

After the provenience information was entered into the Access database, the artifacts and samples were processed. Lithic artifacts were washed, cleaned with a soft bristle brush, and allowed to dry. Items such as bone were not washed. Each unique artifact or group of unique artifacts was then placed in a clean zip-closure polyethylene bag that is archival quality and measures 4 millimeters in thickness. Identification tags were made from acid-free paper and placed inside each bag. The tags were each formatted according to the Burke Museum Curation Guidelines, identifying the site number, project year, catalog number, object name, material, unit, level, stratum, collected by, and date collected.

Lithic Analysis

Precontact lithic artifacts recovered during the investigations were limited to debitage (debris from manufacturing flaked stone tools). Analysis of lithic materials was conducted with the following objectives: (1) to identify reduction sequences represented by the lithic debitage, (2) to identify heat treatment, and (3) to identify raw materials represented among the tools and debitage.

Lithic reduction sequences were identified by examining specific attributes of the individual pieces of debitage. Lithic debitage was described using a combination of five analytical dimensions: the Free Standing Typology, triple cortex typology, an aggregate analysis, dorsal flake scar counts (Andrefsky 2005), and a technological classification following definitions provided in Root (2004). The Free Standing Typology (Sullivan and Rozen 1985) categorizes debitage into four categories: complete flake, broken flake, flake fragment, and shatter or angular debris. Broken flakes are proximal fragments that retain the platform of fracture initiation while flake fragments are medial or distal fragments without the striking platform. The triple cortex typology distinguishes between primary (100 percent cortex on dorsal side), secondary (partial cortex on dorsal side), and interior flakes. The aggregate analysis provides information about maximum flake dimensions using a concentric ring template at 1-centimeter intervals. The technological classification (Root 2004) categorizes flakes based on key diagnostic features. Among the potential classes are core reduction flakes, bifacial thinning flakes, bifacial shaping or pressure flakes, unifacial reduction flakes, shatter, simple percussion flakes, and complex percussion flakes. Raw materials represented in the lithic assemblage was identified by macroscopic and microscopic examination of each individual piece and by comparison to existing raw material type collections and/or literature regarding available raw materials within the general region.

Faunal Analysis

Faunal specimens were limited to a single item collected from EU 1. This specimen was analyzed by HRA faunal analyst, Alexander Stevenson, MA, who examined the item to identify taxon, skeletal element, portion (section of element), degree of fusion, side, presence and type of modification, and other pertinent but less common observations (e.g., mineralization). Also recorded were the presence, absence, and character of cultural modification, burning, crazing, and breakage.

Radiocarbon Dating Using Accelerator Mass Spectrometry

HRA submitted three charcoal samples to Beta Analytic Inc. (Beta) for radiocarbon dating using accelerator mass spectrometry; their report is provided in Attachment D.5. Beta applied their standard acid/alkali/acid pretreatment to the charcoal samples, wherein the sample is gently crushed and then dispersed in deionized water. Beta then washed each sample with hot hydrogen chloride (HCl) acid to eliminate carbonates, following up with an alkali wash of sodium hydroxide (NaOH) to remove secondary organic acids. The samples were then washed once more with the acid to neutralize the solution before drying. Each sample was subjected to a unique concentration of chemicals, drying temperatures, and exposure times, based on the size and composition of the sample (Beta Analytic Inc. 2018).

After pretreatment, the samples were converted into a solid graphite form and pressed onto a metal disc; reference materials were also pressed onto metal discs and then mounted onto a target wheel for analysis. Ions from a cesium gun were fired at each archaeological and reference sample, producing negatively charged carbon atoms, which were then directed through a series of terminals to the device where mass analysis occurs. Data were collected on the number of Carbon-14 atoms, as well as the number of Carbon-13 and Carbon-12 atoms, and a concentration ratio of the isotopes was formed. The results from archaeological, background, and modern samples were compared using a calibration curve to produce the calibrated radiocarbon age (Beta Analytic Inc. 2018).

Curation

All original field notes, paperwork, and collected artifacts will be permanently curated at the Burke Museum in a manner that meets the museum's curation guidelines. An artifact/sample inventory and a copy of the final report will be submitted with the project documentation. Although listed in the inventory, some samples will not be submitted for curation because they were destroyed or depleted during specialized analysis (i.e., charcoal samples submitted for radiocarbon dating), and/or they are inappropriate for curation and so have been discarded (i.e., certain soil samples).

3.2.2 Bear Creek Crossing Survey Area

Pedestrian survey and shovel probe excavations were previously conducted within a portion of the Bear Creek Crossing Survey Area as part of the Stage 1 survey (HRA and CH2M HILL 2011). For the Stage 2 survey in these locations, HRA conducted excavations using 20-centimeter-diameter hand augers. The excavations were limited to parcels managed by the City of Redmond and by King County Parks along an abandoned railroad grade that crosses Bear Creek and continues west, where it has become a multi-use paved trail. Because of the heavy disturbances in this area from railroad and trail construction and dense vegetation, augers could not be conducted every 10 meters. As such, auger excavations were focused on areas with the potential for intact sediment and to sample the proposed geotechnical bore locations.

In August 2017, HRA completed additional surveys of two areas in the Bear Creek Crossing Survey Area. This work included a pedestrian survey and hand-augering of areas near Bear Creek, both north (Area 1) and south (Area 2) of SR 202/Redmond Way. These studies were conducted in a portion of the 2017 APE for the project, referred to as the expanded survey area, that was unpaved and in areas with a high probability for cultural materials. The expanded survey area responds to design alterations that will raise NE 76th Street and the westbound on-ramp to SR 520 at the SR 202 intersection, which could affect archaeological materials that may be present west of those paved roads. However, construction impacts in these two areas will not extend deeply so deep testing methods such as were used in Marymoor Park were not needed. HRA surveyed these locations using pedestrian transects spaced between 10 and 20 meters apart, depending on landform, fences, wetlands, and vegetation. HRA employed 20-centimeter-diameter hand augers to determine if subsurface deposits were present, and

screened the augered sediments through ¼-inch mesh. The excavations were limited to parcels managed by the City of Redmond (Area 1) and the WSDOT right-of-way (Areas 1 and 2). Because of the heavy disturbances in this area from construction of the SR 520 on-ramp and NE 76th Street, auger excavations were focused on areas with the potential for intact sediment.

4 ARCHITECTURAL INVESTIGATION RESULTS

4.1 Records Search

4.1.1 Downtown Redmond Station Area

Within the 2017 APE in the Downtown Redmond Station area, HRA identified 11 buildings that would reach the age of 50 years by 2021 (i.e., were constructed in 1971 or before). All 11 buildings were previously documented for the Final EIS (HRA and CH2M HILL 2011), with eligibility determinations dating from between 2013 and 2014 (Table 4-1). DAHP determined each of the 11 buildings not eligible for listing in the NRHP. No previously unrecorded resources were identified in the proposed Downtown Redmond Station area. Because the determinations of eligibility were made within the past 10 years, in accordance with DAHP guidelines, these buildings did not need to be re-evaluated.

Table 4-1. Historic-period Resources within the 2017 APE for the Downtown Redmond Link Extension

Area	Address	Date of Construction	Eligibility	Source	Recommendation
Downtown Redmond Station	16311 NE Redmond Way	1967	Determined Not Eligible	DAHP 2013	No additional survey required
Downtown Redmond Station	7858 Leary Way NE	1950	Determined Not Eligible	DAHP 2013	No additional survey required
Downtown Redmond Station	7844 Leary Way NE	1910	Determined Not Eligible	DAHP 2013	No additional survey required
Downtown Redmond Station	16320 Cleveland Street	1950	Determined Not Eligible	DAHP 2013	No additional survey required
Downtown Redmond Station	7855 Gilman Street	1943	Determined Not Eligible	DAHP 2013	No additional survey required
Downtown Redmond Station	16389 Redmond Way	1920	Determined Not Eligible	DAHP 2013	No additional survey required
Downtown Redmond Station	16390 Cleveland Street	1956	Determined Not Eligible	DAHP 2013	No additional survey required
Downtown Redmond Station	16625 NE Redmond Way	1968	Determined Not Eligible	DAHP 2013	No additional survey required
Downtown Redmond Station	16641 NE Redmond Way	1948	Determined Not Eligible	DAHP 2013	No additional survey required
Downtown Redmond Station	16651 NE Redmond Way	1965	Determined Not Eligible	DAHP 2013	No additional survey required
Downtown Redmond Station	16717 NE Redmond Way	1949	Determined Not Eligible	DAHP 2013	No additional survey required
SE Redmond Station	17657 Redmond Way	1965	Determined Not Eligible	DAHP 2014	No additional survey required
SE Redmond Station	17609 NE 70th Street	1940	Determined Not Eligible	DAHP 2009	Not Eligible

4.1.2 SE Redmond Station Area

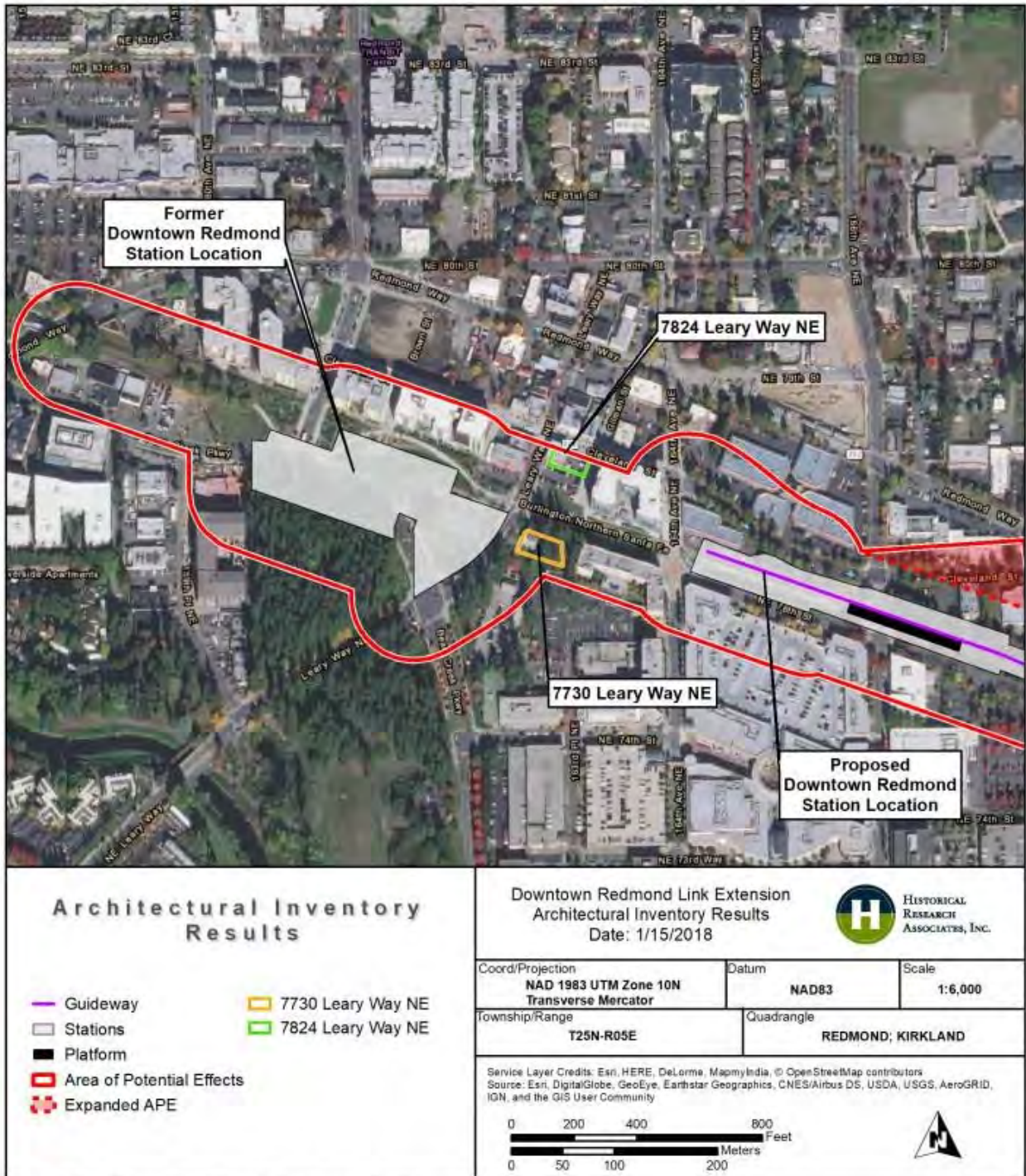
In the SE Redmond Station area, HRA identified two buildings in the 2017 APE that would reach the age of 50 years by 2021 (i.e., were constructed in 1971 or before). Both buildings were previously documented for the Final EIS (HRA and CH2M HILL 2011), with eligibility determinations dating from between 2009 and 2014. DAHP determined each building not eligible for listing in the NRHP (see Table 4-1). No previously unrecorded resources were identified in the expanded areas of the 2017 APE.

4.2 Resource Review and Effects Assessment

4.2.1 Downtown Redmond Station Area

Two previously recorded resources that were determined eligible for listing in the NRHP are located on parcels within the 2017 APE that are west of the project's proposed Downtown Redmond Station (Figure 4-1). The resources (the Justice William White House and the Bill Brown Building) were documented and recorded for the Final EIS (HRA and CH2M HILL 2011). These resources are more than 400 feet past the project terminus. On March 2, 2017, HRA conducted a reconnaissance-level field survey of the two NRHP-eligible resources to determine if their HPI forms needed to be updated due to changed conditions. These data were then used to prepare an effects assessment.²

² Sound Transit has refined its plans for the project. The station that would have been located directly west of Leary Way NE is no longer being considered and is therefore termed the "former Downtown Redmond Station Location." The project's proposed Downtown Redmond Station location spans 166th Avenue NE.



Historical Research Associates, Inc., Seattle, WA

Figure 4-1. Downtown Redmond Station Area and NRHP-eligible Historic Resources

4.2.1.1 Resource Review

7730 Leary Way NE, Justice William White House

The Justice William White House at 7730 Leary Way NE is a two-and-a-half story, cross-gabled, T-shaped frame building in the Queen Anne and Shingle styles constructed around 1900 (Figures 4-2 through 4-4). Where visible, the foundation is of poured concrete. The building is clad in lapped horizontal wood boards on the first story and a combination of shingles on the upper stories, including fishscale, squared, and sawtooth styles. The building is topped by a cedar shingle roof. The building is generally side-gabled, with a wide north-facing façade that has a projecting, front-facing gable on an overhanging upper story on the west end and two gabled dormers to the east. On the primary façade, a central porch shelters under a central second-story balcony supported by paired columns with brackets. Windows are wood-framed and often found in pairs. The building features a single-story addition on the eastern third of the rear (south) elevation (HRA and CH2M HILL 2011).

The building was determined eligible for listing in the NRHP under Criterion B for its associations with William and Emma White. William White served as an attorney for King County and for the United States before being named to the Washington State Supreme Court. Emma White served as Redmond's postmistress and organized the Women's Democratic Club. DAHP also found the building eligible under Criterion C, as a rare example of Shingle-style architecture in Redmond (HRA and CH2M HILL 2011).

No significant changes appear to have taken place since the building was surveyed in 2007 and listed as eligible in WISAARD in 2014 that would affect the building's eligibility for the NRHP. The building also remains a designated Redmond City Landmark (City of Redmond 2017). The building retains integrity of location and setting, as it remains on its original parcel where it served as both a residence for the White family and a hotel for rail passengers before being reused a golf course clubhouse. It retains integrity of design, materials, and workmanship from the historic period and appears unchanged since the 2007 survey. It retains integrity of feeling and association due to its relatively intact condition and its known associations with significant people.

The building remains significant under NRHP Criterion B for its associations with William and Emma White, and under Criterion C as a significant example of Queen Anne and Shingle-style architecture. The building also remains eligible for listing on the WHR (as the building is eligible for listing in the NRHP, it is also therefore eligible for listing in the WHR) and local registers for its architectural character and its associations with significant historic people.



Figure 4-2. Justice William White House, Photographed on March 2, 2017, Facing North



Figure 4-3. Justice William White House, Photographed on March 2, 2017, Facing East



**Figure 4-4. Justice William White House, Photographed on
March 2, 2017, Facing West**

7824 Leary Way NE, Bill Brown Building

The commercial building known as the Bill Brown Building at 7824 Leary Way NE is a two-story brick commercial block constructed in 1913 (Figures 4-5 through 4-7). It sits on a poured concrete foundation, is constructed of red brick, and is topped by a flat, built-up roof. Its primary façade faces west and includes a recessed, canted entry with a brick pillar supporting the northwest corner. The building's west-facing façade features two additional storefronts with recessed entry doors and display windows, as well as an off-center door to the building's upper floor. All storefronts include swinging doors paired with wide, wood-framed display windows and topped by wood-framed transoms. The facade's second story is symmetrical with four bays separated by brick pilasters. Each bay includes a large, fixed wood-framed window flanked by two double-hung, one-over-one, wood-framed windows. These three-part windows are topped by three fixed lights and a lintel of soldier bricks. Pilasters include decorative brick-formed triangles up near the cornice, which consist of courses of progressive, projecting brick. The brick banding is topped by a metal cornice entablature supported by widely spaced modillions. Openings on secondary elevations include wood doors and wood-framed windows with segmented arches above and brick sills below (HRA and CH2M HILL 2011).

While these basic details remain the same, the building was altered in 2007 (the same year it was initially surveyed) for the current tenant, a restaurant called the Matador. Alterations include the addition of a wrought-iron arch at the primary entry and the addition of a large, enclosed patio on the rear (west) elevation, as well as storage and systems that have been integrated into the rear elevation of the building under an existing external stair. Also, a secondary entry on the south elevation was sealed with brick (see Figure 4-5).



Figure 4-5. Bill Brown Building in 2007 Prior to Alterations (left) and in 2017 After Alterations (right), Facing Northeast



Figure 4-6. Bill Brown Building, Photographed on March 2, 2017, Facing Southeast



Figure 4-7. Bill Brown Building, Photographed on March 2, 2017, Facing West

The building was determined eligible for listing in the NRHP under Criterion B for its association with Bill Brown, a businessman who kept a wood-framed building (a saloon) at this location before replacing it with the existing brick building in 1913. Brown went on to serve as Redmond's mayor from 1919 to 1948.

The 2007 alterations to the building, including the wrought iron arch added to the primary façade, appear to be reversible. The added wrought iron framing was fitted around existing brick elements, and installation does not appear to have damaged or altered original materials in such a way as to affect the building's eligibility to the NRHP. Other alterations were confined to secondary elevations and are less impactful than those on the primary façade. The wrought iron-enclosed courtyard on the west face appears to be detached from the building. While it alters the setting and the feeling of the building somewhat, the alteration is minor. The addition of storage and systems at the external stair also appear to be minor and have appropriately been confined to the rear elevation of the building. The sealing of a secondary entry on the south elevation is not sufficient to affect the building's integrity. Furthermore, all these alterations were in place when the building was determined eligible by DAHP in 2014. Despite these changes, the building remains a Redmond City Landmark (City of Redmond 2017).

The building retains integrity of location and setting, as it remains integrated into downtown Redmond's historic core. It retains reduced integrity of design, materials, and workmanship from the historic period due to minor changes. It retains integrity of feeling and association, as it retains its original commercial use and its associations with historic figures.

The building remains significant under NRHP Criterion B for its association with former Redmond mayor, Bill Brown, and is also significant under Criterion C as a distinctive example of an early twentieth century two-part commercial block. The building remains eligible for listing on the WHR (as the building is eligible for listing in the NRHP, it is also therefore eligible for listing in the WHR) and local registers for its architectural character and its associations with significant historic people.

4.2.1.2 Effects Assessment

Two resources—the Justice William White House (7730 Leary Way NE) and the Bill Brown Building (7824 Leary Way NE)—were previously determined eligible for listing in the NRHP. These resources are located within the 2017 APE and could potentially be affected by proposed construction activities. Both buildings retain sufficient integrity to convey their significance, and remain eligible for local, state, and national registers of historic places. As no other NRHP-eligible or listed resources were identified within the Downtown Redmond Station area, HRA based its effects analysis on the project's potential to affect either the Justice William White House or the Bill Brown Building.

Sound Transit's plans to construct a light rail line through downtown Redmond were analyzed for potential effects on historic properties in previous phases of the project. As noted in the Final EIS, the proposed light rail line was "approximately 65 feet from the Justice William White House and would not pass close enough to cause an impact on the historic setting or to potentially damage the building... the project would be at-grade within the existing railroad right-of-way and consistent with the character of the railroad setting. The operation of passenger trains in the right-of-way is consistent with the historic use of the corridor" (HRA and CH2M HILL 2011).

The former Downtown Redmond Station location, west of Leary Way NE, is no longer being considered. The proposed Downtown Redmond Station location for the project spans 166th Avenue NE.

Proposed Downtown Redmond Station Location

The proposed Downtown Redmond Station location is roughly a block northeast of the Justice William White House and a half-block east of the Bill Brown Building—a large enough distance to avoid any potential direct effects on either building or its surrounding parcel because no element of construction, staging, or development is likely to occur near either building. Furthermore, the new transit station would be separated from both historic buildings by existing buildings, which would likely provide buffering and limit indirect audible and visual effects. As noted above, minor audible and visual effects are not likely to affect the integrity of either historic building to such an extent that it would be unable to convey its significance.

The construction of a new transit station at the proposed Downtown Redmond Station location will not adversely affect any historic buildings within the 2017 APE.

4.2.2 SE Redmond Station Area

Within the SE Redmond Station area, HRA resurveyed one resource, a former residence at 17609 NE 70th Street, because its HPI was 10 years old and its determination of eligibility dates to 2009 (Figure 4-8).

4.2.2.1 Resource Review

17609 NE 70th Street

The 1940 building at 17609 NE 70th Street was surveyed in 2007 as part of the original survey for the East Link Project. At that time, the original house was being used as an office, and the survey team found the house not eligible for listing in local, state, or national registers of historic places due to a lack of architectural significance and integrity (Gillespie 2007). The house is currently used as office space for Gregory Drilling, Inc.

According to the King County Assessor, the building at 17609 NE 70th Street was constructed in 1940 as a single-family residence (King County Assessor 2017). The building faces north toward NE 70th Street and is generally rectangular in plan, with a set-back projection on the west elevation. The building is one story tall above a daylight basement and equals 1,840 square feet. The building is minimal traditional in style, sits on a poured concrete foundation, is clad in lapped, horizontal boards, and is topped by a side-gabled compositional asphalt roof with no eaves, decorative fascia boards in the gable, and cornice returns (Figures 4-9 through 4-12).

The building's primary façade features a central entry door with a concrete stair and small stoop under a projecting pediment supported by two simple square posts. Flanking the stair are at-grade planters framed in concrete blocks. The building's entry door is flanked east and west by vinyl-framed sliding windows. The larger eastern window includes a central fixed light.

The east elevation includes an additional sliding, vinyl-framed window, and a one-over-one, vinyl-framed window. The secondary west elevation includes the shed-roofed addition with a modest eave, but no additional openings. The building's rear (south) elevation includes two doors, one centrally located on the original elevation and one on the western addition. The central door is flanked by two one-over-one, vinyl-framed windows.



Figure 4-8. SE Redmond and Bear Creek Crossing Survey Areas



**Figure 4-9. Gregory Drilling Office, Photographed on July 14, 2017,
Facing Southwest**



**Figure 4-10. Gregory Drilling Office, Photographed on July 14, 2017,
Facing Southeast**



**Figure 4-11. Gregory Drilling Office, Photographed on July 14, 2017,
Facing East**



**Figure 4-12. Gregory Drilling Office, Photographed on July 14, 2017,
Facing Southwest**

The building is an example of a minimal traditional home, featuring a simple plan, minimal eaves, and classical façade details, including cornice returns and a central pediment. The building does not feature the wood-framed windows that are typical of its period of construction. The building includes some of the typical details associated with the minimal traditional style, although these simple buildings include few distinctive features and are rarely significant for their architectural character. The building is not a distinctive example of its type, period, or method of construction. It does not possess high artistic value and does not appear to be the work of a master. The building is not significant under NRHP Criterion C.

From its date of construction, the building features integrity of location because it remains on its original parcel. It does not retain integrity of setting, as this once residential building is now part of an industrial yard. The building features reduced integrity of design, materials, and workmanship due to the addition of replacement windows. It features reduced integrity of feeling and association because it no longer retains its original use or retains an association with a residential setting.

The building is not eligible for listing in the NRHP under Criterion C and does not qualify for listing in state or local registers for its architectural character.

4.2.2.2 Effects Assessment

No buildings, structures, or objects within the 2017 APE in the SE Redmond Station area qualify for listing in local, state, or national registers of historic places. Therefore, the project has no potential to affect historic resources at this location.

4.3 Bear Creek Crossing Bridge

The crossing over Bear Creek is located along the alignment of the former Seattle, Lake Shore & Eastern Railroad, later the Northern Pacific Railroad, which was purchased in 1970 by BNSF. The line once crossed Bear Creek approximately 200 feet south of Redmond Way (see Figure 4-8). At the crossing is an extant timber stringer bridge (previously recorded as a “trestle,” see Gilpin and Gillespie 2010) (Figures 4-13 through 4-16). Although the bridge is in the former railroad alignment, no evidence of rails and ties remain on the structure, or abutting the bridge to the east and west. The majority of the former alignment in Redmond was converted to the Redmond Central Connector walking and bicycling trail around 2013.

The Bear Creek crossing portion of Site 45KI451 was recorded in 2010 (Gilpin and Gillespie 2010) and determined not eligible for listing in the NRHP (Sterner 2010). Because the bridge remains intact as a structure, and because of the age of its previous documentation, HRA resurveyed the bridge to make note of any changed conditions and to record it on an HPI form as an architectural (as opposed to archaeological) structure. The bridge was evaluated at an intensive level and reviewed under all NRHP criteria because it is expected to be demolished as part of the proposed project refinements.



**Figure 4-13. Bear Creek bridge, Photographed on July 14, 2017,
Facing Southeast**



**Figure 4-14. Bear Creek bridge, Photographed on July 14, 2017,
Facing Northwest**



**Figure 4-15. Bear Creek bridge, Photographed on June 27, 2017,
Facing Northeast**



**Figure 4-16. Bear Creek bridge, Photographed on June 27, 2017,
Facing Northeast**

The bridge is located in a wooded area south of Redmond Way approximately 100 feet east of the eastern termination point of the Redmond Central Connector at its intersection with the Bear Creek Trail. The bridge is accessible by foot via a minimally maintained trail that runs along the former grade of the Seattle, Lake Shore & Eastern Railroad. As previous studies have noted, a small section of the former rail line (approximately 40 feet west of the crossing) retains its rail and ties along the trail (Gilpin and Gillespie 2010), although no evidence of rails or ties are extant on the subject bridge.

Research did not reveal the date of the bridge's construction. The railroad was established in 1885 and constructed through Redmond in approximately 1888. The extant bridge's condition and materials, however, indicate it is a modern (circa 1970 or later) version of an original crossing associated with the railroad. The stringer bridge was constructed on piles with abutments of horizontal wood planks resting on stone and concrete riprap. The bridge span is approximately 30 feet and width is approximately 14 feet. High water levels made close examination of the bridge's support system impossible, but previous studies noted the bridge is supported on three sets of six piles each, two at the abutments and one in the center. These support 3 pile caps, 10 beams (or stringers), and a deck of 34 planks that are mostly covered in gravel. Deterioration has taken place at the bridge's southwest corner, exposing a portion of the structure. The bridge's only railing consists of beams laid atop the deck at the east and west edges and tied to the bridge by bolted iron fasteners (Gilpin and Gillespie 2010). Many of the structural elements, including the beams, pile caps, and railings, are incised and show evidence of pressure treatment, which is a mid- to late twentieth century process used on woods like fir to increase the absorption of wood preservatives.

The bridge, as extant, does not appear to be associated with the Seattle, Lake Shore & Eastern Railroad or with the Northern Pacific Railroad, both of which supported and spurred growth in the Puget Sound region. Were an original trestle or bridge intact at this location, it could be considered significant under Criterion A, for association with those railroads. However, the rail line was dismantled in the 1970s, and the extant bridge, based on its current materials and condition, does not appear to date to the era of the railroad. Instead, it appears to be an independently constructed crossing that used the alignment following decommissioning of the railroad. The bridge, as it exists today, is not significant for its association with the two rail lines under NRHP Criterion A.

Research did not reveal that the bridge has independent association with any significant person in local, state, or national history. The bridge is not significant under NRHP Criterion B. The bridge is an example of a common and ubiquitous type with typical structural features, including piles, pile caps, beams, and a plank deck. The bridge does not include the rails, ties, or spikes that identify any former use as a railroad trestle. Furthermore, incising is not a typical feature of late nineteenth century or early twentieth century bridges. Based on this detail, HRA suggests that the bridge was constructed possibly outside the historic period. Regardless, it is not a significant example of a late nineteenth or early twentieth century bridge under NRHP Criterion C, and does not appear to be independently eligible for its design/construction within any context under Criterion C. The bridge is not expected to reveal new information about history or prehistory. The bridge is not significant under NRHP Criterion D.

When associated with the historic period of the railroad, the bridge features poor integrity. Although it remains in or near an original crossing location at Bear Creek, it retains poor integrity of setting, as it no longer functions as part of a working rail system with the associated landscape, which would have included a cleared corridor with associated railroad features, including safety equipment and depots or stations. Redmond's original station, which was constructed in 1889, was demolished in 1972 (Gilpin and Gillespie 2010). The bridge retains no integrity of design, materials, or workmanship for its association with the railroad. Furthermore, the bridge features poor integrity of feeling and association because it

no longer retains its original use, evidence of rails and ties, or its original association with an uninterrupted rail corridor.

Consistent with previous findings, the bridge does not rise to the level of significance or retain sufficient integrity to meet any of the criteria for listing in local, state, or national registers of historic places, and is not eligible for listing in the WHR or the NRHP.

5 ARCHAEOLOGICAL INVESTIGATION RESULTS

5.1 Systematic Deep Augering

HRA conducted archaeological investigations for the project within two areas: the Marymoor Park Survey Area and the Bear Creek Crossing Survey Area (Figures 5-1 and 5-2). Stage 1 archaeological investigations were previously performed at these survey areas, with the exception of the expanded areas of the 2017 APE. However, based on the results of testing (Kopperl et al. 2010) and data recovery excavations (Kopperl 2016) that have occurred at the Bear Creek Site (45KI839) since Appendix H4 of the Final EIS was completed (HRA and CH2M HILL 2011), additional excavations (Stage 2 archaeological investigations) in the vicinity of Bear Creek were needed.

The sediment stratigraphy encountered in the Marymoor Park and the Bear Creek Crossing Survey Areas during the deep augering included thick alluvial and slackwater deposits overlying glacially-derived outwash. In the east-central portion of the Marymoor Park Survey Area, and in much of the Bear Creek Crossing Survey Area, thick fill deposits capped the underlying alluvium. Fence diagrams depicting the sediment stratigraphy of the survey areas are provided as Figures 5-3 and 5-4. Strata descriptions are provided below. Because of the nature of the current investigations (mechanical- and hand-augering in roughly 20-centimeter intervals), general stratigraphic correlations to sediments identified at the nearby Bear Creek Site were performed.

Stratum 1: Stratum 1 consisted of a brown to dark yellowish brown (10YR 4/3 to 3/4), moderately poorly sorted loam with approximately 20 percent rounded to subangular fine gravels. This stratum displayed incipient soil development and represents the modern topsoil. In portions of both survey areas, modern debris and possible historic-period materials were found within this stratum. In the Bear Creek Crossing Survey Area, Stratum 1 sediment included layers of sands and silts that represent relatively recent alluvium.

Stratum 2: Stratum 2 materials were generally light-colored (light olive brown [2.5Y 5/3] to light brownish gray [2.5Y 6/2]) silts with variable amounts of clay and sand-sized particles. Some pockets or layers of greenish grey (Gley 1 5/10GY) silty clay were present at depth within this stratum (possibly ash from the eruption of Mt. Mazama). Dark yellowish brown (10YR 4/6) iron oxide mottles and stains along roots casts were also common. This deposit is consistent with Stratum II as defined by Hodges et al. (2016:89–90), who interpreted these deposits as diatom-rich, later Holocene slackwater alluvium originating from lower Bear Creek or the Sammamish River. Sandier lenses within the stratum represent larger-than-average flood events.

FIGURE REDACTED

Figure 5-1. Auger Locations in Western Portion of the Marymoor Park Survey Area

FIGURE REDACTED

Figure 5-2. Auger Locations in Eastern Portion of the Marymoor Park Survey Area and Bear Creek Crossing Survey Area

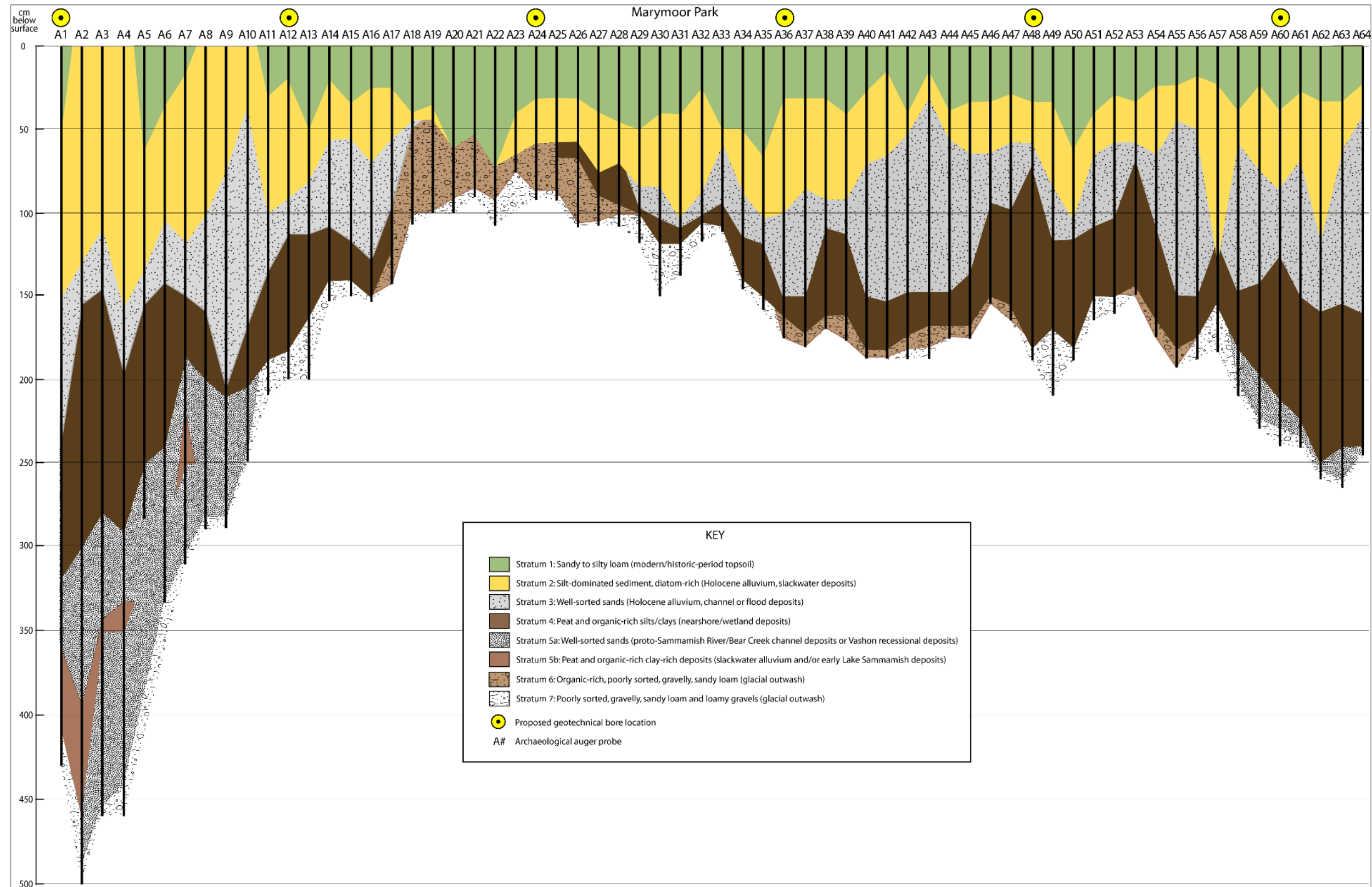


Figure 5-3. Fence Diagram Depicting the Sediment Stratigraphy of the Survey Areas Based on Data from Augers 1–64

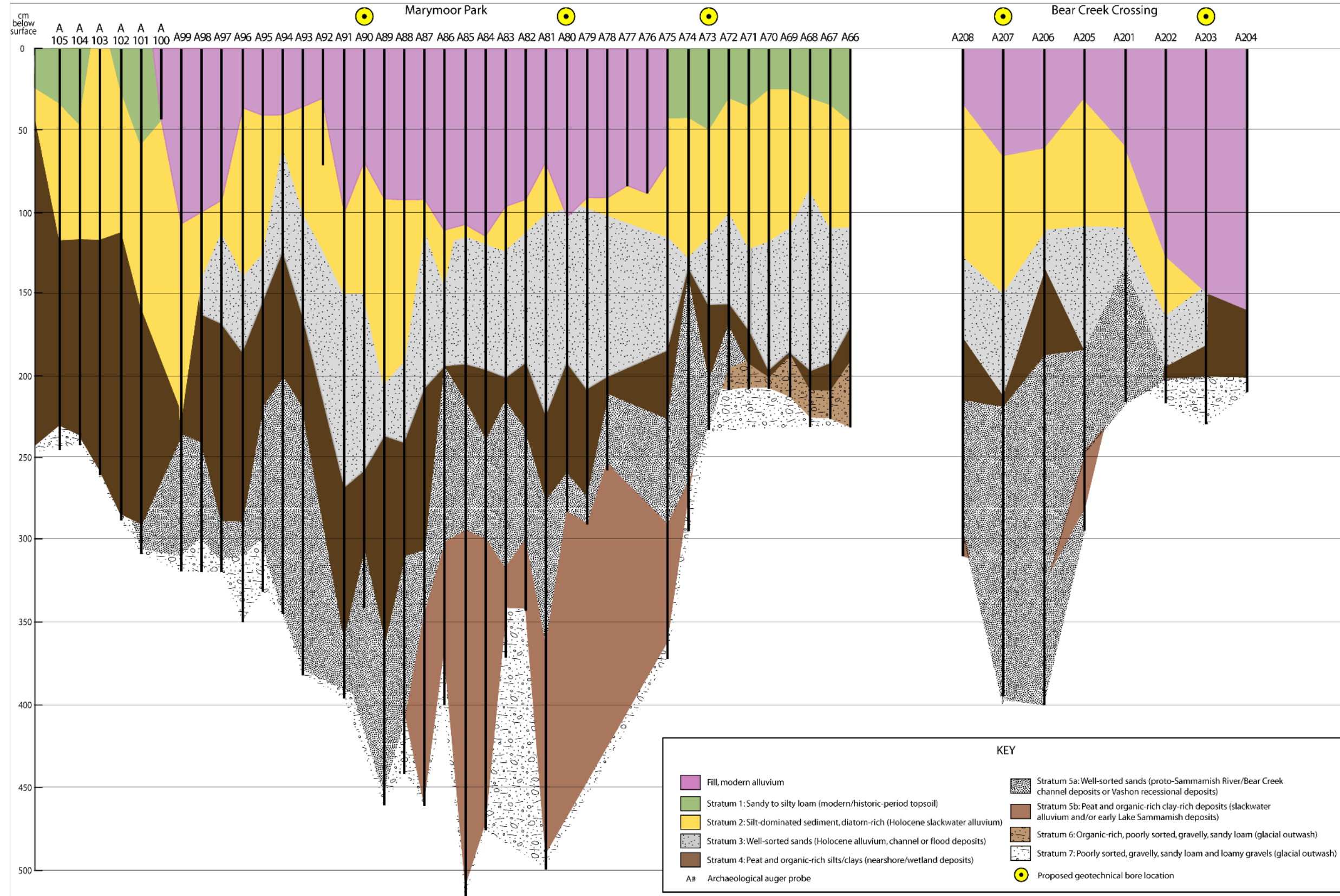


Figure 5-4. Fence Diagram Depicting the Sediment Stratigraphy of the Survey Areas Based on Data from Augers 66–105

Stratum 3: This stratum included thin beds of olive brown (2.5Y 4/3) to light olive brown (2.5Y 5/3) well-sorted sands, generally ranging in size from very fine to medium. Individual layers of sand within Stratum 3 deposits were often thin, averaging 10 centimeters in thickness, and were differentiated based on grain size and color. As a whole, beds of Stratum 3 sediments generally fine upwards. These bedded sand deposits were found between Stratum 2 and Stratum 4 throughout the survey areas. In the western portion of the Marymoor Park Survey Area, Stratum 3 likely correlates to Hodges et al.'s (2016:79) Stratum IV, which is interpreted as alluvial deposits associated with the ancestral Sammamish River. At the western end of Marymoor Park, it is possible that the lowermost Stratum 3 sediments correlate to Hodges et al.'s (2016:73–79) Strata Va and Vb, which represent deposits originating in a setting that has shifted between a nearshore to a wetland environment. To the east, Stratum 3 sands are consistent with Stratum IV defined by Hodges et al. (2016:79–89) as braided stream deposits, possibly associated with ancestral Bear Creek (Hodges et al. 2016:123).

Stratum 4: This stratum included deposits of silt-rich, very dark brown (10YR 2/2) to dark yellowish brown (10YR 4/4) fibrous to woody peats interbedded with layers of well-sorted, often organic-rich, dark brown (10YR 3/3) to dark olive gray (5Y 3/2), very fine to medium sands. The Stratum 4 sediments do not correlate well with sediments identified by Hodges et al. (2016:73–79).

Stratum 5: Stratum 5 consisted of interlayered beds of dark gray (5Y 4/1) to dark greenish gray (Gley 1 4/5GY) well-sorted fine to coarse sands (**Stratum 5a**) and dark yellowish brown (10YR 4/4) to dark olive gray (5Y3/2) organic-rich clayey silts and peats (**Stratum 5b**). This stratum is consistent with Stratum IV identified at the Bear Creek Site by Hodges et al. (2016:71–72) and Qal-o deposits defined for the Marymoor Park vicinity (Hodges et al. 2016:123–124). Stratum 5 may represent materials deposited within and along the margins of the proto-Sammamish River or proto-Bear Creek. A layer of dark greenish gray (Gley 1 4/10GY) silty clay was encountered at the base of Stratum 5a deposits in some units in the eastern half of the Marymoor Park Survey Area that may represent either slackwater alluvium or Vashon recessional lacustrine sediment (Hodges et al. 2016:112).

Stratum 6: Toward the west-central portion of the Marymoor Park Survey Area, the lower sections of some of the augers contained organic-rich, dark brown (10YR 3/3) loamy sediments intermixed with materials consistent with glacial outwash. This stratum may be a mixture of Strata 4 and 7 materials, or it may represent a former soil that formed at the top of the glacial outwash.

Stratum 7: This stratum was a very dark greenish gray (Gley 1 3/10GY) to greenish gray (Gley 1 5/5GY), poorly sorted, gravelly sandy loams to loamy gravels. Gravel, mostly rounded to subrounded, increased in content and size with depth. This stratum is consistent with Hodges et al.'s (2016:71–73) Stratum VI, glacial outwash deposits.

5.1.1 Marymoor Park Survey Area

Previous investigations in the Marymoor Park Survey Area include a pedestrian survey of the 2010 APE and the excavation of 46 shovel probes (HRA and CH2M HILL 2011). These shovel probes were 30 centimeters in diameter and excavated to approximately 80 centimeters with a shovel before using a 10-centimeter-diameter hand auger. The augers extended to between 100 and 260 centimeters below surface (cmbs), but due to their size, they could not reach the strata with the potential for cultural materials in this area identified by Kopperl (2016).

During the 2017 investigations, HRA excavated 105 augers within the Marymoor Park Survey Area (see Figures 5-1 and 5-2). Augers 1 through 64 were excavated in the western portion of the survey area using the mechanical auger. Auger 65 was started using the mechanical auger but was terminated at

40 cmbs when utility wires were encountered. This auger was abandoned and, after resurveying for additional utilities, all other augers in the area were excavated by hand (Augers 66 through 105). Augers were terminated at the depth of glacial outwash, which was characterized by a poorly sorted sediment mixture of silts, clays, sands, and gravels. Glacial outwash was encountered between 250 and 500 cmbs (Table 5-1).

The maximum depth the mechanical auger could reach was between 280 and 290 centimeters. All 64 mechanical augers excavated in the survey area reached glacial outwash except for Augers 1 through 7. In order to extend these auger holes to the depth of glacial outwash, the HRA crew returned to these units and employed hand augers. These seven auger holes had been backfilled after the mechanical excavation and so they were re-excavated to a depth of 270 centimeters and the backfilled dirt was not screened. At 270 centimeters in depth, HRA screened and examined the hand-augered sediments for cultural material at intervals of approximately 10 centimeters. Augers 1 through 4 and 6 through 7 reached glacial outwash. Auger 5 was terminated at 280 centimeters in depth due to a cobble impediment.

As noted above in Section 3.2, the HRA crew found one artifact in Auger 1 and assigned it resource number 2646-1. The remaining 104 augers excavated in the Marymoor Park Survey Area did not contain cultural material.

Table 5-1. Auger Excavation Results in the Marymoor Park Survey Area

Auger No.	Excavation Method	Depth (cmbs)	Reason for Termination	Results
1	Mechanical auger extended with hand auger	435	Glacial outwash	Positive Resource No. 2646-1 (280–290 cmbs)
2	Mechanical auger extended with hand auger	500	Glacial outwash	Negative
3	Mechanical auger extended with hand auger	460	Glacial outwash	Negative
4	Mechanical auger extended with hand auger	460	Glacial outwash	Negative
5	Mechanical auger extended with hand auger	280	Rock impediment	Negative
6	Mechanical auger extended with hand auger	330	Loose sand; no recovery	Negative
7	Mechanical auger extended with hand auger	310	Glacial outwash	Negative
8	Mechanical auger	290	Glacial outwash	Negative
9	Mechanical auger	290	Glacial outwash	Negative
10	Mechanical auger	250	Glacial outwash	Negative
11	Mechanical auger	210	Glacial outwash	Negative
12	Mechanical auger	200	Glacial outwash	Negative
13	Mechanical auger	200	Glacial outwash	Negative
14	Mechanical auger	155	Glacial outwash	Negative
15	Mechanical auger	150	Glacial outwash	Negative
16	Mechanical auger	155	Glacial outwash	Negative
17	Mechanical auger	140	Glacial outwash	Negative
18	Mechanical auger	110	Glacial outwash	Negative
19	Mechanical auger	100	Glacial outwash	Negative

Table 5-1. Auger Excavation Results in the Marymoor Park Survey Area (continued)

Auger No.	Excavation Method	Depth (cmbs)	Reason for Termination	Results
20	Mechanical auger	100	Glacial outwash	Negative
21	Mechanical auger	85	Glacial outwash	Negative
22	Mechanical auger	110	Glacial outwash	Negative
23	Mechanical auger	75	Glacial outwash	Negative
24	Mechanical auger	90	Glacial outwash	Negative
25	Mechanical auger	90	Glacial outwash	Negative
26	Mechanical auger	110	Glacial outwash	Negative
27	Mechanical auger	110	Glacial outwash	Negative
28	Mechanical auger	100	Glacial outwash	Negative
29	Mechanical auger	120	Glacial outwash	Negative
30	Mechanical auger	150	Glacial outwash	Negative
31	Mechanical auger	135	Glacial outwash	Negative
32	Mechanical auger	120	Glacial outwash	Negative
33	Mechanical auger	115	Glacial outwash	Negative
34	Mechanical auger	145	Glacial outwash	Negative
35	Mechanical auger	160	Glacial outwash	Negative
36	Mechanical auger	175	Glacial outwash	Negative
37	Mechanical auger	180	Glacial outwash	Negative
38	Mechanical auger	170	Glacial outwash	Negative
39	Mechanical auger	175	Glacial outwash	Negative
40	Mechanical auger	185	Glacial outwash	Negative
41	Mechanical auger	185	Glacial outwash	Negative
42	Mechanical auger	185	Glacial outwash	Negative
43	Mechanical auger	185	Glacial outwash	Negative
44	Mechanical auger	175	Glacial outwash	Negative
45	Mechanical auger	175	Glacial outwash	Negative
46	Mechanical auger	155	Glacial outwash	Negative
47	Mechanical auger	165	Glacial outwash	Negative
48	Mechanical auger	185	Glacial outwash	Negative
49	Mechanical auger	210	Glacial outwash	Negative
50	Mechanical auger	185	Glacial outwash	Negative
51	Mechanical auger	165	Glacial outwash	Negative
52	Mechanical auger	160	Glacial outwash	Negative
53	Mechanical auger	150	Glacial outwash	Negative
54	Mechanical auger	175	Glacial outwash	Negative
55	Mechanical auger	190	Glacial outwash	Negative
56	Mechanical auger	185	Glacial outwash	Negative
57	Mechanical auger	180	Glacial outwash	Negative
58	Mechanical auger	210	Glacial outwash	Negative
59	Mechanical auger	230	Glacial outwash	Negative

Table 5-1. Auger Excavation Results in the Marymoor Park Survey Area (continued)

Auger No.	Excavation Method	Depth (cmbs)	Reason for Termination	Results
60	Mechanical auger	240	Glacial outwash	Negative
61	Mechanical auger	240	Glacial outwash	Negative
62	Mechanical auger	260	Glacial outwash	Negative
63	Mechanical auger	265	Glacial outwash	Negative
64	Mechanical auger	245	Glacial outwash	Negative
65	Mechanical auger	45	Electrical wires	Negative
66	Hand auger	230	Glacial outwash	Negative
67	Hand auger	225	Glacial outwash	Negative
68	Hand auger	230	Glacial outwash	Negative
69	Hand auger	215	Glacial outwash	Negative
70	Hand auger	210	Glacial outwash	Negative
71	Hand auger	210	Glacial outwash	Negative
72	Hand auger	210	Glacial outwash	Negative
73	Hand auger	210	Glacial outwash	Negative
74	Hand auger	230	Glacial outwash	Negative
75	Hand auger	295	Glacial outwash	Negative
76	Hand auger	370	Glacial outwash	Negative
77	Hand auger	85	Glacial outwash	Negative
78	Hand auger	80	Loose sand; no recovery	Negative
79	Hand auger	260	Loose sand; no recovery	Negative
80	Hand auger	290	Rock impediment	Negative
81	Hand auger	280	Loose sand; no recovery	Negative
82	Hand auger	500	Loose sand; no recovery	Negative
83	Hand auger	340	Glacial outwash	Negative
84	Hand auger	370	Glacial outwash	Negative
85	Hand auger	470	Loose sand; no recovery	Negative
86	Hand auger	520	Glacial outwash	Negative
87	Hand auger	400	Loose sand; no recovery	Negative
88	Hand auger	460	Loose sand; no recovery	Negative
89	Hand auger	440	Loose sand; no recovery	Negative
90	Hand auger	460	Glacial outwash	Negative
91	Hand auger	340	Glacial outwash	Negative
92	Hand auger	395	Glacial outwash	Negative
93	Hand auger	380	Glacial outwash	Negative
94	Hand auger	345	Glacial outwash	Negative

Table 5-1. Auger Excavation Results in the Marymoor Park Survey Area (continued)

Auger No.	Excavation Method	Depth (cmbs)	Reason for Termination	Results
95	Hand auger	330	Glacial outwash	Negative
96	Hand auger	350	Glacial outwash	Negative
97	Hand auger	320	Glacial outwash	Negative
98	Hand auger	320	Glacial outwash	Negative
99	Hand auger	320	Glacial outwash	Negative
100	Hand auger	45	Root impediment	Negative
101	Hand auger	310	Glacial outwash	Negative
102	Hand auger	285	Glacial outwash	Negative
103	Hand auger	265	Glacial outwash	Negative
104	Hand auger	240	Glacial outwash	Negative
105	Hand auger	245	Glacial outwash	Negative

5.1.1.1 Resource 2646-1

One cryptocrystalline silicate (CCS) flake was encountered within Auger 1 at a depth of approximately 280 to 300 centimeters (Figure 5-5). Auger 1 is located [redacted] in a relatively open area of tall grasses with cottonwood, aspen, and maple trees in the surrounding area (Figure 5-6). HRA crew photographed the artifact, placed it in a bag, and buried it within the auger hole at a depth of approximately 20 centimeters. HRA lithic analyst Steve Hamilton examined photographs of the flake and verified its cultural attributes (Figure 5-7).

In order to compare the elevation of the CCS flake found in Auger 1 to the cultural deposit at the nearby Bear Creek Site (45KI839), HRA downloaded high-resolution light detection and ranging (LiDAR) data for the project area (Puget Sound LiDAR Consortium 2000). The LiDAR data have 1.8-meter horizontal accuracy and better than 30-centimeter vertical accuracy. Based on these data, the location of Auger 1 is at 11.8 meters amsl. The flake was found at an approximate depth of 2.8 meters, or 9.0 meters amsl. According to Kopperl (2016), the cultural stratum containing circa 12,000-year-old archaeological materials at the Bear Creek Site was found between 8.8 and 9.4 meters amsl. These data suggest that the CCS flake found in Auger 1 may be related to the same occupation period as the Bear Creek Site.

Stratigraphic analysis of Auger 1 revealed sediment stratigraphy consistent with that noted in portions of the Bear Creek Site. The artifact recovered in Auger 1 was found within Stratum 4, a deposit that appears to correlate with Bear Creek’s approximately 12,000-year-old cultural Stratum V (Kopperl 2016). A detailed graphic of the Auger 1 stratigraphy is shown in Figure 5-5.

An additional survey plan was developed in coordination with Sound Transit, King County, FTA, and DAHP in response to identification of the artifact designated with temporary number 2646-1 (HRA 2017). This plan included removal of culturally sterile overburden and the excavation of EUs in the 2646-1 vicinity. The results of these investigations are presented in Section 5.2.

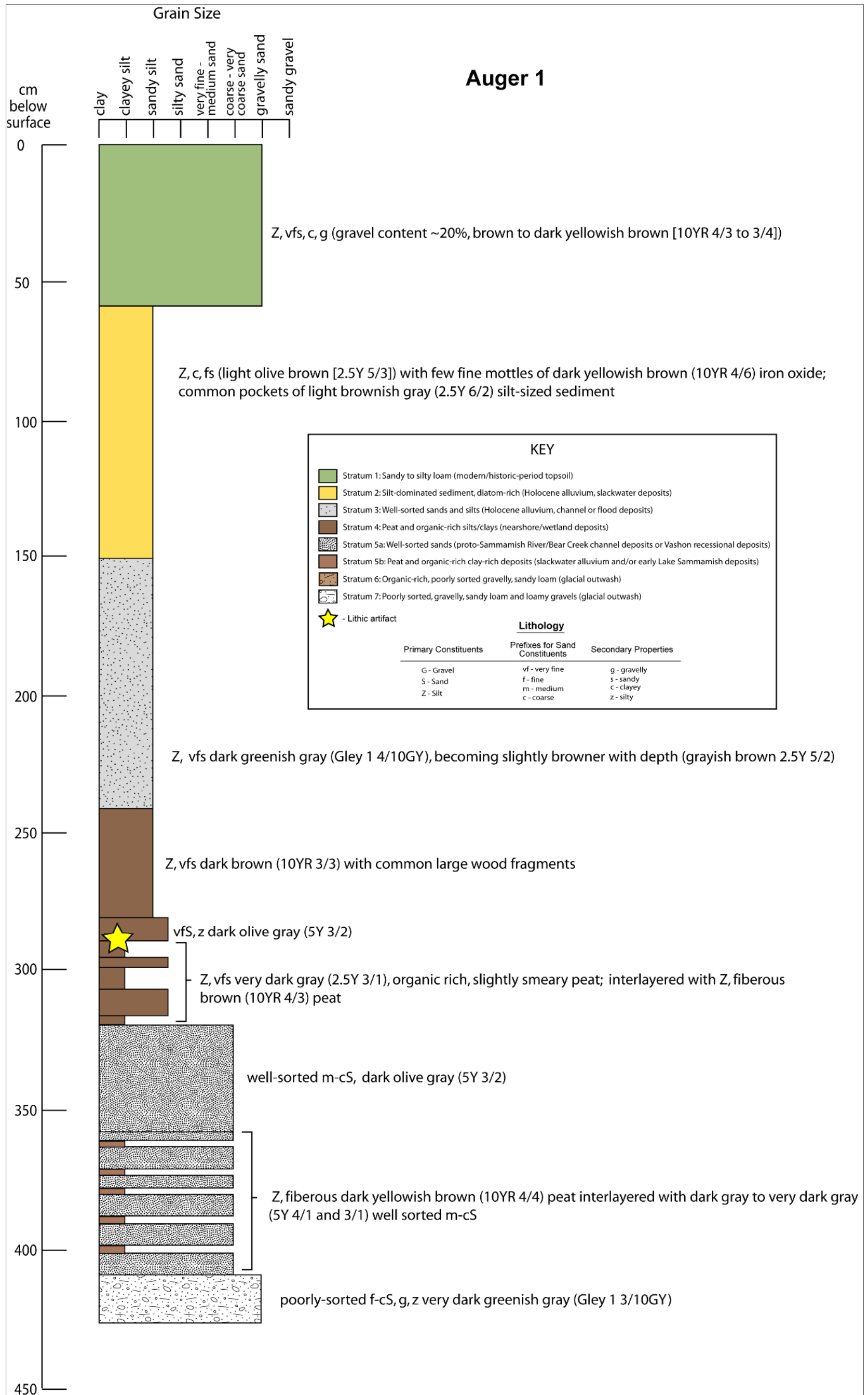


Figure 5-5. Sediment Stratigraphy Encountered in Auger 1

FIGURE REDACTED

Figure 5-6. Overview of Auger 1 Being Extended with a Hand Auger, Facing West

Ventral surface



Dorsal surface



Figure 5-7. CCS Flake (Artifact 2646-1) Found Between 280 and 290 Centimeters in Auger 1

5.1.2 Bear Creek Crossing Survey Area

Previous investigations in the Bear Creek Crossing Survey Area include a pedestrian survey and the excavation of seven shovel probes in areas within the 2010 APE defined in the Final EIS. Remnants of the Seattle, Lake Shore & Eastern Railroad were recorded within the 2010 APE as a portion of Site 45KI451 (recorded elsewhere in King County) (Gilpin and Gillespie 2010). The excavated shovel probes were 30 centimeters in diameter and excavated to approximately 80 centimeters with a shovel before using a 10-centimeter-diameter hand auger to extend the depth of the hole. The previously excavated shovel probes were placed between NE 76th Street (also the on-ramp to westbound SR 520) and the trail system on the west side of Bear Creek. At that time, HRA identified fragments of dark brown and black vitreous conglomerate in four of the shovel probes (three west of Bear Creek and one east of Bear Creek) and interpreted these to be locomotive clinker associated with the railroad. In addition, fragments of colorless glass and a railroad spike were found in one of the shovel probes with clinker (west of Bear Creek). HRA identified all of the items in gravelly fill material between 0 and 80 cmbs. The augers extended to between 180 and 260 cmbs, but due to their size, they could not reach the strata with the potential for cultural materials in this area identified by Kopperl at the Bear Creek Site (2016).

In June 2017, HRA excavated eight hand augers (Augers 201 through 208) within the portion of the Bear Creek Crossing Survey Area that is within the 2010 APE defined in the Final EIS (see Figure 5-2); this location is between Areas 1 and 2 of the expanded APE. This area is situated both east and west of Bear Creek, and investigations were limited to parcels managed by the City of Redmond and King County Parks. The remnants of the Seattle, Lake Shore & Eastern Railroad (Site 45KI451) were observed (Figure 5-8). The railroad was constructed around 1888 and operated as Northern Pacific from 1892 until 1970 when it was purchased by BNSF and placed out of service (Gilpin and Gillespie 2010). Site 45KI451 has been recorded in numerous places in Washington and has been determined to be not eligible for listing in the NRHP (Sternner 2010). The railroad alignment has been built up with fill materials that created an artificial berm.

One possible lithic artifact was identified in Auger 202 and assigned resource number 2646-2. This item was subsequently examined by a lithic specialist and determined to not be a precontact artifact. A number of items possibly associated with Site 45KI451 were found in fill material within Auger 203. In addition, Auger 201, located on the west bank of Bear Creek, produced a single rusted bullet casing between approximately 200 and 220 centimeters (Figure 5-9). However, the auger hole was below the water table and the sediments were loose, saturated sands. As such, it is unclear if the bullet casing came from this depth or fell in from the surface or sides of the auger hole above. Regardless, the bullet casing is not diagnostic, and it was not recorded as an archaeological resource.



Figure 5-8. Overview of the Railroad Grade (45KI451) Just West of Bear Creek, Facing West

Overview of Auger 201, Facing South



Bullet Casing Found in Auger 201
(scale in centimeters)

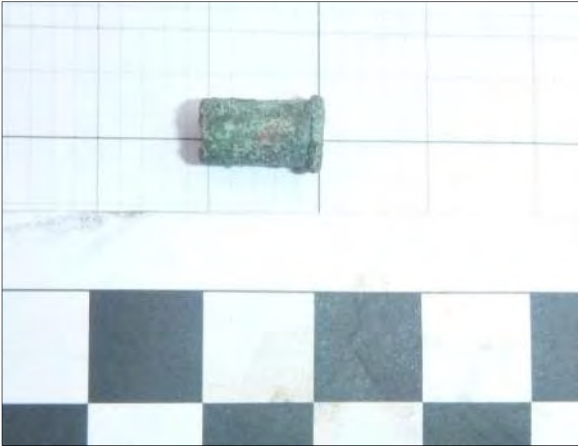


Figure 5-9. Overview of Auger 201 and Bullet Casing Found in the Auger

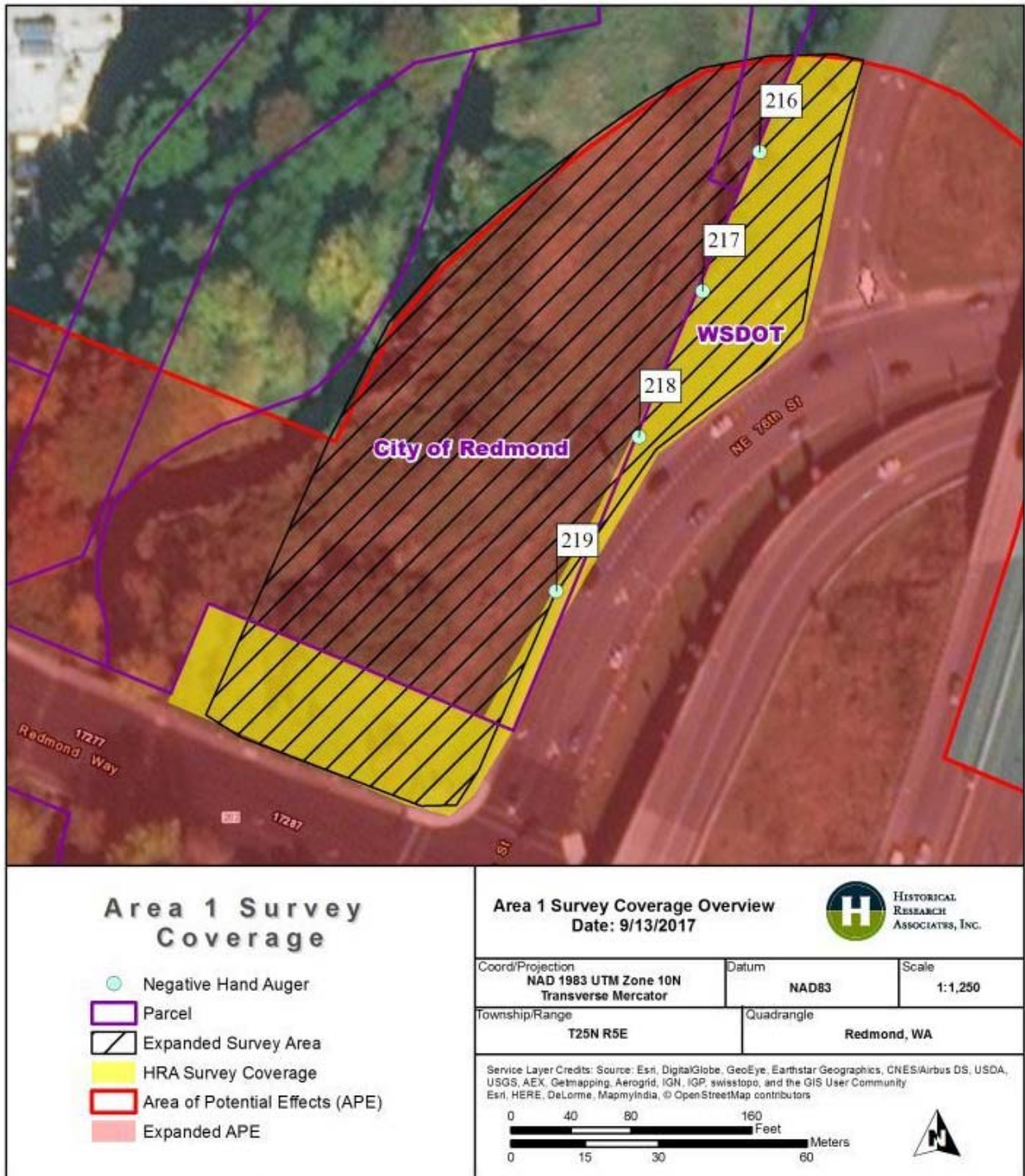
Table 5-2. Auger Excavation Results in the Bear Creek Crossing Survey Area

Auger No.	Excavation Method	Depth (cmbs)	Reason for Termination	Results
201	Hand auger	220	Loose sand; no recovery	Negative
202	Hand auger	240	Glacial outwash	Negative
203	Hand auger	230	Glacial outwash	Positive- Site 45K1451 (34–125 cmbs)
204	Hand auger	210	Glacial outwash	Negative
205	Hand auger	295	Loose sand; no recovery	Negative
206	Hand auger	400	Loose sand; no recovery	Negative
207	Hand auger	395	Loose sand; no recovery	Negative
208	Hand auger	310	Loose sand; no recovery	Negative

In August 2017, HRA surveyed two additional areas of the Bear Creek Crossing Survey area in the expanded survey area (see Figure 5-2). The testing included hand-augering of areas near Bear Creek both north (Area 1) and south (Area 2) of SR 202/Redmond Way. No cultural material was identified during the investigations.

Area 1

HRA conducted a pedestrian survey of this area within the WSDOT right-of-way. Access was granted for the City of Redmond’s parcel north of Redmond Way but it was inaccessible due to a tall fence along the edge of WSDOT’s right-of-way (Figure 5-10). Four auger probes were excavated immediately adjacent to the WSDOT fence in this area at the base of the artificially graded slope that leads up to NE 76th Street (Figure 5-11). All four augers were terminated at less than 1 meter depth and contained 50 to 80 percent subangular pebble- and cobble-sized gravels throughout, which is interpreted as fill deposits. No cultural material was found in the four augers that were excavated in the limited part of Area 1 that was accessible.



Historical Research Associates, Inc., Seattle, WA

Figure 5-10. Aerial Map of Area 1 Showing Areas Surveyed



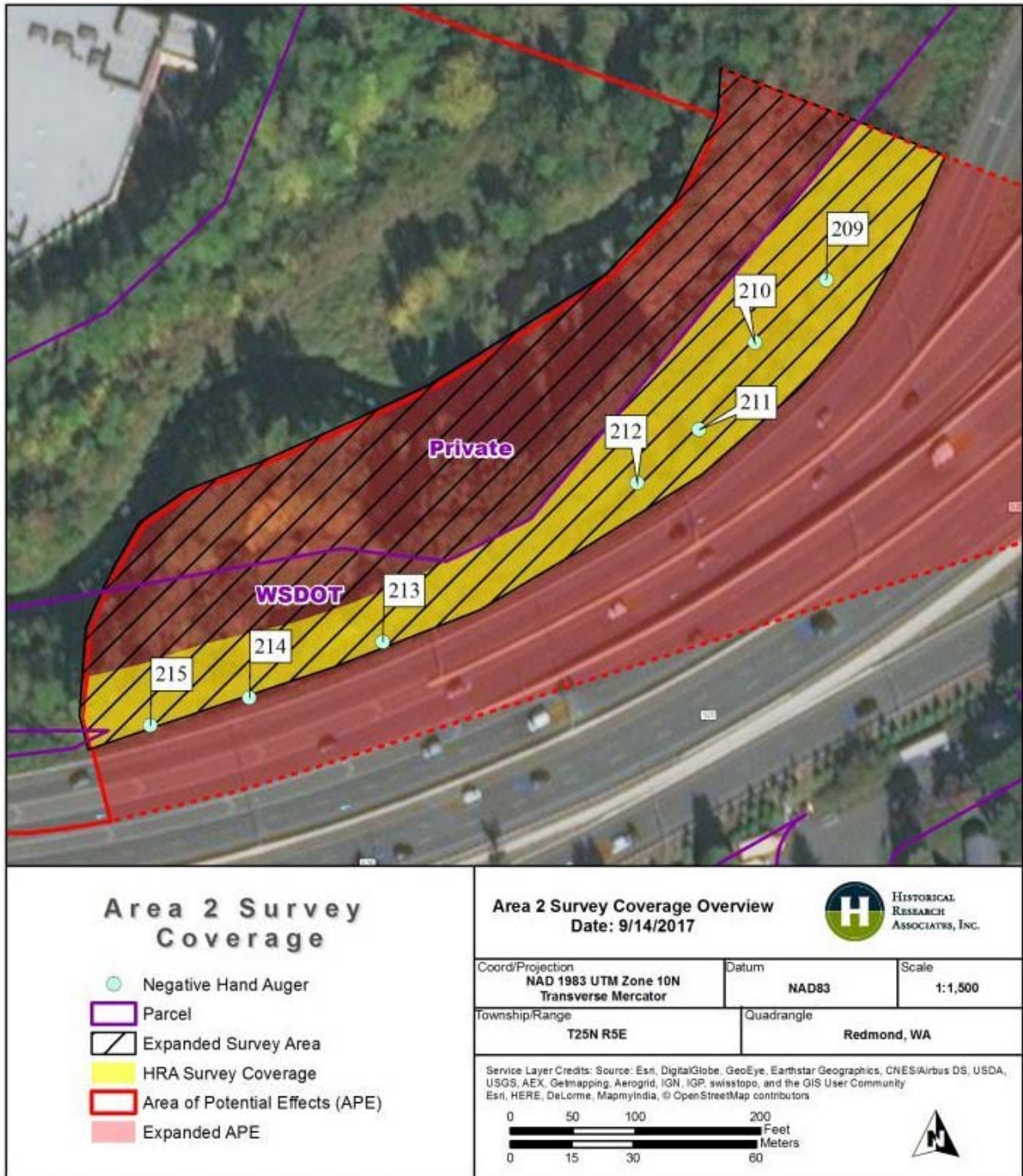
Figure 5-11. Overview of the WSDOT ROW in Area 1 with NE 76th Street at right and Auger 217 in the Background, Facing Northeast

Area 2

HRA excavated seven augers (Augers 209–215) within Area 2 of the expanded APE (Figure 5-12). HRA conducted a pedestrian survey of this area within the WSDOT right-of-way where access was granted and where potential impacts from raising the grade of the SR 520 on-ramp could occur. The area surveyed was approximately 30 meters wide between the WSDOT fence to the west and the SR 520 on-ramp to the east. From east to west there is the paved on-ramp for SR 520, a guard rail, a concrete retaining wall, a sharp slope leading down to the bottom of a ditch, and then a sharp slope up to the WSDOT fence (Figure 5-13). The entire area west of the retaining wall is covered in extremely dense blackberries, bushes, and small trees. The pedestrian survey focused on the edge of the ditch by the retaining wall and the bottom of the ditch (Figure 5-14).

Augers 209–212 were excavated along this transect in the ditch before the vegetation became impenetrable farther to the southwest. Auger 209 was excavated just east of the ditch bottom, Auger 210 was excavated just west of the ditch bottom, Auger 211 was excavated in the center of the ditch, and Auger 212 was excavated in a slightly clearer area near a tree just west of the ditch. The maximum depth reached in the augers in this area was 120 centimeters, however the soil profile is very similar to that seen in the nearby Marymoor Park Survey Area, with a thin Stratum 2 underlain by a thin peat deposit and then glacial outwash (Figure 5-15). It is likely that the ditch was artificially created to encourage water run-off during the construction of the SR 520 on-ramp and, if there was thick alluvium present prior to creation of the ditch, like the deposit seen in the Marymoor Park Survey Area, it has been stripped from the area.

Just south of Auger 212, the ditch ends in a 6-foot-tall pile of boulders atop a large concrete culvert. South of the culvert an inundated area was visible that likely represents an overflow channel of Bear Creek. An additional three augers were excavated between the guard rail and this inundated area (Augers 213–215). The ground surface is between 5 and 8 feet below the guard rail here, with the ponded water approximately 15 meters west of the guard rail (Figure 5-16). Sediments in each of these



Historical Research Associates, Inc., Seattle, WA

Figure 5-12. Aerial Map of Area 2 Showing Areas Surveyed



Figure 5-13. Ditch in WSDOT Right-of-Way in Area 2 Showing Auger 209 in Progress, Facing Southwest



**Figure 5-14. Transect Cut Through the Vegetation in the Ditch in Area 2,
Facing Northeast**



Figure 5-15. Typical Soil Profile (Auger 211) in the Northern Portion of Area 2



Figure 5-16. Auger 213 in Progress in Area 2 Showing Inundated Area in the Background (right), Taken from the Retaining Wall, Facing Northwest

augers was composed of a sandy silt loam with modern trash (plastic and metal) and up to 60 percent subangular and subrounded gravels interpreted as fill deposits. No cultural material was found in the seven augers excavated in Area 2 of the expanded APE.

5.1.2.1 Site 45KI451

Auger 203 is located where there is a proposed geotechnical bore on the east side of Bear Creek. HRA placed this auger in the built-up railroad grade area in order to explore the bore location; fill was present in the upper 150 centimeters of the auger. HRA observed a few fragments of colorless and amber vessel glass, one undecorated whiteware fragment, one wire nail, and several fragments of vitreous conglomerate that may be clinker (Figure 5-17). These items were found between 30 and 120 centimeters and were nearly identical to items previously recorded in 2010 in a shovel probe excavated in the vicinity of Auger 203 (Gilpin and Gillespie 2010). The items identified in Auger 203 and those that were previously identified are interpreted to be associated with Site 45KI451, which has been determined not eligible for listing in the NRHP (Sternner 2010).



Figure 5-17. Items Found in Auger 203

5.2 Overburden Removal and Excavation Units

Three trenches (Trench 1, Trench 2, and Trench 3) were excavated with a backhoe (Figures 5-18 to 5-20). A sample of each stratum encountered during the overburden removal was screened, and no cultural material was identified. Three EUs were placed in the base of each trench (Figures 5-21 to 5-23; Table 5-3). EU 1 was adjacent to Auger 1, the auger where artifact 2646-1 was initially identified during systematic deep augering in the Marymoor Park Survey Area. Table 5-3 shows the depths of excavations and volume excavated.



Figure 5-18. Location of Overburden Removal and Excavation Units Prior to Excavation, Facing East



Figure 5-19. Trench 1 in Foreground and Trench 3 in Background, Facing East

FIGURE REDACTED

Figure 5-20. Sketch Map of the Trenches and EUs Conducted in the Vicinity of Auger 1

Table 5-3. Depth and Volume of Excavations Conducted in the Vicinity of Auger 1

Provenience	Maximum Depth of Backhoe Excavation (centimeters below datum [cmbd])	Maximum Depth of Excavation Unit (cmbd)	Volume of Excavation Unit (cubic meters)
Trench 1/EU 1	240 (and later extended to 320)	360	1.2
Trench 2/EU 2	230	370	1.4
Trench 3/EU 3	230	310 and extended to 330 in northwest quarter	0.85



Figure 5-21. EU 1 in Trench 1 at 320 cmbd Prior to Extending Backhoe Excavation



Figure 5-22. EU 2 in Trench 2 at 370 cmbd



Figure 5-23. EU 3 in Trench 3 at 330 cmbd Prior to Backfilling Trench

5.2.1 Soils and Stratigraphy

As a result of the systematic deep augering conducted along the northern margin of Marymoor Park, seven sedimentary strata were defined (see Section 5.1). Strata numbers in trenches and excavation units were assigned based on their vertical position and with reference to the strata encountered during systematic deep augering. The strata encountered during the trench (overburden removal) and unit excavations were generally consistent with those identified during augering, but much more detail and subdivision of stratigraphic deposits was possible, given the larger exposures. The seven strata identified during the augering were used as a guide for labeling strata during the trench and unit excavations, with subdivisions labeled using small-case letters after the Arabic number designation.

Stratigraphic profiles encountered within the backhoe trenches and excavation units varied between the locations, with the westernmost excavations, Trench 2/EU 2, revealing the most complete, least disturbed sedimentary profile. This trench and excavation unit are described and illustrated below. Following this information, the remaining two trenches and associated excavation units are described with reference to how they compare to the Trench 2/EU 2 deposits.

5.2.1.1 Trench 2 Stratigraphy

The upper 120 centimeters of sediment excavated within Trench 2 consisted of what appeared to be redeposited materials (Figure 5-24). The upper 50 centimeters included very poorly sorted silty fine to coarse sand that included approximately 20 percent rounded to subrounded gravels and cobbles.

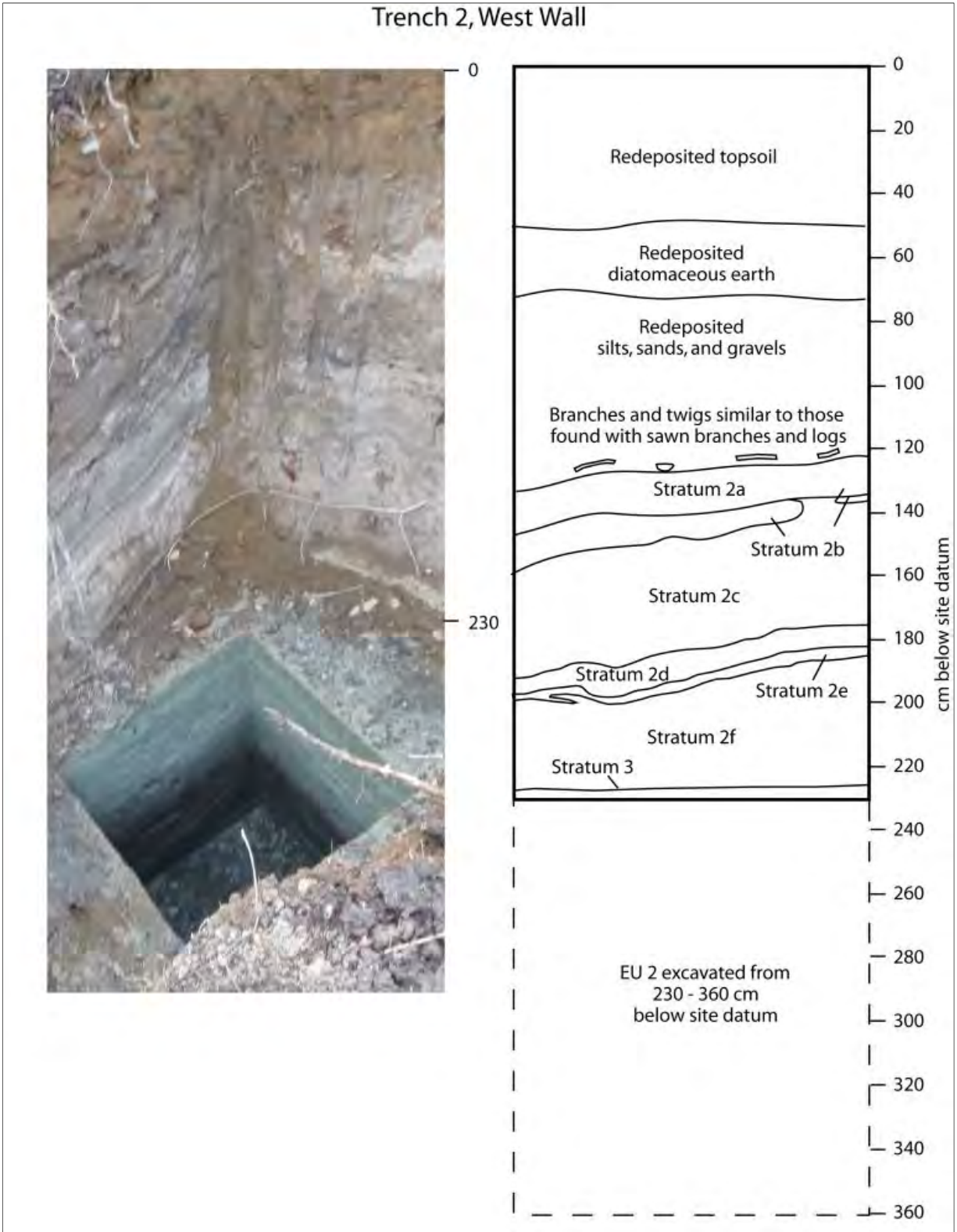


Figure 5-24. Stratigraphic Photograph and Profile of the West Wall of Trench 1

Below this, between approximately 50 and 70 cmbd, the sediment became much lighter colored, finer-grained, and finely laminated, consistent with diatomaceous earth; this material was found in a relatively cohesive layer, although pockets of brown sandy sediment and gravelly sands were also intermixed. Between 70 and 120 cmbd, the sediment was once again very poorly sorted silty sands with common cobbles and gravels throughout.

At approximately 120 to 130 cmbd, this sediment became mixed with common branches and twigs. This gravelly silty sand deposit containing these woody debris was found in Trenches 1 and 3, as well, although in those trenches, the materials were found at greater depths below the surface, and the woody debris included much larger logs and large branches. Of note, the large logs and branches encountered in Trenches 1 and 3 displayed sawn ends (Figure 5-25). Given this information, the deposits above this layer containing woody debris were interpreted to represent redeposited fill.

Below the redeposited fill materials, Trench 2 contained a series of fine-grained, apparently intact deposits that appear to represent slackwater materials and diatomaceous earth (Strata 2a through 2f). This material was consistent with Hodges et al.'s (2016:89–90) Stratum II encountered at the Bear Creek Site. These materials were removed using the backhoe to reveal intact Stratum 3 deposits, which were excavated as part of EU 2.



Figure 5-25. Sawn Log from Trench 1

5.2.1.2 EU 2 Stratigraphy

All of the strata encountered in EU 2 appeared intact and undisturbed by modern or historic activities. These strata are described below and depicted in Figures 5-26 and 5-27.

Stratum 3: Dark greenish gray (Gley 1 4/10GY) silty clay; in upper portion of stratum, common prominent strong brown (7.5YR 4/6) iron oxide staining along ped faces (aggregates of soil particles formed by pedogenic processes) and within root casts; very coarse to coarse, strong prismatic structure; sticky, plastic, very hard; thin lenses and mottles of lighter colored, silt-sized ashy? sediment common at transition between Strata 3 and 3a.

Stratum 3a: Dark greenish gray (Gley 1 4/5GY) silty very fine sand in thin (~1–3 millimeters thick) laminae; common dark yellowish brown (10YR 4/6) iron oxide staining along root casts and ped faces; weak, medium subangular blocky structure; slightly sticky, slightly plastic, soft; very abrupt, smooth lower boundary.

Stratum 3b: Greenish gray (Gley 1 5/10Y) clayey silt; common faint dark yellowish brown (10YR 4/4) iron oxide staining along root casts; very thin (~1 mm) laminae; weak, medium subangular blocky structure; slightly sticky, slightly plastic, soft; lower boundary is abrupt and irregular into underlying sediment (root casts).

Stratum 4f: Very dark grayish brown (10YR 3/2) to dark brown (10YR 3/3) 1- to 2-centimeter layers of silty very fine sand to very fine sandy silt; upon exposure to air, sediment becomes dark gray (10YR 3/1); thick, moderate platy structure; slightly sticky, slightly plastic, soft; common organics throughout, some in thin peaty layers; many leaves and twigs oriented horizontally along ped faces.

Stratum 5a: Dark greenish gray (Gley 1 3/10Y) well sorted very fine to fine sands; generally deposited as 2- to 4-centimeter-thick layer interbedded with Strata 4f and 5b sediments.

Stratum 5b: Very dark gray (2.5Y 3/1) silty fine sand; massive; non-sticky, non-plastic, soft; common organic matter throughout.

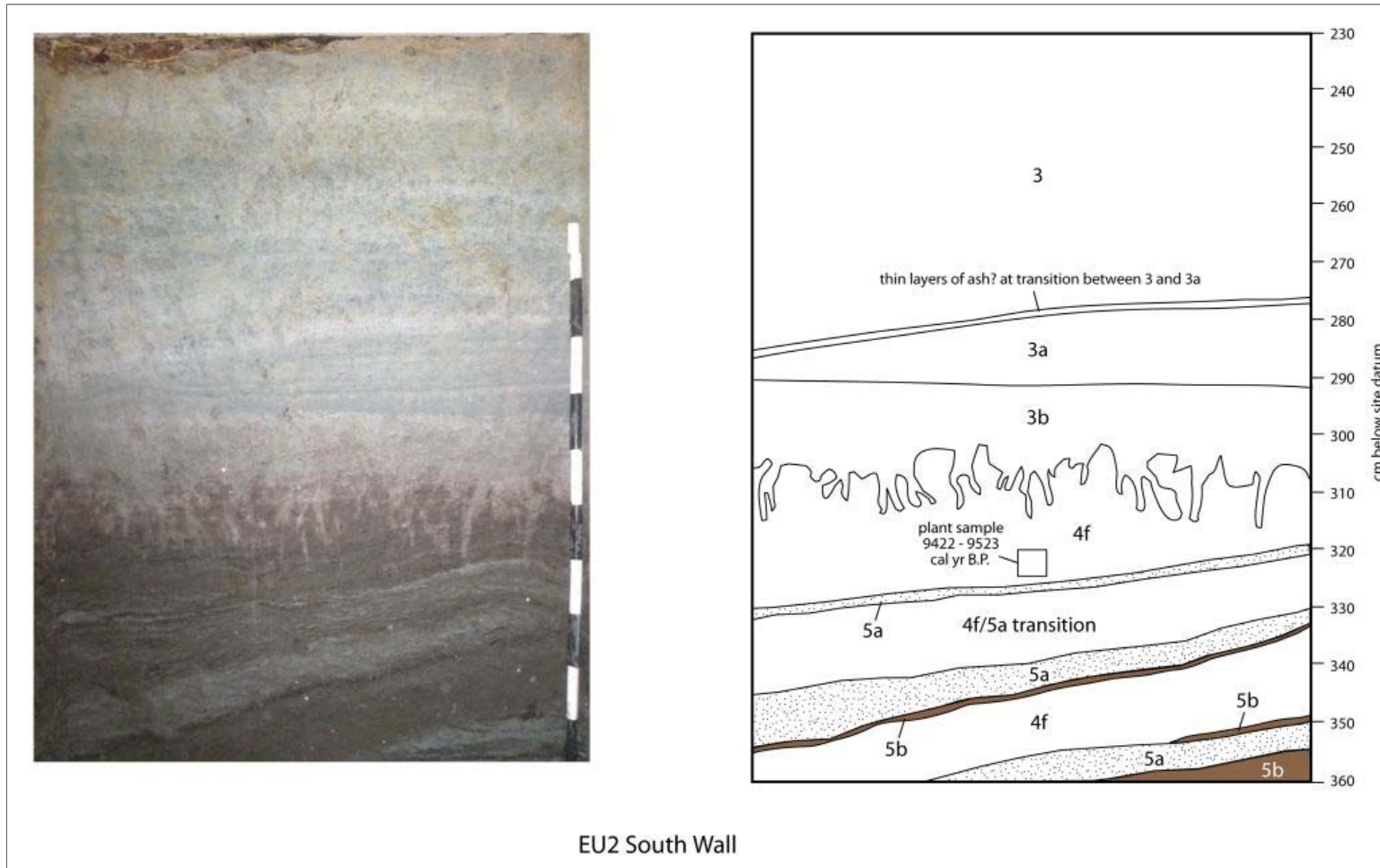


Figure 5-26. Stratigraphic Photograph and Profile of the South Wall of EU 2

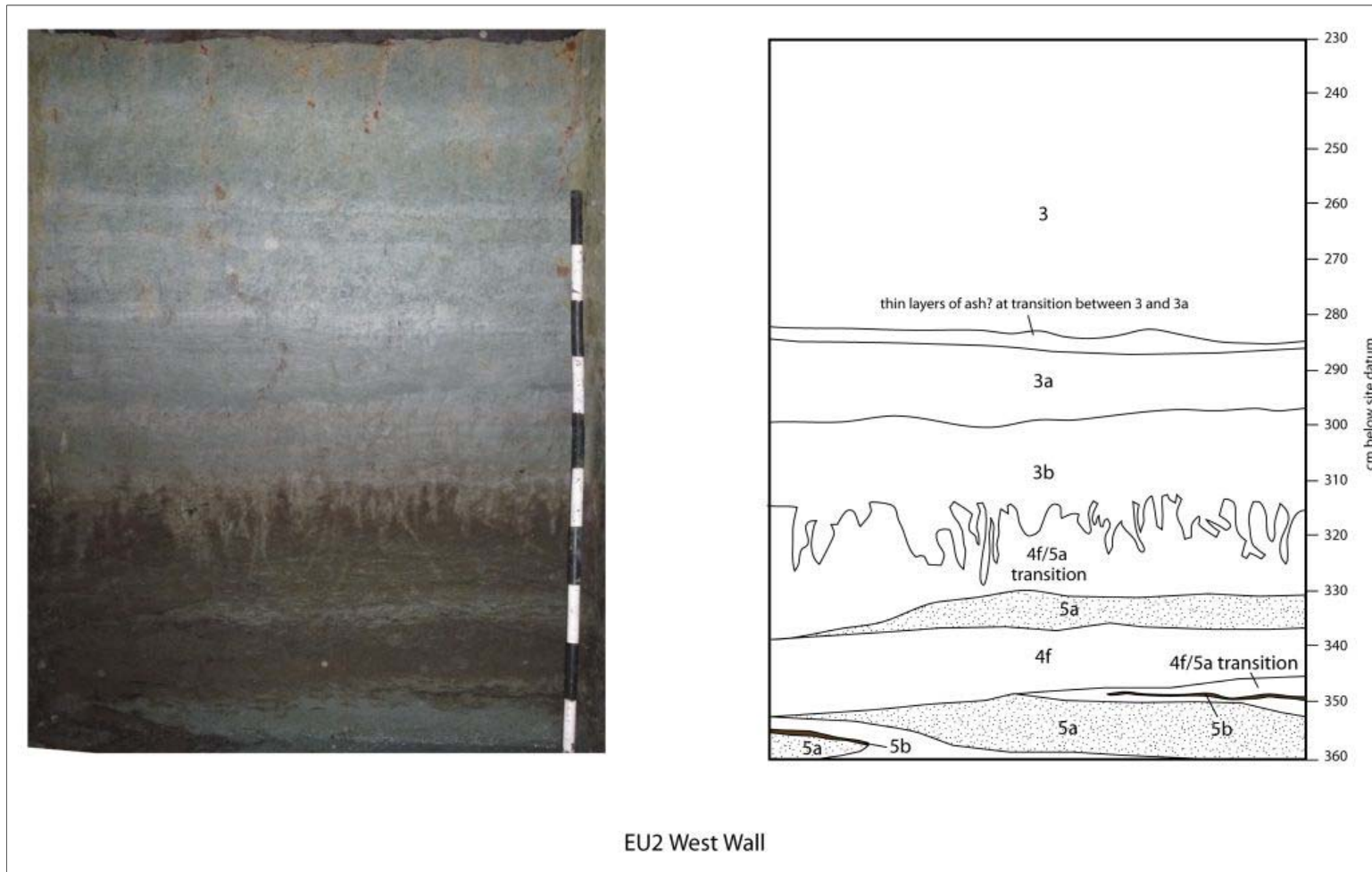


Figure 5-27. Stratigraphic Photograph and Profile of the West Wall of EU 2

EU 2 Stratigraphic Interpretation

Stratum 3 encountered in EU 2 likely correlates to Hodges et al.'s (2016:79) Stratum IV (sand beds and laminated silt-sand couplets), which is interpreted as alluvial deposits associated with the ancestral Sammamish River. Stratum 3a appears to be consistent with Hodges et al.'s (2016:73–76) Stratum Va deposits, which are characterized by the presence of Mount Mazama ash at their contact with overlying Stratum III sediments, and include well-laminated clay, silt, diatomaceous earth, and carbonaceous materials consistent with slackwater alluvial deposition.

While Stratum 3b in EU 2 displays little evidence of soil formation upon visual inspection, the weak soil structure, accumulation of iron oxide, and evidence of root casts at its lower boundary suggest the landform at this location may have once represented a lakeside or streamside landscape, similar to Hodges et al.'s (2016:76) Stratum Vb. While Stratum Vb at the Bear Creek Site was often expressed as a peaty deposit, the Stratum 3b deposit did not contain notable organic content, indicating more oxygenizing conditions than those present at the Bear Creek Site.

Stratum 4f is located stratigraphically at the position of Hodges et al.'s (2016:74) Stratum Vc, the thin, artifact-bearing stratum of the Bear Creek Site. The Stratum Vc materials were interpreted to represent upland, nearshore deposits. In contrast, the organic-rich, bedded sandy silt, silty sand, and peaty deposits of Stratum 4f are more consistent with a wetland setting that incurred occasional flooding and deposition of relatively coarser-grained alluvium. Strata 5a and 5b, which appear to represent interbedded stream and organic-rich wetland deposits, are also not correlative to deposits found at the Bear Creek Site. Strata 4f, 5a, and 5b in EU 2 may denote in-channel and channel margin deposits of the paleo-Sammamish River. Based on the results of deep auger testing, it appears that Strata 5a and 5b deposits directly overlie glacial materials. If this is the case, then the Strata 4f, 5a, and 5b alluvial deposits may represent the stream and stream margin that Hodges et al. (2016:74) suggest existed adjacent to the Bear Creek Site at the time of its occupation. If this is the case, then it is unlikely that archaeological materials associated with the occupation of the Bear Creek Site are present in this area of the landscape, which would have represented a channel or wetland at that time.

5.2.1.3 Trench 1 Stratigraphy

Like Trench 2, the upper section of Trench 1 contained redeposited materials (Figure 5-28). These materials occurred in the same stratigraphic order as Trench 2, but were thicker and extended to a greater depth. The woody debris deposit, including sawn logs and branches, was encountered between approximately 180 and 230 cmbd, as opposed to the same deposit that was at a depth of 120 to 130 cmbd in Trench 2.

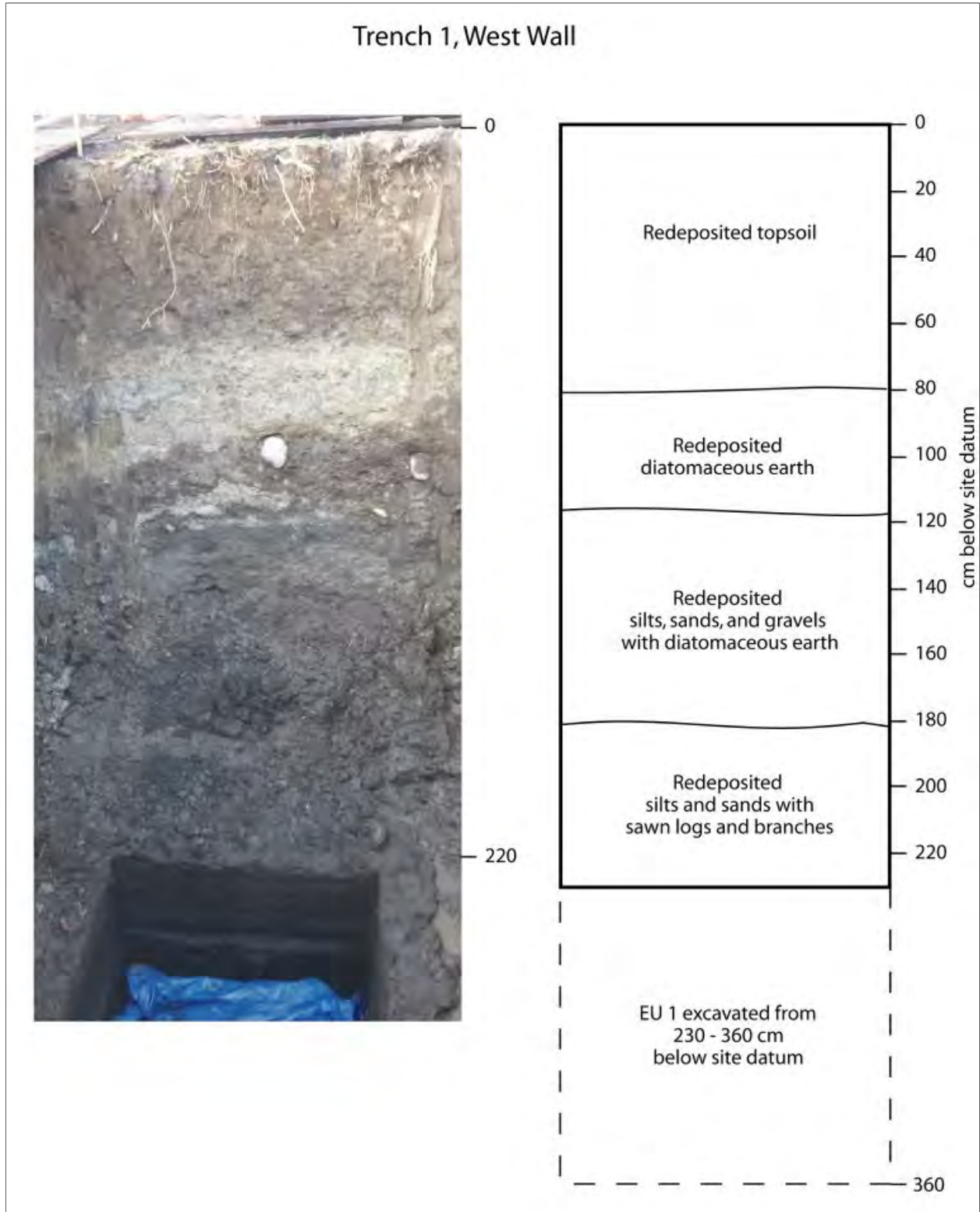


Figure 5-28. Stratigraphic Photograph and Profile of Trench 1

5.2.1.4 EU 1 Stratigraphy

Excavation of EU 1 was initiated just below the woody debris deposit at 230 cmbd. Once the excavation reached 320 cmbd, EU 1 was covered and the trench was extended to that depth with a backhoe. The EU then continued to 360 cmbd. Sedimentary strata encountered in EU 1 are described below and depicted in Figures 5-29 and 5-30.

Stratum 4: Very dark grayish brown (10YR 3/2) very fine sandy silt; medium to thick, moderate platy structure; common roots and filmy fibers run parallel to horizontal ped faces; abrupt, smooth lower boundary.

Stratum 4c: Dark greenish gray (Gley 1 3/10Y) well sorted very fine sand; massive; discontinuous layer.

Stratum 4d: Very dark gray (2.5Y 3/2) fibrous peat, common woody debris and plant material; mineral sediment (very fine sand and silt) represents approximately 30 percent of matrix; discontinuous layer.

Stratum 4e: Dark greenish gray (Gley 1 4/10Y) clayey silt; very finely laminated; discontinuous layer.

Stratum 4f: Very dark grayish brown (10YR 3/2) very fine sandy silt; medium to thick, weak platy structure; common roots and filmy fibers run parallel to horizontal ped faces; few (1 to 2 percent) well-rounded gravels less than 1 centimeter in diameter; common discontinuous pockets of fine to medium sands and peaty organics; very abrupt lower boundary.

Stratum 5a: Dark greenish gray (Gley 1 4/5GY) layers of fine to medium sand and medium to coarse sand; few small pebbles (up to 2 millimeters in diameter); non-sticky, non-plastic, soft; interbedded with Stratum 5b material.

Stratum 5b: Very dark gray (2.5Y 3/1) silty fine sand; massive; non-sticky, non-plastic, soft; common organic matter throughout.

EU 1 Stratigraphic Interpretation

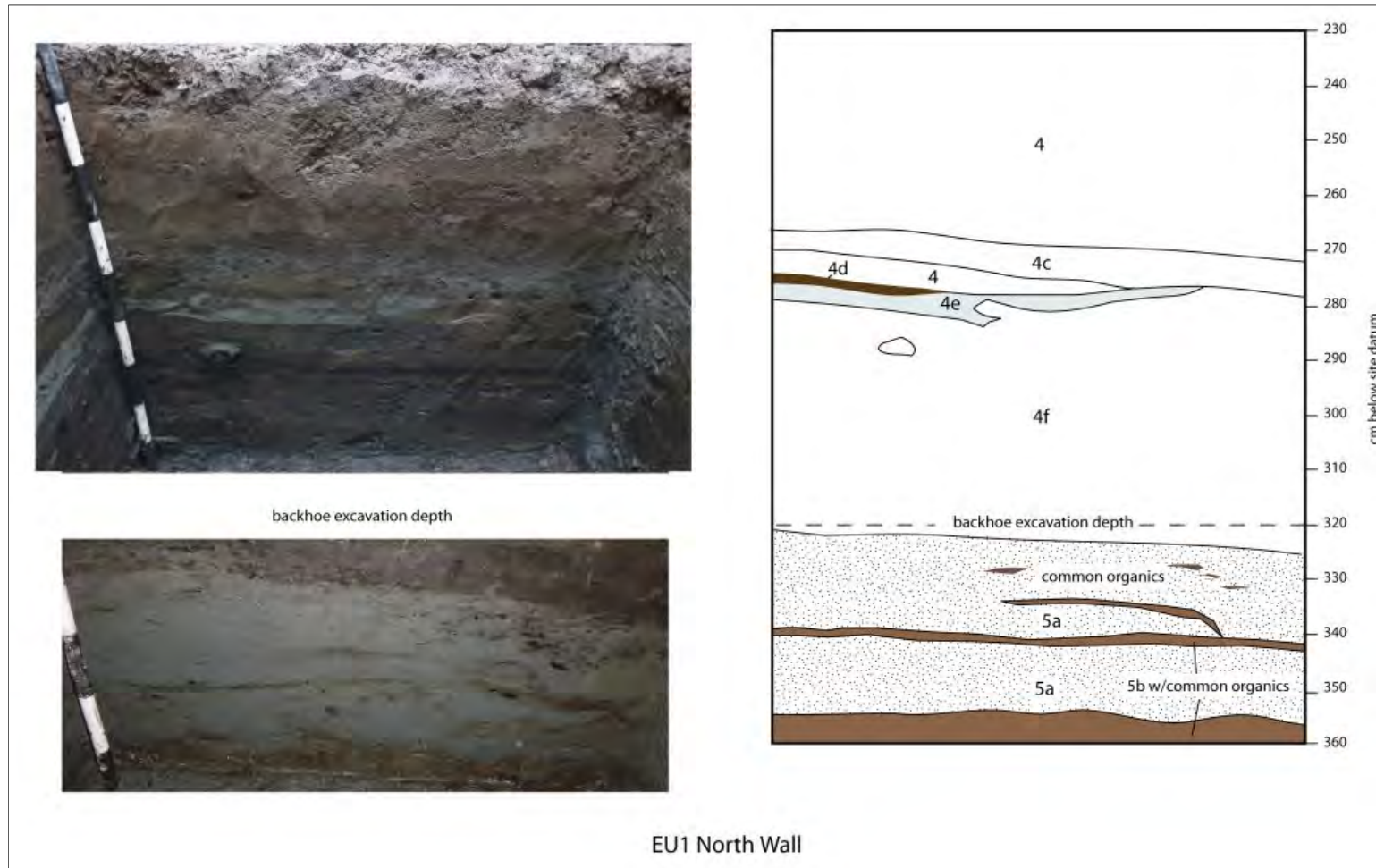
Sedimentary deposits encountered in EU 1 were very different from those noted in EU 2. For example, EU 1 contained none of the Strata 3/3a/3b deposits found in EU 2. Instead, EU 1 displayed a thick, organic-rich, platy, very fine sandy silt deposit (Stratum 4) overlying a series of relatively thin, discontinuous layers of sands, peat, and gleyed silty clay (Strata 4c, 4d, and 4e).

Stratum 4f was noted in EU 1, but its appearance was markedly different. Within EU 2, Stratum 4f was generally composed of easily discernible, thin layers of sandy silts, silty sands, and organics (see Figure 5-26). In EU 1, the same types of materials were present, but they were encountered in thin, discontinuous pockets (see Figure 5-30). Also of note, the transition from Stratum 4f to Strata 5a/5b deposits in EU 2 was gradual and included interlayering of strata, while this transition in EU 1 was very abrupt and erosional in nature. Based on these attributes, Stratum 4f in EU 1 does not appear to represent intact, in situ deposits.

Strata 5a and 5b in EU 1 were similar to the 5a and 5b deposits found in EU2, but the sediment matrix was more well-sorted and coarser-grained. They appear to represent intact, bedded alluvial deposits.

5.2.1.5 Trench 3 Stratigraphy

The stratigraphy in the upper 210 centimeters of Trench 3 very closely resembled that of Trench 1, with the woody debris deposit of sawn logs and branches present from 190 to 210 cmbd (Figure 5-31). At the base of the trench, Stratum 3 material was encountered, which is a massive, well-sorted medium to coarse sand that likely represents an alluvial channel deposit.



EU1 North Wall

Figure 5-29. Stratigraphic Photograph and Profile of the North Wall of EU 1

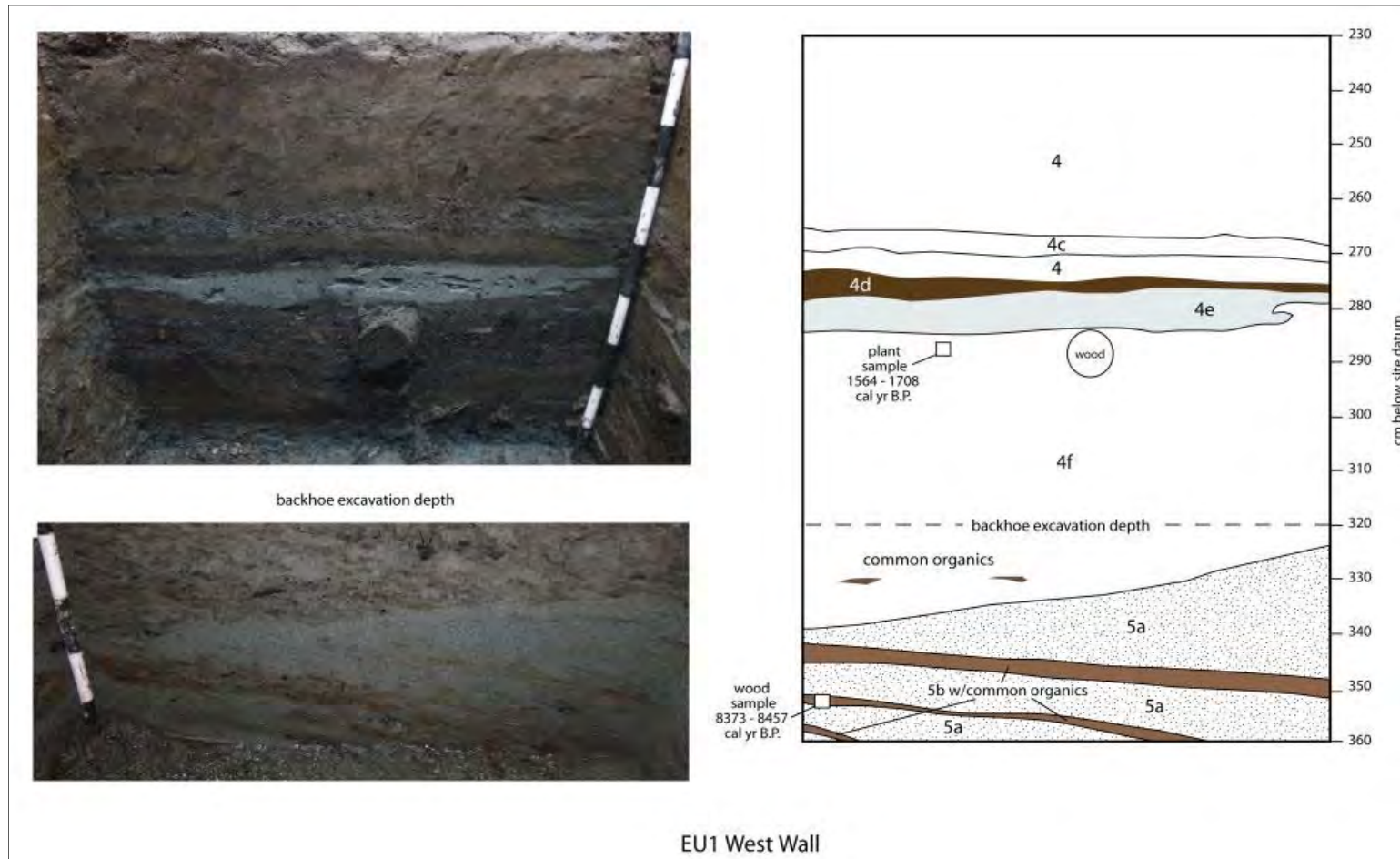


Figure 5-30. Stratigraphic Photograph and Profile of the West Wall of EU 1

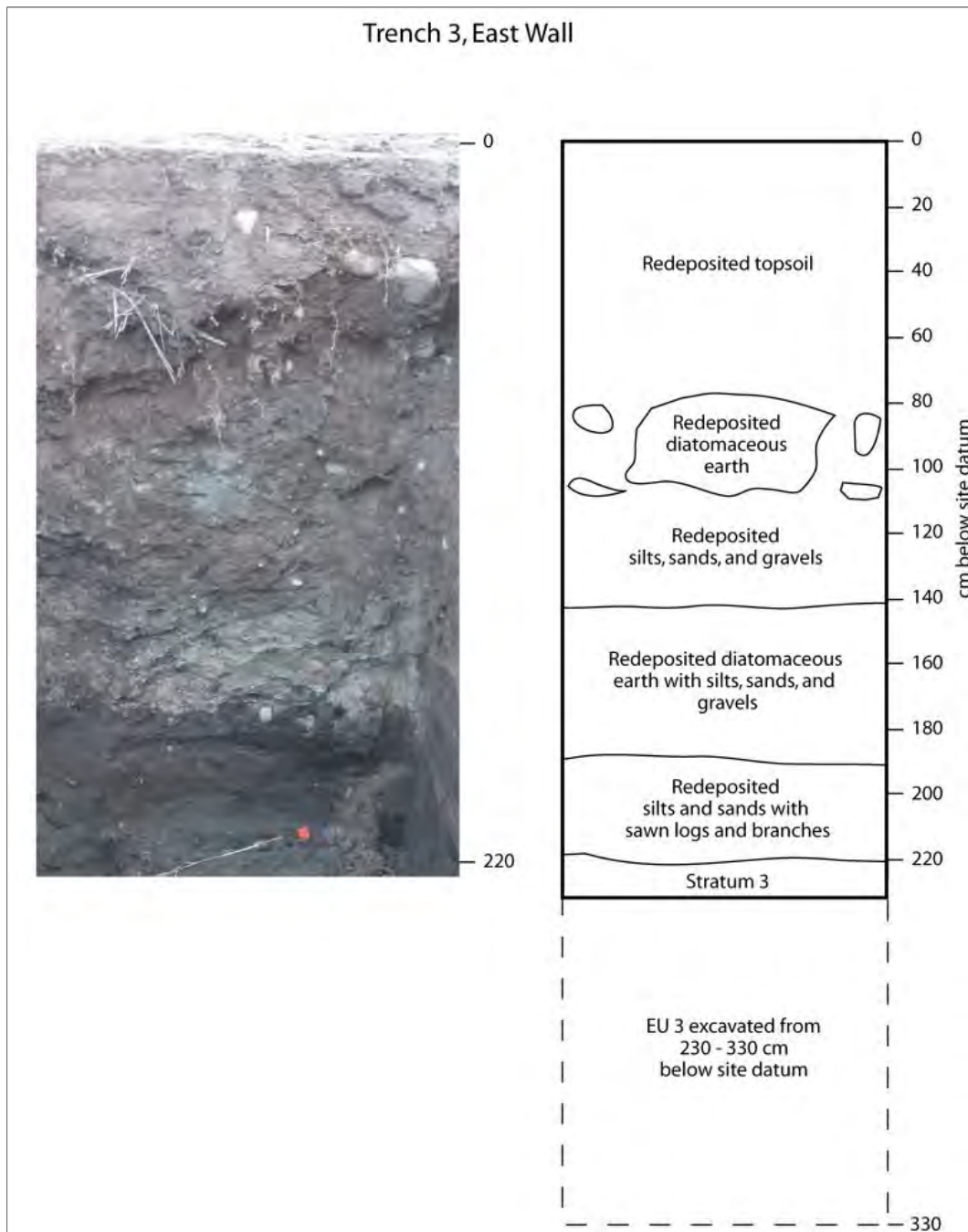


Figure 5-31. Stratigraphic Photograph and Profile of Trench 3

5.2.1.6 EU 3 Stratigraphy and Stratigraphic Interpretation

Strata in EU 3 were very similar to the strata encountered in EU 1 (Figures 5-32 and 5-33), with the exception that Stratum 4f was not present. Instead, the Stratum 4d peat deposit directly overlies Strata 5a and 5b materials. Like EU 1, the Strata 5a and 5b materials appear in discrete, intact layers that suggest they are undisturbed in an in situ alluvial channel with channel margin deposits.

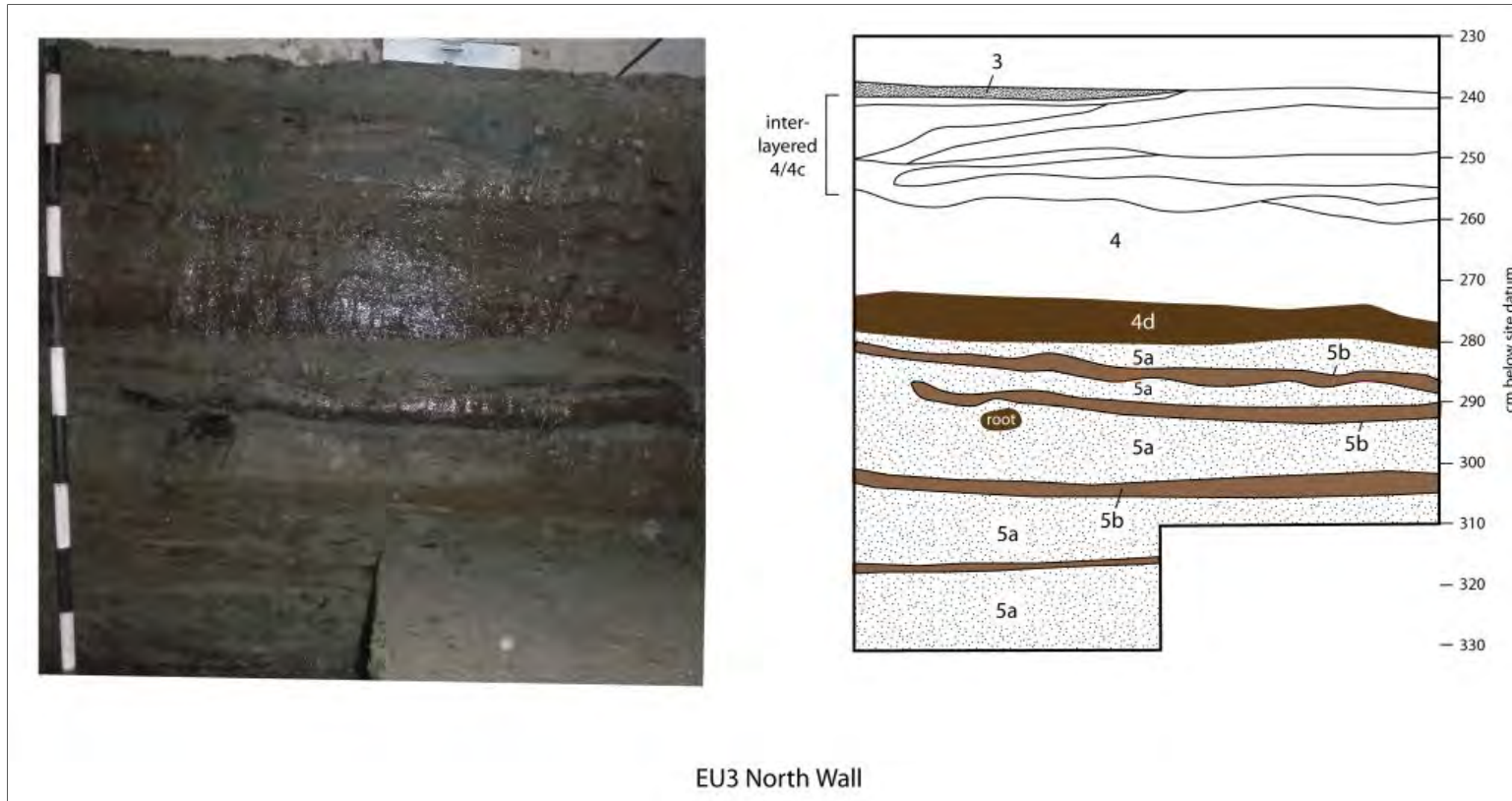


Figure 5-32. Stratigraphic Photograph and Profile of the North Wall of EU 3

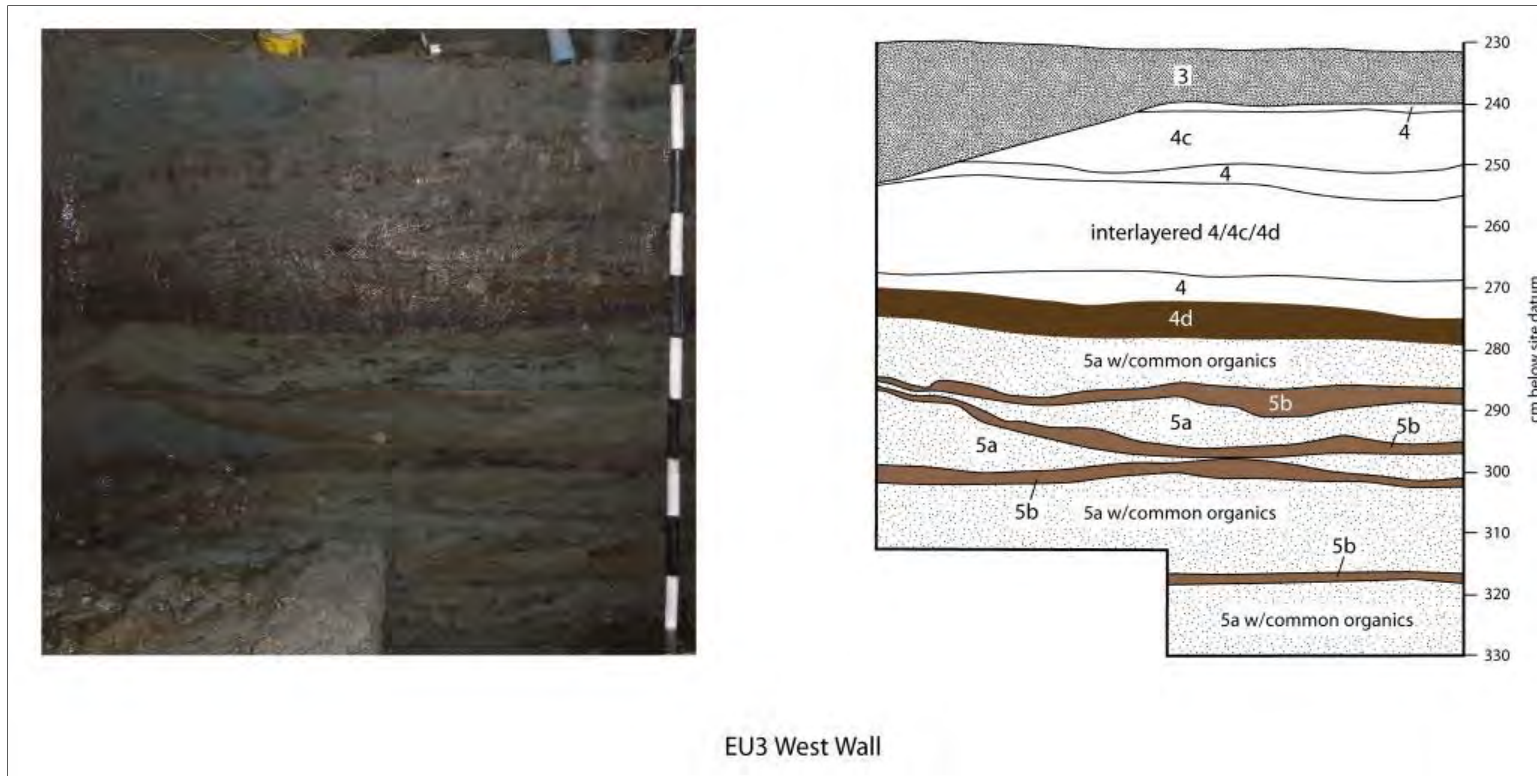


Figure 5-33. Stratigraphic Photograph and Profile of the West Wall of EU 3

5.2.2 Lithic Analysis

Six pieces of lithic debitage and one milk glass flake were recovered from Auger 1 and the EU excavations (Figures 5-34 and 5-35). The additional finds, beyond the initial artifact designated as 2646-1, meets the state's definition of a "site" and DAHP assigned the site the Smithsonian trinomial designation 45KI1365. Provenience and basic descriptive attributes for each piece of debitage are listed in Table 5-4. Five pieces of lithic debitage were distributed between 280 and 360 cmbd in EU 1, representing recoveries from Strata 4e, 4f, 5a/4f, and 5a-SE ¼. Stratum 5a-SE ¼ represents a portion of EU 1 that was compromised after the backhoe excavation extended the trench depth to 320 cmbd. That portion of the unit was impacted slightly by the backhoe. One additional piece of debitage was recovered during the initial auger excavations from a depth of approximately 280–300 cmbs in Auger 1, corresponding to Stratum 4f or 5a/4f. Stratum 5a/4f (310–340 cmbd) in EU 1 yielded two pieces of debitage and the milk glass flake, while Strata 4e, 4f, and 5a-SE ¼ yielded one piece of debitage each.

Five of the six pieces of lithic debitage were made of CCS; the remaining one was a dark gray, fine-grained material, probably metasediment; the grainy structure observed under low-powered (up to 90x) microscopic examination suggests it is probably metasedimentary rather than crystalline volcanic (e.g., basalt). All the CCS is chalcedony, including three that are translucent gray and two nearly opaque white. One of the white chalcedony flakes exhibits a small amount of orange coloration, and both have areas of light yellow coloration. Based on distinctive physical qualities and color patterns of the lithic materials, the six pieces of lithic debitage may represent only three reduction events—one represented by the single flake of fine-grained metasediment, a second by the two white CCS flakes, and a third by the three translucent gray pieces of CCS debitage.

The six pieces of lithic debitage were analyzed toward a basic understanding of the lithic reduction technologies represented by the small assemblage using independent attributes and a technological typology adapted from Root (2004). The lithic assemblage includes five flakes and one piece of shatter. The two white CCS flakes include a complete pressure flake and a technologically undiagnostic flake fragment, possibly also a pressure flake. The complete pressure flake retains a biface edge adjacent to the platform suggesting it was detached during biface shaping. The gray CCS debitage includes two small, thin, technologically undiagnostic flake fragments and a larger piece of blocky shatter. The shatter is probably a product of percussion core reduction, possibly using the bipolar technique. The metasediment flake is a complete percussion edging flake. All the debitage is interior; none exhibits cortex; and none of the debitage exhibits evidence of heat treatment or heat damage.

All the flakes are small, falling into Size Grade 1-cm. The gray CCS shatter is by far the largest item, falling into Size Grade 3-cm. The two gray CCS flakes and the metasediment flake weigh 0.03 grams, while the two white CCS flakes are smaller, weighing < 0.01 gram; the gray CCS shatter far outweighs the others at 2.14 grams.

The milk glass flake has a flat surface that reflects light like a mirror under the microscope. Two perfectly parallel microscopic lines or thin, shallow grooves cross the flat surface. The precision (regularity and smoothness) of the lines indicates they are mechanically produced. The flat surface is underlain by a translucent blue band with an abrupt boundary to a more opaque, milky white interior. It is a small, technologically undiagnostic distal flake fragment with four multidirectional dorsal flake scars. It falls within Size Grade 1-cm and weighs less than 0.01 gram.



Figure 5-34. Flake from Auger 1 (far left) and Five Pieces of Debitage Identified in EU 1



Figure 5-35. Milk Glass Fragment Identified in EU 1 (Scale is in Centimeters)

Table 5-4. Provenience Information and Technological Attributes of Debitage Recovered from Site 45KI1365

Lot	Cat	Provenience	Depth (cmbd)	Stratum	Size Grade	Weight (gram)	Completeness	Material Type	Material Type 2	Material Description	Debitage Type	Debitage Basic Technology	Platform	Flake Stage	Dorsal Scar Count	Bulb of Force	Post Depositional Damage	Comments
1	1	Auger 1	290-310	5a/4f/4e	3	2.14	Shatter	CCS	Chalcedony	Cloudy gray	Shatter	Percussion (bipolar?)	Collapsed?	Interior	—	—	Intermittent microflaking and crushing	Multifaceted, blocky, with ventral scar remnant and strong compression rings; possibly same material as Lot 5, Category (Cat) 7 and Lot 11, Cat 14
2	2	EU 1	280-290	4e	1	0.03	Complete	Fine-grained other	Probably meta-sedimentary	Dark gray	Edging	Percussion	Collapsed	Interior	3	Diffuse	None	Possibly imported gravel aggregate
3	3	EU 1	310-320	4f	1	<0.01	Fragment	CCS	Chalcedony	Cloudy white	Unknown	Undiagnostic (Pressure?)	—	Interior	2	—	None	One longitudinal arris; microcrystals inclusion on lateral margin; cloudy white with small amount of yellow and orange coloration; possibly same material as Lot 4, Cat 5
4	6	EU 1	310-320	5a/4f	1	<0.01	Complete	CCS	Chalcedony	Cloudy white	Early pressure	Pressure	One facet	Interior	3	Pronounced	Intermittent microflaking	Cloudy white with slight yellow hue; longitudinal curve; retains biface edge on portion of platform; possibly same material as Lot 3, Cat 3
5	7	EU 1	330-340	5a/4f	1	0.03	Fragment	CCS	Chalcedony	Cloudy gray	Unknown	Undiagnostic	—	Interior	2	—	Microflaking and crushing on edges	Possibly same material as Lot 1, Cat 1 and Lot 11, Cat 14
5	7	EU 1	330-340	5a/4f	1	<0.01	Fragment	Glass	Milk glass	Cloudy white with clear blue	Unknown	Undiagnostic	—	Interior	4	—	Microflaking and crushing on edges	A pair of narrow linear lines/grooves oriented longitudinally across flat surface are perfectly straight and regular/smooth indicating machine precision
11	14	EU 1	350-360	5a-SE ¼	1	0.03	Fragment	CCS	Chalcedony	Cloudy gray	Unknown	Undiagnostic	—	Interior	3	—	Microflaking and crescent snaps along margin	Possibly same material as Lot 1, Cat 1 and Lot 5, Cat 7

As mentioned above, all three gray chalcedony items, one shatter and two technologically undiagnostic flake fragments, exhibit visually comparable material characteristics. Their similarity suggests they may be from the same nodule or source material, and may represent a single reduction event. Technological attributes of the shatter suggest the gray CCS debitage may represent a core reduction event. Likewise, the two white CCS flakes may represent a single biface-shaping reduction event.

The three gray CCS debitage is associated with Strata 4f and 5a. One flake is from Strata 5a/4f at 330–340 cmbd; the other is from Stratum 5a/SE ¼ (compromised by backhoe) at 350–360 cmbd; and the shatter is either from Stratum 4f or Strata 5a/4f at a shallower depth (290–310 cmbd) than the flakes. Stratigraphically associated with the gray CCS debitage, the milk glass flake and one of the white chalcedony flakes are from Strata 5a/4f, while the other white chalcedony flake is from Stratum 4f. The remaining debitage, a percussion edging flake of fine-grained metasediment, is from Stratum 4e (280–290 cmbd)—the shallowest context included in the analyzed assemblage, and the only debitage from the stratum.

The small assemblage with a paucity of technologically diagnostic debitage precludes detailed interpretations about technology and its association with a particular time period. Generally, the debitage appears to be derived from a mix of percussion core reduction, represented by a piece of gray CCS shatter, and pressure flaking, represented by one white CCS pressure flake. The other white CCS flake, an undiagnostic flake fragment, is also plausibly a pressure flake but does not exhibit attributes particularly diagnostic of this technology. The single fine-grained metasediment flake is representative of percussion flaking. Geomorphic evidence and presence of a milk glass flake in Strata 5a/4f suggests the debitage-bearing sediments may be disturbed and in secondary context. The possibility that the five CCS flakes represent only two reduction events suggests if disturbed, the original cultural deposit may have contained a limited number of lithic reduction events.

5.2.2.1 Comparison with the Bear Creek Site (45KI839)

A comparison of the 45KI1365 assemblage with other sites is severely hampered by the small lithic assemblage. Bear Creek (45KI839) is the nearest site to 45KI1365. Two components were identified at that site. The older of these was designated Stratum Vc and the younger one Stratum III. Stratum Vc was identified as an intact Late Pleistocene/Early Holocene component, while Stratum III appears to date to the Middle Holocene and may represent a secondary deposit with a mix of Late Pleistocene/Early Holocene artifacts (Paleoarchaic) and Middle Holocene Olcott phase artifacts (Kopperl 2016; Taylor and Beck 2016).

Raw material proportions vary considerably between the two Bear Creek components, and these in turn vary from the 45KI1365 assemblage. While CCS represents 83 percent (n = 5 of 6 debitage) of the 45KI1365 assemblage, at Bear Creek CCS only represents 14 percent of the Stratum Vc assemblage and only 2 percent of the Stratum III assemblage (Taylor and Beck 2016). Other materials predominate in both components at Bear Creek, mainly various metasedimentary and volcanic rocks; only one flake of these material types was recovered from Site 45KI1365. Moreover, red chert is the most common CCS represented in the intact Stratum Vc assemblage at Bear Creek (71.7 percent of CCS) but is absent from the 45KI1365 sample; Stratum III is more evenly distributed between CCS color hues, but as mentioned above, the proportional representation of CCS is much lower.

The comparison between site assemblages is somewhat biased due to differences in screen size used for sampling at the two sites. While ⅛-inch mesh was used to sample all EU sediments at Site 45KI1365, Bear Creek was sampled using primarily ¼-inch mesh with a much lower percentage using ⅛-inch screen. Notably, all debitage from Site 45KI1365, except for the piece of shatter, would have fallen through

¼-inch mesh screen. Based on count and weight ratios, average CCS flake size in the Bear Creek sample is smaller than other material types. This suggests CCS is likely to be under-represented as compared to the 45KI1365 assemblage as a result of differences in sampling methodology (screen size). Nevertheless, the inclusion of a CCS sample from sediments sampled using only ¼-inch screen is unlikely to increase counts to the point of exceeding the other materials anywhere close to the percentage represented at Site 45KI1365.

Spatial variability in the proportional distribution of CCS in Stratum Vc at Bear Creek was identified as statistically significant, and the high proportion of CCS at 45KI1365 potentially represents such spatial variability within a larger site. Despite this caveat, the difference in overall raw material proportions suggests the 45KI1365 and Bear Creek assemblages likely represent different uses of toolstone and therefore different occupation events. In general, small flakes falling into Size Grade 1-cm are most common in the CCS assemblages at both sites. The paucity of technologically diagnostic debitage and platform attributes in the 45KI1365 debitage assemblage precludes a meaningful comparison of lithic technologies between site assemblages.

The later component at Bear Creek, Stratum III, had a much lower proportion of CCS than Stratum Vc. Taylor and Beck (2016) proposed two alternative explanations for the difference: (1) a bias caused by size sorting due to post-depositional processes removing small flakes, or (2) a component that is predominantly an Olcott period (Middle Holocene/Archaic) occupation. Supporting the latter, Olcott assemblages tend to have low proportions of CCS and concomitantly high proportions of non-CCS material types such as crystalline volcanic and metasedimentary toolstones relative to earlier and later components (Kopperl 2016; Taylor and Beck 2016). Additionally, foliate points consistent with Olcott phase assemblages were identified in disturbed contexts at Bear Creek.

5.2.3 Faunal Analysis

A single faunal specimen was found in EU 1 between 310 and 320 cmbd. The specimen was identified as a fragment of a sea urchin (*Strongylocentrotus* spp.) (Figure 5-36). The fragment is a portion of an exterior plate that exhibits morphological characteristics unique to this genus, but the coloration necessary for species-level identification was not visible. The specimen does not exhibit any signs of thermal alteration or intentional breakage. The specimen was examined under an Omano OM2300 7x-45x trinocular boom microscope, and the specimen margins were rounded and not sharp, suggesting water rolling. Sea urchin only inhabit marine environments, and no freshwater adaptations are known (Kozloff 1987).



Figure 5-36. Sea Urchin Fragment Identified in EU 1

5.2.4 Radiocarbon Analysis

Three samples were submitted for accelerator mass spectrometry dating (Attachment D.5). Two samples were submitted from EU 1 and one sample was submitted from EU 2. Each of the samples was organic material collected in situ during the excavations. The samples were selected to date the various strata represented within the site (EU 1) and outside of the site (EU 2). The results are also presented in calibrated and uncalibrated years before present (B.P.) in Table 5-5 and in Figures 5-26 and 5-30.

Table 5-5. Provenience and Results of Radiocarbon Analysis.

Lot, Cat	Beta Sample Number	Provenience	Stratum	Uncalibrated Years B.P.	Calibrated Years B.P.
8, 11	483851	EU 1	4f	1730 ± 30	1564 to 1708
9, 12	481964	EU 1	5b	7620 ± 30	8373 to 8457 8501 to 8505
21, 24	483852	EU 2	4f	8430 ± 30	9422 to 9523

5.2.5 Site Interpretation

Archaeological excavations [redacted] revealed deep fill and natural deposits in the vicinity of a previously identified artifact within a deep auger test. Of the three backhoe trenches and associated units excavated in the vicinity of the find, the westernmost trench and excavation unit (Trench 2/EU 2) revealed the most complete intact stratigraphic profile of the three trenches.

Approximately 120 centimeters of fill and redeposited material was encountered in Trench 2 overlying intact slackwater silts, sands, and diatomaceous earth. Near the base of the fill in this trench, as well as in Trenches 1 and 3, were woody debris that included sawn branches and logs. It is not known if the fill

and woody debris is modern or historic in age, but historic maps of the project area provide some clues regarding at least two landscape modifications that have occurred in the past.

Prior to the construction of the Hiram M. Chittenden Locks (Ballard Locks) and the lowering of Lake Washington around 1916, the Sammamish River Valley would have been swampy, with large areas of peat and diatomaceous earth present within the floodplain (King County 2018b). Around this time (1912-1913), the U.S. Army Corps of Engineers produced a map of King County's Drainage District No. 3, which included the Sammamish River (Figure 5-37). This map shows the alignment of the Sammamish River at that time as east and south of the site.

It is not known exactly when the river was moved and straightened, but a 1950 U.S. Geological Survey quadrangle of the site area depicts the river along its current alignment, indicating that the straightening occurred prior to 1950 (U.S. Geological Survey 1950).

In the mid-1960s, portions of the previously meandering stream network of the river was channelized, dredged, and straightened as part of a flood control project completed by the U.S. Army Corps of Engineers (King County Flood Control District 2018). Dredging of the channel may have occurred in association with this activity. It is likely that the sawn branches and logs encountered during the backhoe excavations of the three trenches were cut during clearing activities associated with either the pre-1950 straightening of the river or the 1960s dredging activities.

Below the fill in Trench 2/EU 2, HRA encountered a series of relatively fine-grained alluvial deposits and wetland sediments similar to materials encountered at the Bear Creek Site directly overlying Hodges et al.'s (2016) Stratum Vc, which is the artifact-bearing layer. Unlike the Bear Creek Site, however, Trench 2 did not contain Stratum Vc materials. Instead, EU 2 contained a thick wetland deposit (Stratum 4f) underlain by a series of sandy channel deposits interlayered with lenses of organic-rich sediment (Strata 5a and 5b) below EU 2's sedimentary equivalent of Hodges et al.'s (2016) Stratum Vb. The wetland deposit likely formed after the initial occupation of the Bear Creek Site (10,000–12,000 B.P.), as indicated by a radiocarbon date on plant material from this sediment of 9422 to 9523 calibrated years B.P. (see Figure 5-26).

Based on the deep augering performed by HRA at the location, it appears that Strata 5a and 5b extend to the depth of underlying glacial materials. Based on this stratigraphic signature and the age of the overlying wetland sediment (Stratum 4f), the stream that deposited these Strata 5a and 5b deposits was likely present at this location at the time that the Bear Creek Site was occupied.

In contrast to Trench 2/EU 2, sediments encountered at both the Trench 1/EU 1 and Trench 3/EU 3 locations included much thicker fill deposits overlying sediment deposits, which is inconsistent with those seen in Trench 2/EU 2 or at the Bear Creek Site. Trench 1/EU 1, in particular, displayed a complex stratigraphic profile below the 230 centimeters of fill and woody debris.

FIGURE REDACTED

Figure 5-37. Drainage District No. 3 Map from 1912–1913 Showing Site 45K11365

The sediment deposits in the upper meter of EU 1 appeared in stratified layers, but the layers were thin and somewhat discontinuous (see Figure 5-30). While most of the artifacts found at the site were within the excavated levels that contained Strata 4f and 5a materials, it is not clear from which stratum they originated, because excavators were not able to isolate the two strata within the unit during excavation. An additional complicating factor is the presence of milk glass near the base of the unit within a level containing both Strata 4f and 5a materials. Radiocarbon analysis of material positioned stratigraphically above most of the cultural material, including the milk glass fragment, returned an age of 1564 to 1708 calibrated years B.P., suggesting the lithic artifacts and milk glass encountered in the unit are from a disturbed context.

The three most plausible explanations for the presence of milk glass and lithic artifacts at the depth at which they were found and their stratigraphic context (4f/5a transition) are: (1) bioturbation, (2) redeposition by stream action, and (3) redeposition during fill placement. The first explanation, bioturbation, is unlikely in this case given the paucity of root casts and complete lack of disturbance by animals noted during excavation.

It is more plausible that the artifacts were displaced to the location by stream action. EU 1 displayed similar alluvial channel sediments, Strata 5a and 5b, at the base of the unit to those encountered in EU 2. However, the EU 1 channel sediments were significantly coarser-grained and deposited in thicker beds. A date on a wood sample from these alluvial deposits indicates that a channel was present at this location between 8373 and 8457 calibrated years B.P. Given the deposit's elevation below the wetland deposit in EU 2 that dated to circa 9500 calibrated years B.P., it appears that a channel downcut into the Trench 1 (and likely Trench 3) area but did not encroach as far to the west as Trench 2.

The idea that a channel was previously present at the location of Trenches 1 and 3 is supported by the depth of fill material in these trenches. The over 2 meters of fill present in Trenches 1 and 3 versus the just over 1 meter of fill in Trench 2 suggests that prior to historic/modern infilling and leveling of the location, the location of Trenches 1 and 3 represented a topographic low, likely associated with a former alignment or side channel of the Sammamish River or Bear Creek.

It is possible that the lithic materials encountered in the Strata 4f/5a sediments were eroded from upstream and deposited at the location sometime in the past, perhaps around the time that the Stratum 5a, coarse-grained sandy alluvium was deposited, around 8,400 years ago. If this is the case, then the milk glass fragment would have to have been associated with the overlying Stratum 4f material, and the radiocarbon-dated plant material collected from above the milk glass fragment would have to be erroneous. The Bear Creek Site artifacts would have been present on Bear Creek upstream of the project location by 8,400 years ago; therefore, if upstream erosion of the site occurred, the small lithic materials found within EU 1 may have been carried downstream by Bear Creek and redeposited at the location. However, this does not seem to be the most plausible explanation.

It is more likely that the lithic materials were deposited at the EU 1 location as a result of channel dredging, straightening, and filling activities that occurred either in the early 1900s or in the 1960s, as discussed above.

It is expected that sediments excavated for the new channel would likely have been deposited in reverse order to their natural position; in other words, materials from the surface of the new channel area would be placed at the bottom of the topographic low, while sediments from the base of the new channel would be placed near the top of the topographic low, thus creating an upside-down stratigraphic profile.

If this is the case, then the materials found overlying the circa 8400-year-old alluvial channel deposits found in EU 1 (Strata 5a and 5b) should represent the former surface deposits [REDACTED]

[REDACTED] Given that the Sammamish River Valley was largely marsh or wetland prior to its draining, the sediments present on this landform were likely organic-rich, fine-grained marsh or wetland soils, which is consistent with the interpretation of the Stratum 4f sediments found near the base of the unit. Artifacts found in the 4f material, including the milk glass fragment, the sea urchin fragment, and possibly the lithic materials, would have originated from that former land surface.

If this reverse-stratigraphy hypothesis is valid, one would expect that older material would be found at shallower depths within the infilled unit. Given that the milk glass found at 330–340 cmbd represents either a historic-period or a modern surface, then the circa 1600-year-old plant materials from 280 to 290 cmbd would indeed be in reverse stratigraphic order.

Lithic analysis of the site supports the idea that the artifacts were not brought to the site as a result of alluvial redeposition. The debitage at 45K11365 does not exhibit obvious signs of post-depositional attrition such as edge rounding suggestive of alluvial transport. In fact, the lithic artifacts were in good condition, with attrition usually limited to intermittent microflaking and crushing along the feather-terminated margins. The short distance between Site 45K11365 and the Bear Creek Site, however, may explain the lack of observable attrition if flake shapes (small thin flakes) allowed for rapid transport in a low velocity alluvial context (e.g., floating small flakes and lightly rolling heavier blocky shatter). If the three gray CCS debitage and the two white CCS flakes each represent a reduction event, however, it is unlikely these represent artifacts transported through alluvial processes unless they are from a component with very few CCS reduction events represented. This lack of diversity seems unlikely if these flakes were fluviially transported from the Stratum III component of the Bear Creek site; one would expect more diversity and mixing of CCS material types.

In summary, the lithic artifacts, sea urchin fragment, and milk glass fragment encountered during excavation of EU 1 appear to be an out-of-context assemblage. The items were originally deposited elsewhere and were subsequently moved either through erosion and redeposition by stream action or during cut and fill activities performed in association with the straightening and channelization of the Sammamish River. In either case, the artifact assemblage encountered at Site 45K11365 is not in its original depositional context.

6 CONCLUSIONS AND RECOMMENDATIONS

HRA has completed an archaeological and architectural survey in the expanded areas of the 2017 APE for the Downtown Redmond Link Extension. In addition, HRA conducted archaeological investigations in previously surveyed portions of the 2017 APE (Marymoor Park Survey Area and portions of the Bear Creek Crossing Survey Area) in order to implement the project's Stage 2 survey methods and test for deeply buried deposits, and to implement additional survey methods to investigate one location where cultural material was identified (Site 45KI1365).

6.1 Architectural Investigations

HRA conducted a records search to determine if there were historic-period architectural resources within the 2017 APE, specifically looking at the areas that were expanded since the Final EIS. Eleven resources within the 2017 APE were identified near the Downtown Redmond Station area. Each resource had been previously recorded and determined not eligible for listing in the NRHP. HRA identified two resources in the SE Redmond Station area that had been previously recorded and determined not eligible for listing in the NRHP. The HPI form for one resource, the Gregory Drilling Office at 17609 NE 70th Street, had not been updated in over 10 years, and as such, the resource was revisited and the HPI form updated. DAHP concurred that this resource is not eligible for listing in the NRHP (Attachment D.2). Updated HPI forms are included in Attachment D.1. The project will have *no effect* on these 13 historic-period resources in the Downtown Redmond Link Extension's 2017 APE.

HRA revisited two historic-period resources that have been determined eligible for listing in the NRHP and are within the 2017 APE near the Downtown Redmond Station. Both the Justice William White House (7730 Leary Way NE) and the Bill Brown Building (7824 Leary Way NE) are on parcels over 400 feet west of the project terminus. Since the Final EIS, conditions have not changed at the Justice William White House that would alter its NRHP eligibility. Minor alterations to the Bill Brown Building by its owners since the Final EIS led HRA to update its HPI form (Attachment D.1). Construction of the proposed Downtown Redmond Station at this location will not have a direct or indirect effect on either resource, resulting in a finding of *no adverse effect*.

A "trestle" previously recorded as part of archaeological Site 45KI451 was recorded as an architectural resource on an HPI form. The bridge, which dates to around 1970, does not appear to be associated with the former Seattle, Lake Shore & Eastern and subsequent Northern Pacific Railroad, and was likely not constructed during the historic period. Regardless, the previous determination that the bridge is not eligible for listing in local, state, or national registers of historic places remains unchanged. The project proposes to remove this former railroad bridge and its abutments in order to improve the Bear Creek stream channel. FTA affirmed and DAHP concurred that the bridge is not eligible for listing in the NRHP (Attachment D.2). The project will have *no effect* on historic properties at this location.

6.2 Archaeological Investigations

HRA excavated 105 augers in the Marymoor Park Survey Area and 20 augers in the Bear Creek Crossing Survey Area. These augers were intended to explore the potential of deeply buried archaeological deposits in these areas. In addition, a pedestrian survey was conducted in the expanded survey areas within the 2017 APE. Two augers excavated during the archaeological investigations contained one or more artifacts.

6.2.1 Site 45KI451

Possible historic-period artifacts (glass, whiteware, nail, clinker) were identified in the upper 120 centimeters of Auger 203 in the Bear Creek Crossing Survey Area. These items were in fill deposits associated with the adjacent railroad that has been previously recorded as Site 45KI451. Similar items were found in shovel probes excavated in this area in 2010. The site has previously been determined not eligible for listing in the NRHP. These items do not change the significance of the site, and it remains not eligible for the NRHP.

6.2.2 Site 45KI1365

One artifact was found in Auger 1 within the Marymoor Park Survey Area. The artifact was found between 280 and 290 cmbs. HRA subsequently conducted additional investigations in this location to explore for additional cultural materials to determine if a site was present that might require management. These additional investigations have concluded that the original artifact and additional cultural materials found at Site 45KI1365 appear to have been moved to this location, most likely by U.S. Army Corps of Engineers' activities in the mid-1900s and floods, and redeposited out of context with their original stratigraphic position. The exact source location of these artifacts cannot be determined from our investigations, and additional investigations to find the source location of the artifacts displaced to Site 45KI1365 are not practicable. The likely source location was to the west of Site 45KI1365, [REDACTED]

[REDACTED]. In either case, the location has been disturbed by the U.S. Army Corps of Engineers' activities. The posited method of redeposition of the cultural materials by the U.S. Army Corps of Engineers (i.e., dredging and/or mechanical removal) has upset the artifacts' position relative to each other and to other potential cultural evidence that may persist in archaeological sites (e.g., dateable organics, soil staining or residues) that represent the greatest opportunity for interpretation and, therefore, that would represent a contribution to the archaeological record. With this loss of integrity, FTA determined and DAHP concurred that Site 45KI1365 is *not eligible* for listing in the NRHP (Attachment D.2). No additional cultural resources investigation is warranted in the vicinity of 45KI1365.

7 REFERENCES

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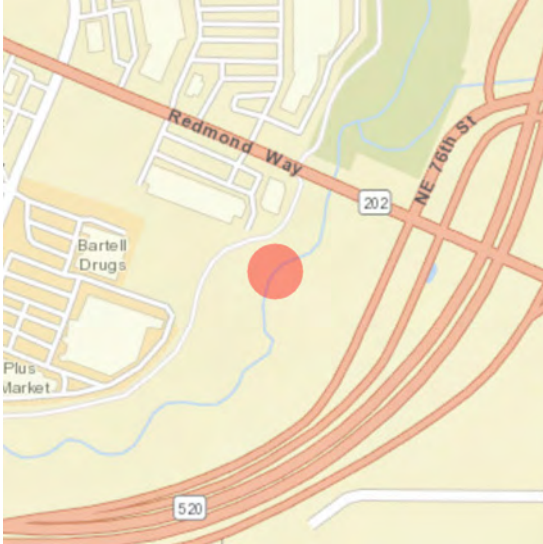
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Attachment D.1

HPI Forms

Location



Address: Crossing Bear Creek south of Redmond Way, east of 170th Ave. NE
Geographic Areas: King Certified Local Government, Redmond Certified Local Government, King County, T25R05E12, REDMOND Quadrangle

Information

Number of stories: 1.00

Construction Dates:

Construction Type	Year	Circa
Built Date	1970	<input checked="" type="checkbox"/>

Historic Use:

Category	Subcategory
Transportation	Transportation - Rail-Related
Transportation	Transportation - Rail-Related

Historic Context:

Category
Engineering

Architect/Engineer:

Category	Name or Company
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Historic Property Report

Resource Name: Bear Creek Crossing Bridge

Property ID: 711607

Thematics:

Local Registers and Districts

Name	Date Listed	Notes
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Project History

Project Number, Organization, Project Name	Resource Inventory	SHPO Determination	SHPO Determined By, Determined Date
090806-11-FTA, FTA, East Link Project, Seattle to Bellevue to Redmond			
2017-04-02368, FTA, Downtown Redmond Link Extension	7/24/2017		

Photos



Bear Creek Crossing



Bear Creek Crossing



Bear Creek Crossing



Historic Property Report

Resource Name: Bear Creek Crossing Bridge

Property ID: 711607

Inventory Details - 7/24/2017

Common name: Bear Creek Crossing Bridge
Date recorded: 7/24/2017
Field Recorder: Chrisanne Beckner
Field Site number: 002

SHPO Determination

Detail Information

Characteristics:

Category	Item
Foundation	Stone
Form Type	Bridge
Cladding	Wood
Structural System	Wood - Log
Plan	Rectangle

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: No
Property is located in a potential historic district (National and/or local): No
Property potentially contributes to a historic district (National and/or local): No



Historic Property Report

Resource Name: Bear Creek Crossing Bridge

Property ID: 711607

Significance narrative: The crossing over Bear Creek is located along the alignment of the former Seattle, Lake Shore, and Eastern, later the Northern Pacific rail line. However, the bridge, as extant, does not appear to be associated with the Seattle, Lake Shore, and Eastern, or with the Northern Pacific, both of which supported and spurred growth in the Puget Sound region. Were an original trestle or bridge intact at this location, it could be considered significant under Criterion A, for association with those railroads. However, the rail line was abandoned and dismantled in the 1970s, and the extant bridge, based on its current materials and condition, does not appear to date to the era of the railroad. Instead, it appears to be an independently constructed crossing that utilized the alignment following decommissioning of the railroad. HRA recommends that the bridge, as it exists today, is not significant for its association with the two rail lines under NRHP Criterion A.

Research did not reveal that the bridge has independent association with any significant person in local, state, or national history. HRA recommends that the bridge is not significant under NRHP Criterion B. The bridge is an example of a common and ubiquitous type, and features typical structural features including piles, pile caps, beams, and a plank deck. The bridge does not include the rails, ties, or spikes that identify any former use as a railroad trestle. Furthermore, incising is not a typical feature of late nineteenth-century or early twentieth-century trestles. Based on this detail, HRA suggests that the bridge was constructed possibly outside the historic period. Regardless, it is not a significant example of a late nineteenth or early twentieth century trestle under NRHP Criterion C, and does not appear to be independently eligible for its design/construction within any context under Criterion C. The trestle is not expected to reveal new information about history or prehistory. HRA recommends that the trestle is not significant under NRHP Criterion D.

When associated with the historic period of the railroad, the bridge features poor integrity. Although it remains in or near an original crossing location at Bear Creek, it retains poor integrity of setting, as it no longer functions as part of a working rail system with the associated landscape, which would have included a cleared corridor with associated railroad features including safety equipment and depots or stations. Redmond's original station, which was constructed in 1889, was demolished in 1972 (Gilpin and Gillespie 2010). The bridge retains no integrity of design, materials, or workmanship for its association with the railroad. Furthermore, the bridge features poor integrity of feeling and association, as it no longer retains its original use, evidence of rails and ties, or its original association with an uninterrupted rail corridor.

HRA concurs with previous findings that the bridge does not rise to the level of significance or retain sufficient integrity to meet any of the criteria for listing in local, state, or national registers of historic places. HRA recommends the trestle not eligible for listing in the WHR or the NRHP.



Historic Property Report

Resource Name: Bear Creek Crossing Bridge

Property ID: 711607

Physical description:

The crossing over Bear Creek is located along the alignment of the former Seattle, Lake Shore, and Eastern, later the Northern Pacific rail line. The line once crossed Bear Creek approximately 200 ft south of Redmond Way. At the crossing is an extant timber stringer bridge (previously recorded as a “trestle,” see Gilpin and Gillespie 2010). Though the bridge is in the former alignment, no evidence of rails and ties remain on the structure, or abutting the bridge to the east and west. The majority of the former rail alignment in Redmond was converted to the Redmond Central Connector walking and biking trail around 2013.

The bridge is located in a wooded area south of Redmond Way approximately 100 ft east of the eastern termination point of the Redmond Central Connector at its intersection with the Bear Creek Trail. The bridge is accessible by foot by way of a minimally maintained trail that runs along the former grade of the Seattle, Lake Shore, and Eastern. As previous studies have noted, a small section of the former rail line (approximately 40 ft west of the crossing) retains its rail and ties along the trail (Gilpin and Gillespie 2010), though no evidence of rails or ties are extant on the subject bridge.

Research did not reveal the date of the bridge’s construction. The railroad was established in 1885 and was constructed through Redmond in approximately 1888. The extant bridge’s condition and materials, however, indicate it is a modern (ca. 1970 or later) version of an original crossing associated with the railroad. The stringer bridge was constructed on piles with abutments of horizontal wood planks resting on stone and concrete rip rap. The bridge spans approximately 30 ft and is approximately 14 ft wide. High water levels made close examination of the bridge’s support system impossible, but previous studies noted the bridge is supported on three sets of six piles each, two at the abutments and one in the center. These support three pile caps, ten beams (or stringers), and a deck of thirty-four planks that are mostly covered in gravel. Deterioration has taken place at the bridge’s southwest corner, exposing a portion of the structure. The bridge’s only railing consists of beams laid atop the deck at the east and west edges and tied to the bridge by bolted iron fasteners (Gilpin and Gillespie 2010). Many of the structural elements, including the beams, pile caps, and railings are incised, and show evidence of pressure treatment, which is a mid- to late twentieth-century process used on woods like fir to increase the absorption of wood preservatives.

Bibliography:

Gilpin, Jennifer, and Ann Gillespie
2010 State of Washington Archaeological Site Inventory Form Addendum for 45KI451. On file at the Department of Archaeology and Historic Preservation, Olympia, Washington.

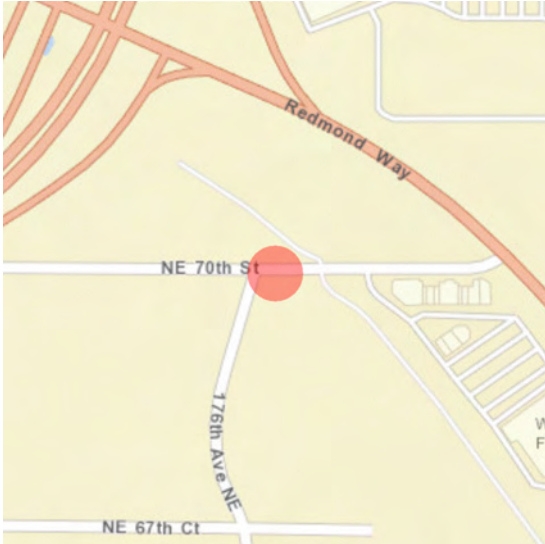


Historic Property Report

Resource Name: Gregory Drilling Office

Property ID: 711604

Location



Address: 17609 NE 70th St, Redmond, WA, 98052, USA

Geographic Areas: King Certified Local Government, Redmond Certified Local Government, King County, T25R05E12, REDMOND Quadrangle

Information

Number of stories: 1.00

Construction Dates:

Construction Type	Year	Circa
Built Date	1940	<input type="checkbox"/>

Historic Use:

Category	Subcategory
Domestic	Domestic - Single Family House
Domestic	Domestic - Single Family House

Historic Context:

Category
Architecture

Architect/Engineer:

Category	Name or Company
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Historic Property Report

Resource Name: Gregory Drilling Office

Property ID: 711604

Thematics:

Local Registers and Districts

Name	Date Listed	Notes
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Project History

Project Number, Organization, Project Name	Resource Inventory	SHPO Determination	SHPO Determined By, Determined Date
090806-11-FTA, FTA, East Link Project, Seattle to Bellevue to Redmond			
2017-04-02368, FTA, Downtown Redmond Link Extension	7/24/2017		

Photos



Gregory Drilling Office



Gregory Drilling Office with additional buildings and yard



Gregory Drilling Office



Gregory Drilling Office



Historic Property Report

Resource Name: Gregory Drilling Office

Property ID: 711604

Inventory Details - 7/24/2017

Common name: Greogry Drilling Office
Date recorded: 7/24/2017
Field Recorder: Chrisanne Beckner
Field Site number: 003

SHPO Determination

Detail Information

Characteristics:

Category	Item
Foundation	Concrete - Poured
Form Type	Single Dwelling - Bungalow
Roof Type	Gable - Side
Roof Material	Asphalt/Composition
Cladding	Wood - Clapboard
Structural System	Wood - Platform Frame
Plan	Irregular

Styles:

Period	Style Details
Modern Movement	Minimal Traditional

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: No
Property is located in a potential historic district (National and/or local): No
Property potentially contributes to a historic district (National and/or local): No



Historic Property Report

Resource Name: Gregory Drilling Office

Property ID: 711604

Significance narrative: The building is an example of a minimal traditional residential building, featuring a simple plan, minimal eaves, and classical façade details including cornice returns and a central pediment. The building does not feature the wood-framed windows that are typical of its period of construction. The building includes some of the typical details associated with the minimal traditional style, although these simple buildings include few distinctive features and are rarely significant for their architectural character. HRA recommends that the building is not a distinctive example of its type, period, or method of construction. It does not possess high artistic value and does not appear to be the work of a master. HRA recommends that the building is not significant under NRHP Criterion C.

From its date of construction, the building features integrity of location as it remains on its original parcel. It does not retain integrity of setting as this once residential building is now part of an industrial yard. The building features reduced integrity of design, materials, and workmanship due to the addition of replacement windows. It features reduced integrity of feeling and association as it no longer retains its original use or retains an association with a residential setting.

HRA recommends that the building is not eligible for listing in the NRHP under Criterion C and does not qualify for listing in state or local registers for its architectural character.

Physical description: The 1940 building at 17609 NE 70th St. was surveyed in 2007 as part of the original survey for the East Link Project. At that time, the original house was being used as an office and was found not eligible for listing in local, state, or national registers of historic places due to a lack of architectural significance and integrity (Gillespie 2007). The house is currently utilized as office space for Gregory Drilling, Inc.

According to the King County Assessor, the building at 17609 NE 70th St. was constructed in 1940 as a single-family residence (King County Assessor 2017). The building faces north toward NE 70th St., and is generally rectangular in plan with a set-back projection on the west elevation. The building is one story tall above a daylight basement. It equals 1,840 square ft. The building is minimal traditional in style, sits on a poured concrete foundation, is clad in lapped, horizontal boards, and is topped by a side-gabled compositional asphalt roof with no eaves, decorative fascia boards in the gable, and cornice returns.

The building's primary façade features a central entry door with a concrete stair and small stoop under a projecting pediment supported by two simple, square posts. Flanking the stair are planters at grade framed in concrete blocks. The building's entry door is flanked east and west by vinyl-framed sliding windows. The larger eastern window includes a central, fixed light.

The east elevation includes an additional sliding, vinyl-framed window and a one-over-one, vinyl-framed window. The secondary west elevation includes the shed-roofed addition with modest eave, but no additional openings. The building's rear (south) elevation includes two doors, one centrally located on the original elevation and one on the western addition. The central door is flanked by two one-over-one, vinyl-framed windows.



Historic Property Report

Resource Name: Gregory Drilling Office

Property ID: 711604

Bibliography:

Gillespie, Ann

2007 Historic Property Inventory form for Property 54179, 17609 NE 70th St., Redmond. Electronic document, <https://secureaccess.wa.gov/dahp/wisaardp3/>, accessed July 20, 2017.

King County Assessor

2017 Property detail for 17609 NE 70th St., Redmond, WA. Electronic document, <http://blue.kingcounty.com/Assessor/eRealProperty/Detail.aspx?ParcelNbr=1225059229>, accessed July 20, 2017.



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758

Location



Address: 7824 Leary Way, Redmond, WA 98052
Tax No/Parcel No: 7198800025
Plat/Block/Lot: Blk 2 Lots 1-2
Geographic Areas: REDMOND Quadrangle, T25R05E11, King County, T11R25E05

Information

Number of stories: 2.00

Construction Dates:

Construction Type	Year	Circa
Built Date	1905	<input checked="" type="checkbox"/>



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758

Historic Use:

Category	Subcategory
Commerce/Trade	Commerce/Trade - Restaurant
Commerce/Trade	Commerce/Trade - Restaurant

Historic Context:

Category
Architecture
Politics/Government/Law
Commerce
Entertainment/Recreation

Architect/Engineer:

Category	Name or Company
Builder	Brown, Bill

Thematics:

Local Registers and Districts

Name	Date Listed	Notes
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Project History

Project Number, Organization, Project Name	Resource Inventory	SHPO Determination	SHPO Determined By, Determined Date
090806-11-FTA, FTA, East Link Project, Seattle to Bellevue to Redmond	2/19/2007	Determined Eligible	, 2/11/2014
2005-10-00155, , Redmond	10/1/1998	Not Determined	
2005-10-00155, , Redmond	4/18/2005	Not Determined	
2017-04-02368, FTA, Downtown Redmond Link Extension	4/3/2017		

Photos



West Elevation



North and West Elevations



The Matador, southwest corner, 2017



The Matador, east elevation, 2017



The Matador, facade, 2017



The Matador, facade, 2017



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758



Southwest Corner



South and West Elevations



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758

Inventory Details - 10/1/1998

Common name: The Matador
Date recorded: 10/1/1998
Field Recorder: Stephen Emerson
Field Site number:
SHPO Determination

Detail Information

Characteristics:

Category	Item
Foundation	Concrete - Poured
Form Type	Commercial
Roof Type	Flat with Parapet
Cladding	Brick

Styles:

Period	Style Details
Late 19th and Early 20th Century American Movements	Commercial

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: Yes

Property is located in a potential historic district (National and/or local): Yes

Property potentially contributes to a historic district (National and/or local): Yes

Significance narrative: [Emerson, 1998 Survey] The Brown Building was financed by Bill Brown, a Redmond businessman and civic leader who served as Mayor for many years. He opened his first business, a saloon, in 1910. It was located in a wood-frame building on the site of the present brick structure, which was built in 1913. Brown operated a saloon in the northern portion of the new building, and a barber shop and drugstore occupied the other storefront spaces. The upper level served as a community gathering place for entertainment and, later, as a lodge hall and meeting room. For many years it was the largest brick structure in Redmond. It has been in continuous use as a business location until the present day. It is significant as one of the best preserved examples of commercial architecture in the early Redmond business district and retains remarkable exterior architectural integrity. It appears to be eligible for inclusion on the National Register of Historic Places and is a contributing element of the potential Redmond City Center Historic District.



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758

Physical description: [Emerson, 1998 Survey] This property is a two-story red brick commercial building with a flat built-up roof and a concrete foundation. The roof line is defined by a brick parapet, with concrete coping, on the north, west, and south sides. The primary facades of this corner lot building face west and north. Below the parapet on these sides is a metal cornice entablature supported by widely spaced modillion blocks. The primary storefront entries are located on the west side. These include a recessed corner entry, with the corner supported by a square brick pillar, two other recessed storefront entries and a recessed entry door, with transom light, that accesses the upper level of the building. The three storefront entries feature wood and glass doors and large display windows, all with transom lights. In addition, large multiple transom lights are situated above each storefront and the upper level access entry. At present these are covered with a plastic or canvas material. The walkways preceding three of the entries retain decorative tile work that is probably original. The second level of the west facade features four large window units, each consisting of a central fixed sash picture window flanked by wood sash double-hung windows, all of which have transom lights above. Brick decor of this facade includes corbeling above the windows, triangular details beneath each modillion block of the cornice, a window sill string course, and another string course separating the upper and lower level. The north facade features two secondary glass and wood entry doors with large transom lights, and wood sash double-hung windows, five above and two on the first level. The east side contains a first level entry and two rows of wood sash double-hung windows which have segmental arches and brick sills. One lower window opening has been partially filled in and one upper level window has been removed and replaced by a door that accesses a newer wood-frame fire escape. The south facade probably was originally a blank brick surface. Fenestration (lower level entry door and three upper level window openings) appears to have been opened at a later date.

Bibliography: Bagley, Clarence B., *History of King County, Washington*, Vol. 1, S.J. Clarke Publishing Company: Chicago, Seattle, 1929.

Sanborn Fire Insurance Maps, Redmond, 1908, 1926, 1926 (corrected 1930).

Way, Nancy, *Our Town Redmond*, Marymoor Museum, Redmond, 1989.



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758

Inventory Details - 4/18/2005

Common name: The Matador

Date recorded: 4/18/2005

Field Recorder: L. Melton

Field Site number:

SHPO Determination

Detail Information

Characteristics:

Category	Item
Cladding	Brick
Plan	Rectangle
Form Type	Commercial
Roof Type	Flat with Parapet

Styles:

Period	Style Details
Late 19th and Early 20th Century American Movements	Commercial

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: Yes

Property is located in a potential historic district (National and/or local): No



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758

Significance narrative: [Emerson, 1998 Survey] The Brown Building was financed by Bill Brown, a Redmond businessman and civic leader who served as Mayor for many years. He opened his first business, a saloon, in 1910. It was located in a wood-frame building on the site of the present brick structure, which was built in 1913. Brown operated a saloon in the northern portion of the new building, and a barber shop and drugstore occupied the other storefront spaces. The upper level served as a community gathering place for entertainment and, later, as a lodge hall and meeting room. For many years it was the largest brick structure in Redmond. It has been in continuous use as a business location until the present day. It is significant as one of the best preserved examples of commercial architecture in the early Redmond business district and retains remarkable exterior architectural integrity. It appears to be eligible for inclusion on the National Register of Historic Places and is a contributing element of the potential Redmond City Center Historic District.

[2005 Update]: This property is associated with the earliest period of commercial, civic and residential construction (1889-1911) generated by the completion of the Lake Shore and Eastern Railroad, which facilitated active timber clearing and lumber milling and provided regular passenger service.

This building is significant for its architecture, its association with Bill Brown, its association with the development of Redmond and its association to the Order of the Knights of Pythias. The second floor was used by the Knights of Pythias. Additional research is needed on the history of this group in Redmond.

This resource appears to be eligible for the National Register of Historic Places and the Local Register of Historic Landmarks.

Reference Emerson's 1998 Survey.



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758

Physical description:

[Emerson, 1998 Survey] This property is a two-story red brick commercial building with a flat built-up roof and a concrete foundation. The roof line is defined by a brick parapet, with concrete coping, on the north, west, and south sides. The primary facades of this corner lot building face west and north. Below the parapet on these sides is a metal cornice entablature supported by widely spaced modillion blocks. The primary storefront entries are located on the west side. These include a recessed corner entry, with the corner supported by a square brick pillar, two other recessed storefront entries and a recessed entry door, with transom light, that accesses the upper level of the building. The three storefront entries feature wood and glass doors and large display windows, all with transom lights. In addition, large multiple transom lights are situated above each storefront and the upper level access entry. At present these are covered with a plastic or canvas material. The walkways preceding three of the entries retain decorative tile work that is probably original. The second level of the west facade features four large window units, each consisting of a central fixed sash picture window flanked by wood sash double-hung windows, all of which have transom lights above. Brick decor of this facade includes corbeling above the windows, triangular details beneath each modillion block of the cornice, a window sill string course, and another string course separating the upper and lower level. The north facade features two secondary glass and wood entry doors with large transom lights, and wood sash double-hung windows, five above and two on the first level. The east side contains a first level entry and two rows of wood sash double-hung windows which have segmental arches and brick sills. One lower window opening has been partially filled in and one upper level window has been removed and replaced by a door that accesses a newer wood-frame fire escape. The south facade probably was originally a blank brick surface. Fenestration (lower level entry door and three upper level window openings) appears to have been opened at a later date.

[2005 Update]: This building retains a high degree of integrity. The "triangular details beneath each modillion block of the cornice" mentioned by Emerson is the symbol used by the Knights of Pythias.

Reference Emerson's 1998 Survey.

Bibliography:

King County Property Record Cards (c.1938-1971), Puget Sound Regional Archives, Pritchard-Fleming Building, 3000 Landerholm Circle SE, MS-N100, Bellevue, WA 98007.

Hardy, Naomi. Historic Downtown Redmond Walking Tour. May 2001.



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758

Inventory Details - 2/19/2007

Common name: Big Time Pizza
Date recorded: 2/19/2007
Field Recorder: A. Gillespie
Field Site number: 1256-114
SHPO Determination 090806-11-FTA determined on 2/11/2014

Detail Information

Characteristics:

Category	Item
Structural System	Wood - Balloon Frame
Foundation	Concrete - Poured
Plan	Square
Roof Material	Asphalt/Composition
Cladding	Brick - Common Bond
Roof Type	Flat with Parapet
Form Type	Commercial

Styles:

Period	Style Details
Other	Vernacular

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: Yes

Property is located in a potential historic district (National and/or local): No



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758

Significance narrative: Bill Brown served as mayor of Redmond from 1919 to 1948. Beginning well before he became mayor, he operated a variety of businesses. In 1910, Brown built his first building at Leary and Cleveland, the wood-frame building that housed his saloon. He tore it down three years later and built the brick building that still stands at that corner today. When it opened, it housed the saloon, a drugstore, and a barber shop. Upstairs was a community gathering space. When the saloon closed during prohibition, Brown explored other businesses, including an auto stage line and a logging business. Beginning about 1915, the space on the second floor of this building served as an unofficial Redmond City Hall.

The three original commercial bays on the west elevation, the Leary Way side, of the ground floor survive. Most of the window frames are original and much of the glass is as well. Even the triangular ornaments below the cornice brackets appear in historic photos of the building. The first floor interior has been altered, to allow one restaurant to occupy the entire floor. Some interior walls remain, but clearly some have been removed and others altered. The changes to the second floor interior are unknown.

This building is associated with much of the history of Redmond. While it may not have an association with particular significant events, it is strongly associated with Bill Brown – the mayor of Redmond for nearly 30 years. It is not an outstanding example of an architectural style, but is clearly the work of a master craftsman. The integrity of the building itself is clear. While the setting is not pristine, as some neighboring buildings have been destroyed and others altered, in some cases beyond recognition, there are enough historic buildings in the area to maintain the integrity of the setting. HRA recommends that this building is eligible for the National Register of Historic Places and the Washington Heritage Register. It is already listed in the Redmond Heritage Landmarks Register.

Physical description: This two-story common bond brick building combines elements of several architectural styles. The prominent cornice is an element of the Italian Renaissance style, but buildings of this style are generally constructed of stone and have an elaborate entry and a rusticated first story. The simple brackets under the cornice evoke multiple architectural styles. While the brick corbelling and the belt course between the stories are not ornate examples of these details, they do indicate that the brick mason was an accomplished craftsman and that whoever designed the building, whether it was Bill Brown, the brick mason, or someone else, had a eye for detail.

Bibliography: Ching, Francis D. K. *A Visual Dictionary of Architecture*. New York: John Wiley & Sons, Inc., 1995.

Hardy, Naomi. *Historic Downtown Redmond Walking Tour*. Redmond, Washington: Redmond Historical Society and the Eastside Heritage Center, 2001.

King County Property Records. <http://www.metrokc.gov/GIS/mapportal/PViewer_main.htm> March 1, 2007 and Puget Sound Regional Archives.

McAlester, Lee and Virginia. *A Field Guide to American Houses*. New York: Alfred a Knopf, 2003.



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758

Inventory Details - 4/3/2017

Common name: Bill Brown Building
Date recorded: 4/3/2017
Field Recorder: Chrisanne Beckner
Field Site number: 001

SHPO Determination

Detail Information

Characteristics:

Category	Item
Foundation	Concrete - Poured
Form Type	Commercial - Two-Part Block
Roof Type	Flat with Parapet
Roof Material	Asphalt/Composition - Built Up
Cladding	Brick - Common Bond
Plan	Square

Styles:

Period	Style Details
Late 19th and Early 20th Century American Movements	Commercial

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: Yes
Property is located in a potential historic district (National and/or local): No
Property potentially contributes to a historic district (National and/or local): No



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758

Significance narrative: The building is being resurveyed due to a change in condition. While the building's basic details remain the same, it was altered in 2007, the same year it was initially surveyed, for the current tenant, a restaurant called the Matador. Primary alterations include the addition of a wrought-iron arch at the primary entry and the addition of a large, enclosed patio on the rear (west) elevation, as well as storage and systems that have been integrated into the rear elevation of the building under an existing external stair. Also, a secondary entry on the south elevation has been sealed with brick.

These alterations, including the wrought iron arch added to the primary façade, appear to be reversible. The added wrought iron framing was fitted around existing brick elements, and installation does not appear to have damaged or altered original materials in such a way as to affect the building's eligibility to the NRHP. Other additions have been confined to secondary elevations and are less significant than those on the primary façade. The wrought iron-enclosed courtyard appears to be detached from the building. While it alters the setting and the feeling of the building somewhat, the alteration is minor. The addition of storage and systems at the external stair also appear to be minor and have appropriately been confined to the least significant elevation of the building. The sealing of a secondary entry on the south elevation is not sufficient to affect the building's integrity. Furthermore, all these alterations were in place when the building was officially determined eligible by DAHP in 2014. Despite these changes, the building also remains a Redmond City Landmark (City of Redmond 2017).

HRA recommends that the building remains significant under Criterion B for its association with former Redmond mayor, Bill Brown, and under Criterion C as a significant and distinctive example of an early twentieth century commercial, two-part block. The building retains integrity of location and setting, as it remains integrated into downtown Redmond's historic core. It retains sufficient integrity of design, materials, and workmanship in spite of minor alterations. It retains integrity of feeling and association as it retains its original commercial use and its associations with historic figures.

HRA recommends that the building retains sufficient significance and integrity to remain eligible for listing in the National Register of Historic Places under Criteria B and C. The building also remains eligible for listing on state and local registers for its architectural character and its associations with significant historic people.

Physical description: The commercial building known as the Bill Brown Building at 7824 Leary Way NE is a two-story brick commercial block constructed in 1913. It sits on a poured concrete foundation, is constructed with red brick in common bond, and is topped by a flat, built-up roof. Its primary façade faces west and includes a recessed, canted entry with a brick pillar supporting the northwest corner. The building's primary west-facing façade features two additional storefronts with recessed entry doors and display windows, as well as an off-center door to the building's upper floor. All storefronts include swinging doors paired with wide, wood-framed display windows and topped by wood-framed transoms. The facade's second story is symmetrical with four bays separated by brick pilasters. Each bay includes a large, fixed, wood-framed window flanked by two double-hung, one-over-one, wood-framed windows. These three-part windows are topped by three fixed lights and a lintel of soldier bricks. Pilasters include decorative brick-formed triangles up near the cornice, which consists of courses of progressive, projecting brick. The brick banding is topped by a metal cornice entablature supported by widely spaced modillions. Openings on secondary elevations include wood doors and wood-framed windows with segmented arches above and brick sills below.



Historic Property Report

Resource Name: Bill Brown Building

Property ID: 46758

Bibliography:

City of Redmond

2017 Redmond Heritage Resource Register. Electronic document, <http://online.encodeplus.com/regs/redmond-wa/doc-viewer.aspx#secid-4225>, accessed March 16, 2017.

Department of Archaeology and Historic Preservation (DAHP)

2013 DAHP PROJECT: 123112-11-FHWA FHWA: Redmond Way and Cleveland Street Couplet, Fed Aid TBD. Electronic document, <https://secureaccess.wa.gov/dahp/wisaardp3/>, accessed March 6, 2017.

2014 DAHP PROJECT: 090806-11-FTA FTA. East Link Project, Seattle to Bellevue to Redmond. Electronic document, <https://secureaccess.wa.gov/dahp/wisaardp3/>, accessed March 6, 2017.

2017 Washington Heritage Register. Electronic document, <http://www.dahp.wa.gov/washington-heritage-register>, accessed March 16, 2017.

Historical Research Associates, Inc. (HRA) and CH2M Hill

2011 Sound Transit East Link Project, Appendix H4, Historic and Archaeological Resources Technical Report, prepared for Sound Transit, on file with Sound Transit, Seattle, WA.

King County

2017 Landmarks Ordinance 10474, KC 20.62: Protection and Preservation of Landmarks, Landmark Sites, and Districts. Electronic document, <http://www.kingcounty.gov/~media/services/home-property/historic-preservation/documents/KCLC/LC-Landmarks-Ordinance-10474.ashx?la=en>, accessed March 16, 2017.

National Park Service (NPS)

2002 How to Apply the National Criteria for Evaluation Bulletin. Electronic document, <http://www.nps.gov/nr/publications/bulletins/nrb15/index.htm>, accessed February 19, 2016.

Attachment D.2

Consultation Summary

ATTACHMENT D.2 CONSULTATION SUMMARY

Table D.2-1 summarizes consultation efforts since 2011. Table 4-1 in Appendix H4 of the 2011 East Link Final EIS provides the record of consultation through 2011.

Table D.2-1. Consultation Summary

Date	Form	Participants	General Topics
March 28, 2017 March 29, 2017	Letter	FTA/Sound Transit to Muckleshoot Indian Tribe, Puyallup Tribe of Indians, Snoqualmie Tribe, Stillaguamish Tribe of Indians, Suquamish Tribe, Tulalip Tribes, Confederated Tribes and Bands of the Yakama Indian Nation, Duwamish Tribe, and Snohomish Tribe of Indians	Notice of continuation of Section 106 consultation. Submission of revised APE and proposed archaeological survey and inadvertent discovery plans.
April 5, 2017	Letter	FTA to DAHP	Notice of continuation of Section 106 consultation. Submission of revised APE, proposed archaeological survey and inadvertent discovery plans.
April 11, 2017	Letter	DAHP to FTA	No comments on revised APE or the proposed archaeological survey and inadvertent discovery plans.
October 17, 2017	Letter	FTA to DAHP	Informing FTA of initial survey results, additional survey request and submitting revision to the APE.
October 17, 2017 October 23, 2017	Letter	FTA/Sound Transit to Muckleshoot Indian Tribe, Puyallup Tribe of Indians, Snoqualmie Tribe, Stillaguamish Tribe of Indians, Suquamish Tribe, Tulalip Tribes, Confederated Tribes and Bands of the Yakama Indian Nation, Duwamish Tribe, and Snohomish Tribe of Indians	Notice of additional survey work and revision to the APE.
October 25, 2017	Letter	DAHP to FTA	Revised APE concurrence and approved additional survey plan.
April 25, 2018	Letter	FTA to DAHP	Concurrence determination on historic properties and Marymoor Park Cultural Resource Site 45K11365



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION X
Alaska, Idaho, Oregon,
Washington

915 Second Avenue
Federal Bldg. Suite 3142
Seattle, WA 98174-1002
206-220-7954
206-220-7959 (fax)

March 28, 2017

The Honorable Virginia Cross, Tribal Chair
Muckleshoot Indian Tribe
39015 172nd Ave SE
Auburn, WA 98092

**Re: Continuation of Section 106 Consultation for Segment E (Downtown
Redmond Extension) of the East Link Light Rail Project**

Dear Chairwoman Cross:

In July 2011, the Federal Transit Administration (FTA) and Sound Transit published the East Link Final Environmental Impact Statement (EIS), analyzing light rail alternatives from Seattle to Bellevue and Redmond. The Sound Transit Board selected the project to be built in July 2011, with an interim terminus at Overlake Transit Center in Redmond until additional funding became available to complete the project to downtown Redmond. Sound Transit is now starting implementation of this last segment of the East Link Extension, known as the Downtown Redmond Link Extension. Changed conditions since the Board's selection of the project require some refinements to the project that was defined in 2011. Sound Transit anticipates the refined project will remain in the same general corridor analyzed in the Final EIS and selected by the Sound Transit Board.

FTA, in cooperation with Sound Transit, is continuing the government-to-government consultation regarding the Project under the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act, and other federal authorities.

East Link Section 106 Determinations

Sound Transit, FTA, and the Washington State Department of Archaeology and Historic Preservation (DAHP) signed a Memorandum of Agreement (MOA) in November 2011 addressing East Link's adverse effects under Section 106. During this process, FTA consulted with the Muckleshoot Indian Tribe and other interested tribes. No adverse effects to historic resources were identified in Segment E, the Downtown Redmond Link Extension. However, the MOA requires Sound Transit to conduct additional archaeological testing before construction

pursuant to the Archaeological Survey Strategy included in the Historic and Archaeological Technical Report.

Proposed Area of Potential Effects (APE) for Downtown Redmond Link Extension

The APE proposed for the Downtown Redmond Link Extension is consistent with that presented in the East Link EIS, representing a 200-foot buffer from the center line of the proposed alignment and from the exteriors of planned transit structures such as stations (see attached figure). The APE encompasses areas where the project may affect archaeological resources and historic buildings and structures. Although the precise locations of project elements are not known at this stage, they are expected to be within the 200-foot buffer described above. The vertical APE for direct effects to prehistoric and historic-period archaeological resources includes areas of ground disturbance associated with project construction, but details regarding the depth of construction will be developed as the project continues through design.

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Sound Transit will report the archaeological survey results in an addendum to the East Link Historic and Archaeological Technical Report. The addendum will make recommendations on the eligibility of any resources to the National Register of Historic Places or Washington Heritage Register and the potential for the project to affect the resources.

FTA is authorizing Sound Transit to prepare information, analyses, and recommendations regarding Section 106 consultation for this project. The delegated authority to initiate consultation does not extend to making determinations, such as the APE, NRHP eligibility, or effect.

We look forward to your comments on the proposed APE and the draft archaeological resources survey plan. If you have any questions or need additional information, please contact John

Witmer, at 206/220-7964 or john.witmer@dot.gov. The Sound Transit contact for this project is Lauren Swift at 206/398-5301 and lauren.swift@soundtransit.org.

Sincerely,

LINDA M
GEHRKE

Digitally signed by LINDA M GEHRKE
DN: c=US, o=U.S. Government, ou=FTA
FTASeattleWA, ou=DOT FTASeattleWA,
cn=LINDA M GEHRKE
Date: 2017.03.28 14:59:21 -0700

Linda M. Gehrke
Regional Administrator

cc: Laura Murphy, Archaeologist, Muckleshoot Indian Tribe,
laura.murphy@muckleshoot.nsn.us

Encls: APE figure, Archaeological Survey and Inadvertent Discovery Plan



U.S. Department
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**Federal Transit
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Alaska, Idaho, Oregon,
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915 Second Avenue
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March 28, 2017

Puyallup Tribe
Bill Sterud, Chair
3009 Portland Ave
Tacoma, WA 98404

**Re: Continuation of Section 106 Consultation for Segment E (Downtown
Redmond Extension) of the East Link Light Rail Project**

Dear Chairman Sterud:

In July 2011, the Federal Transit Administration (FTA) and Sound Transit published the East Link Final Environmental Impact Statement (EIS), analyzing light rail alternatives from Seattle to Bellevue and Redmond. The Sound Transit Board selected the project to be built in July 2011, with an interim terminus at Overlake Transit Center in Redmond until additional funding became available to complete the project to downtown Redmond. Sound Transit is now starting implementation of this last segment of the East Link Extension, known as the Downtown Redmond Link Extension. Changed conditions since the Board's selection of the project require some refinements to the project that was defined in 2011. Sound Transit anticipates the refined project will remain in the same general corridor analyzed in the Final EIS and selected by the Sound Transit Board.

FTA, in cooperation with Sound Transit, is continuing the government-to-government consultation regarding the Project under the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act, and other federal authorities.

East Link Section 106 Determinations

Sound Transit, FTA, and the Washington State Department of Archaeology and Historic Preservation (DAHP) signed a Memorandum of Agreement (MOA) in November 2011 addressing East Link's adverse effects under Section 106. During this process, FTA consulted with interested tribes. No adverse effects to historic resources were identified in Segment E, the Downtown Redmond Link Extension. However, the MOA requires Sound Transit to conduct

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Witmer, at 206/220-7964 or john.witmer@dot.gov. The Sound Transit contact for this project is Lauren Swift at 206/398-5301 and lauren.swift@soundtransit.org.

Sincerely,

LINDA M
GEHRKE

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FTASeattleWA, ou=DOT FTASeattleWA,
cn=LINDA M GEHRKE
Date: 2017.03.28 15:37:33 -0700

Linda M. Gehrke
Regional Administrator

cc: Brandon Reynon, THPO, Puyallup Tribe, brandon.reynon@puyalluptribe.com

Encls: APE figure, Archaeological Survey and Inadvertent Discovery Plan



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206-220-7959 (fax)

March 28, 2017

Snoqualmie Tribe
Carolyn Lubenau, Tribal Chair
PO Box 969
Snoqualmie, WA 98065

Re: Continuation of Section 106 Consultation for Segment E (Downtown Redmond Extension) of the East Link Light Rail Project

Dear Chairwoman Lubenau:

In July 2011, the Federal Transit Administration (FTA) and Sound Transit published the East Link Final Environmental Impact Statement (EIS), analyzing light rail alternatives from Seattle to Bellevue and Redmond. The Sound Transit Board selected the project to be built in July 2011, with an interim terminus at Overlake Transit Center in Redmond until additional funding became available to complete the project to downtown Redmond. Sound Transit is now starting implementation of this last segment of the East Link Extension, known as the Downtown Redmond Link Extension. Changed conditions since the Board's selection of the project require some refinements to the project that was defined in 2011. Sound Transit anticipates the refined project will remain in the same general corridor analyzed in the Final EIS and selected by the Sound Transit Board.

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East Link Section 106 Determinations

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Sincerely,

LINDA M
GEHRKE

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cn=LINDA M GEHRKE
Date: 2017.03.28 15:39:00 -0700

Linda M. Gehrke
Regional Administrator

cc: Steven Mullen Moses, Cultural Resource Director, Snoqualmie Tribe,
Steve@snoqualmietribe.us

Encls: APE figure, Archaeological Survey and Inadvertent Discovery Plan



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March 28, 2017

Stillaguamish Tribe of Indians
Shawn Yanity, Chairman
PO Box 277
Arlington, WA 98223

**Re: Continuation of Section 106 Consultation for Segment E (Downtown
Redmond Extension) of the East Link Light Rail Project**

Dear Chairman Yanity:

In July 2011, the Federal Transit Administration (FTA) and Sound Transit published the East Link Final Environmental Impact Statement (EIS), analyzing light rail alternatives from Seattle to Bellevue and Redmond. The Sound Transit Board selected the project to be built in July 2011, with an interim terminus at Overlake Transit Center in Redmond until additional funding became available to complete the project to downtown Redmond. Sound Transit is now starting implementation of this last segment of the East Link Extension, known as the Downtown Redmond Link Extension. Changed conditions since the Board's selection of the project require some refinements to the project that was defined in 2011. Sound Transit anticipates the refined project will remain in the same general corridor analyzed in the Final EIS and selected by the Sound Transit Board.

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Sincerely,

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Date: 2017.03.28 15:40:12 -0700

Linda M. Gehrke
Regional Administrator

cc: Kerry Lyste, THPO, Stillaguamish Tribe of Indians, KLyste@stillaguamish.com

Encls: APE figure, Archaeological Survey and Inadvertent Discovery Plan



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206-220-7959 (fax)

March 28, 2017

Suquamish Tribe
Leonard Forsman, Tribal Chair
PO Box 498
Suquamish, WA 98392

Re: Continuation of Section 106 Consultation for Segment E (Downtown Redmond Extension) of the East Link Light Rail Project

Dear Chairman Forsman:

In July 2011, the Federal Transit Administration (FTA) and Sound Transit published the East Link Final Environmental Impact Statement (EIS), analyzing light rail alternatives from Seattle to Bellevue and Redmond. The Sound Transit Board selected the project to be built in July 2011, with an interim terminus at Overlake Transit Center in Redmond until additional funding became available to complete the project to downtown Redmond. Sound Transit is now starting implementation of this last segment of the East Link Extension, known as the Downtown Redmond Link Extension. Changed conditions since the Board's selection of the project require some refinements to the project that was defined in 2011. Sound Transit anticipates the refined project will remain in the same general corridor analyzed in the Final EIS and selected by the Sound Transit Board.

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East Link Section 106 Determinations

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cn=LINDA M GEHRKE
Date: 2017.03.28 15:41:45 -0700

Linda M. Gehrke
Regional Administrator

cc: Dennis Lewarch, THPO, Tulalip Tribes, dlewarch@suquamish.nsn.us

Encls: APE figure, Archaeological Survey and Inadvertent Discovery Plan



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March 28, 2017

Tulalip Tribes
The Honorable Mel Sheldon, Jr.
Tribal Chair
6406 Marine Dr.
Tulalip, WA 98271

Re: Continuation of Section 106 Consultation for Segment E (Downtown Redmond Extension) of the East Link Light Rail Project

Dear Chairman Sheldon:

In July 2011, the Federal Transit Administration (FTA) and Sound Transit published the East Link Final Environmental Impact Statement (EIS), analyzing light rail alternatives from Seattle to Bellevue and Redmond. The Sound Transit Board selected the project to be built in July 2011, with an interim terminus at Overlake Transit Center in Redmond until additional funding became available to complete the project to downtown Redmond. Sound Transit is now starting implementation of this last segment of the East Link Extension, known as the Downtown Redmond Link Extension. Changed conditions since the Board's selection of the project require some refinements to the project that was defined in 2011. Sound Transit anticipates the refined project will remain in the same general corridor analyzed in the Final EIS and selected by the Sound Transit Board.

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cn=LINDA M GEHRKE
Date: 2017.03.28 15:43:40 -0700

Linda M. Gehrke
Regional Administrator

cc: Richard Young, THPO, Tulalip Tribes, ryoung@tulaliptribes-nsn.gov

Encls: APE figure, Archaeological Survey and Inadvertent Discovery Plan



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206-220-7959 (fax)

March 28, 2017

Confederated Tribes and Bands of the Yakama Indian Nation
The Honorable JoDe Goudy, Tribal Chair
PO Box 151
Toppenish, WA 98948

**Re: Continuation of Section 106 Consultation for Segment E (Downtown
Redmond Extension) of the East Link Light Rail Project**

Dear Chairman Goudy:

In July 2011, the Federal Transit Administration (FTA) and Sound Transit published the East Link Final Environmental Impact Statement (EIS), analyzing light rail alternatives from Seattle to Bellevue and Redmond. The Sound Transit Board selected the project to be built in July 2011, with an interim terminus at Overlake Transit Center in Redmond until additional funding became available to complete the project to downtown Redmond. Sound Transit is now starting implementation of this last segment of the East Link Extension, known as the Downtown Redmond Link Extension. Changed conditions since the Board's selection of the project require some refinements to the project that was defined in 2011. Sound Transit anticipates the refined project will remain in the same general corridor analyzed in the Final EIS and selected by the Sound Transit Board.

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FTA is authorizing Sound Transit to prepare information, analyses, and recommendations regarding Section 106 consultation for this project. The delegated authority to initiate consultation does not extend to making determinations, such as the APE, NRHP eligibility, or effect.

We look forward to your comments on the proposed APE and the draft archaeological resources survey plan. If you have any questions or need additional information, please contact John

Witmer, at 206/220-7964 or john.witmer@dot.gov. The Sound Transit contact for this project is Lauren Swift at 206/398-5301 and lauren.swift@soundtransit.org.

Sincerely,

LINDA M
GEHRKE

 Digitally signed by LINDA M GEHRKE
DN: c=US, o=U.S. Government, ou=FTA
FTASeattleWA, ou=DOT FTASeattleWA,
cn=LINDA M GEHRKE
Date: 2017.03.28 15:56:38 -0700

Linda M. Gehrke
Regional Administrator

cc: Kate Valdez, THPO, Confederated Tribes and Bands of the Yakama Indian Nation,
kate@yakama.com
David Powell, Archaeologist, powd@yakamafish-nsn.gov

Encls: APE figure, Archaeological Survey and Inadvertent Discovery Plan



March 29, 2017

The Honorable Cecile Hansen, Tribal Chair
Duwamish Tribe
4705 W Marginal Way SW
Seattle, WA 98106

Re: Continuation of Section 106 Consultation for Segment E (Downtown Redmond Extension) of the East Link Light Rail Project

Dear Chairwoman Hansen:

In July 2011, the Federal Transit Administration (FTA) and Sound Transit published the East Link Final Environmental Impact Statement (EIS), analyzing light rail alternatives from Seattle to Bellevue and Redmond. The Sound Transit Board selected the project to be built in July 2011, with an interim terminus at Overlake Transit Center in Redmond until additional funding became available to complete the project to downtown Redmond. Sound Transit is now starting implementation of this last segment of the East Link Extension, known as the Downtown Redmond Link Extension. Changed conditions since the Board's selection of the project require some refinements to the project that was defined in 2011. Sound Transit anticipates the refined project will remain in the same general corridor analyzed in the Final EIS and selected by the Sound Transit Board.

Sound Transit is continuing consultation regarding the Project under the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act, and other federal authorities.

East Link Section 106 Determinations

Sound Transit, FTA, and the Washington State Department of Archaeology and Historic Preservation (DAHP) signed a Memorandum of Agreement (MOA) in November 2011 addressing East Link's adverse effects under Section 106. During this process, Sound Transit consulted with the Duwamish Tribe and other interested tribes. No adverse effects to historic resources were identified in Segment E, the Downtown Redmond Link Extension. However, the MOA requires Sound Transit to conduct additional archaeological testing before construction pursuant to the Archaeological Survey Strategy included in the Historic and Archaeological Technical Report.

Proposed Area of Potential Effects (APE) for Downtown Redmond Link Extension

The APE proposed for the Downtown Redmond Link Extension is consistent with that presented in the East Link EIS, representing a 200-foot buffer from the center line of the proposed alignment and from the exteriors of planned transit structures such as stations (see attached figure). The APE encompasses areas where the project may affect archaeological resources and historic buildings and structures. Although the precise locations of project elements are not known at this stage, they are expected to be within the 200-foot buffer described above. The vertical APE for direct effects to prehistoric

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Snohomish County Executive

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CHIEF EXECUTIVE OFFICER

Peter M. Rogoff

The Honorable Cecile Hansen

March 29, 2017

Page 2

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Archaeological Survey

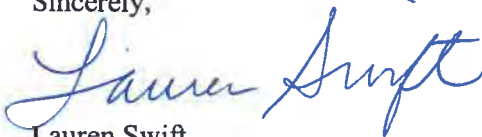
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We look forward to your comments on the proposed APE and the draft archaeological resources survey plan. If you have any questions or need additional information, please contact me at 206/398-5301 or lauren.swift@soundtransit.org.

Sincerely,



Lauren Swift
Senior Environmental Planner

cc:

Encls: APE figure, Archaeological Survey and Inadvertent Discovery Plan



March 29, 2017

The Honorable Mike Evans, Chairman
Snohomish Tribe of Indians
11014 19th Ave SE Ste#8, PMB #101
Everett, WA 98208

Re: Continuation of Section 106 Consultation for Segment E (Downtown Redmond Extension) of the East Link Light Rail Project

Dear Chairman Evans:

In July 2011, the Federal Transit Administration (FTA) and Sound Transit published the East Link Final Environmental Impact Statement (EIS), analyzing light rail alternatives from Seattle to Bellevue and Redmond. The Sound Transit Board selected the project to be built in July 2011, with an interim terminus at Overlake Transit Center in Redmond until additional funding became available to complete the project to downtown Redmond. Sound Transit is now starting implementation of this last segment of the East Link Extension, known as the Downtown Redmond Link Extension. Changed conditions since the Board's selection of the project require some refinements to the project that was defined in 2011. Sound Transit anticipates the refined project will remain in the same general corridor analyzed in the Final EIS and selected by the Sound Transit Board.

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East Link Section 106 Determinations

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Peter M. Rogoff

The Honorable Mike Evans

March 29, 2017

Page 2

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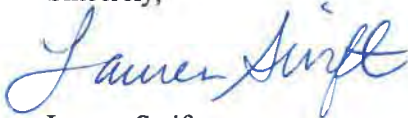
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We look forward to your comments on the proposed APE and the draft archaeological resources survey plan. If you have any questions or need additional information, please contact me at 206/398-5301 or lauren.swift@soundtransit.org.

Sincerely,



Lauren Swift
Senior Environmental Planner

cc:

Encls: APE figure, Archaeological Survey and Inadvertent Discovery Plan



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION X
Alaska, Idaho, Oregon,
Washington

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Seattle, WA 98174-1002
206-220-7954
206-220-7959 (fax)

April 5, 2017

Allyson Brooks
Washington State Historic Preservation Officer
Department of Archaeology & Historic Preservation
PO Box 48343
Olympia, WA 98504-8343

**RE: East Link Light Rail, Continuation of Section 106 Consultation for Segment E:
Downtown Redmond Link Extension**

Log: 090806-11-FTA

Dear Dr. Brooks:

In July 2011, the Federal Transit Administration (FTA) and Sound Transit published the East Link Final Environmental Impact Statement (EIS), analyzing light rail alternatives from Seattle to Bellevue and Redmond. The Sound Transit Board selected the project to be built in July 2011, with an interim terminus at Overlake Transit Center in Redmond until additional funding became available to complete the project to downtown Redmond. Sound Transit is now starting implementation of this last segment of the East Link Extension, known as the Downtown Redmond Link Extension. Changed conditions since the Board's selection of the project require some refinements to the project that was defined in 2011. Sound Transit anticipates the refined project will remain in the same general corridor analyzed in the Final EIS and selected by the Sound Transit Board.

For these reasons, FTA and Sound Transit would like to re-initiate Section 106 consultation on the Downtown Redmond Link Extension project.

East Link Section 106 Determinations

Sound Transit, FTA, and the Washington State Department of Archaeology and Historic Preservation (DAHP) signed a Memorandum of Agreement (MOA) in November 2011 addressing East Link's adverse effects under Section 106. No adverse effects to historic resources were related to the Downtown Redmond Link Extension project, and it is anticipated the refined project will remain in the same general corridor analyzed in the Final EIS and selected by the Board. However, the MOA requires Sound Transit to conduct additional

archaeological testing before construction pursuant to the Archaeological Survey Strategy included in the Historic and Archaeological Technical Report.

Proposed Area of Potential Effects (APE) for Downtown Redmond Link Extension

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Proposed Updates to Historic and Archaeological Information

Sound Transit will review the APE to determine if any additional buildings and structures will be 50 years of age or older by 2021 (the year of construction). Any such buildings will be inventoried and assessed for their potential eligibility for the National Register of Historic Places, the Washington Heritage Register, or local historical listings. Inventories conducted for the East Link EIS will be reviewed to determine if any Historic Property Inventory (HPI) forms need to be updated due to changed conditions. If so, property eligibility determinations will be revisited in consultation with DAHP. Sound Transit will prepare a memorandum summarizing the HPI review and assessing whether any forms or determinations need to be revised.

Since the archaeological inventory for the East Link EIS was conducted, Sound Transit has gathered additional information on archaeological resources in the vicinity of the project. In particular, the Bear Creek Site has been further defined and investigated, and information on sites located within Marymoor Park has been refined and, in some cases, their boundaries expanded. None of these sites have been found to extend into the current APE.

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We look forward to your comments on the proposed APE and the draft archaeological resources survey plan. If you have any questions or need additional information, please contact John Witmer, at 206/220-7964 or john.witmer@dot.gov. The Sound Transit contact for this project is Lauren Swift at 206/398-5301 and lauren.swift@soundtransit.org.

Sincerely,

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cn=KENNETH A, FELDMAN
Date: 2017.04.05 13:48:03 -0700

Kenneth A. Feldman
Deputy Regional Administrator

Cc: Lauren Swift, ST

Attachments: Archaeological Survey and Inadvertent Discovery Plan; APE Map



Allyson Brooks Ph.D., Director
State Historic Preservation Officer

April 11, 2017

Mr. John Witmer
Federal Transit Administration
915 Second Avenue
Federal Building, Suite 3142
Seattle, WA 98174-1002

In future correspondence please refer to:
Project Tracking Code: 090806-11-FTA
Property: East Link Project, Seattle to Bellevue to Redmond
Re: Initiation for Segment E

Dear Mr. Witmer:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHHP). The materials submitted in support of Segment E of the project have been reviewed on behalf of the State Historic Preservation Officer (SHPO) under provisions of Section 106 of the National Historic Preservation Act of 1966 (as amended) and 36 CFR Part 800.

I have reviewed the materials you submitted for this segment of the East Link line and agree that much of the work has been accomplished and previously documented in the EIS prepared for this project. I have reviewed the area of potential effect map as well as the proposed archaeological survey and inadvertent discovery plans and have no comments or suggested changes at this time. Please be certain to keep us informed of all developments and any in-field discoveries as the stage 2 archaeological survey plan is executed.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer (SHPO) in conformance with Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR 800. Also, we appreciate receiving copies of any correspondence or comments from concerned tribes and other parties that you receive as you consult under the requirements of 36 CFR 800.4(a)(4). Should additional information become available, our assessment may be revised.

Thank you for the opportunity to review and comment. If you have any questions, please contact me.

Sincerely,

Matthew Sterner, M.A.
Transportation Archaeologist
(360) 586-3082
matthew.sterner@dahp.wa.gov





U.S. Department
of Transportation
**Federal Transit
Administration**

REGION X
Alaska, Idaho, Oregon,
Washington

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Federal Bldg. Suite 3142
Seattle, WA 98174-1002
206-220-7954
206-220-7959 (fax)

October 17, 2017

Dr. Allyson Brooks
State Historic Preservation Officer
Washington Department of Archaeology and Historic Preservation
PO Box 48343
Olympia, WA 98504-8343

**Subject: Sound Transit - Downtown Redmond Link Extension
Additional Survey Plan and Revised Area of Potential Effect for Review
East Link Light Rail Project, Segment E
DAHP Log: 090806-11-FTA**

Dear Dr. Brooks,

In our letter dated April 5, 2017, FTA reinitiated Section 106 consultation for the Sound Transit Downtown Redmond Link Extension, formally known as Segment E of the East Link Light Rail Project, with the Washington Department of Archaeology and Historic Preservation (DAHP). Since that time, Sound Transit has made additional design changes that require a revision to the Area of Potential Effects (APE), and completed archaeological surveys. FTA and Sound Transit would like to inform you of changes to the APE and the results of the archaeological surveys.

June 2017 Archaeological Survey

Sound Transit's consultant, Historical Research Associates, Inc. (HRA), conducted archaeological investigations within the Marymoor Park Survey Area in June of 2017. The methods and results of these investigations are detailed in the report Downtown Redmond Link Extension, Additional Survey Plan, dated August 18, 2017, which is attached to this letter for your review. As described in this report, HRA used two methods for these excavations. Under the first method, a 30-centimeter (cm)-diameter mechanical auger excavated every 10 meters (m) along the north boundary of Marymoor Park, from the western margin of the park to a wetland near the center of the park. The mechanical auger was advanced approximately 20 cm at a time, with the sediments screened at each depth interval. Under the second method, a 20-cm-diameter hand auger was used to excavate every 10 m along the north boundary of Marymoor Park, from the western extent of the wetland mentioned above to the eastern boundary of the park. Additionally, because the mechanical auger at the far western end of the survey area did not reach glacial outwash sediments, the 20-cm-diameter

hand auger was used to extend the depth of these holes. In total, HRA excavated 105 auger holes within the Marymoor Park Survey Area. One cryptocrystalline silicate (CCS) flake (Artifact 2646-1) was encountered within Auger 1, approximately 45 m east of the Sammamish River, and 140 m south of Bear Creek, at a depth of approximately 280 to 290 cm. None of the other auger holes within Marymoor Park or other survey areas in the project APE conducted to date encountered artifacts.

Revised Area of Potential Effect

Because of refinements to the project design, FTA proposes to revise and expand the APE in specific locations to accommodate the current project definition. The APE revisions are depicted on the attached map (see Figure 1) and include the following:

- Modification of the SR 520 westbound on-ramp and SR 202 (Redmond Way) interchange.
In cooperation with WSDOT and the City of Redmond, Sound Transit has modified the preliminary design of this interchange to provide a ramp configuration that is acceptable to these organizations, and that meets WSDOT's design requirements. The design modifications necessitate a rise in the grade of SR 202, and potential replacement of the bridge over Bear Creek. To accommodate this modification, FTA proposes to expand the APE boundary north to include SR 202 and a short section of NE 76th Street, which would be adjusted to tie into the new grade of SR 202. The revised APE boundary also includes the SR 520 westbound on-ramp.
- Widening of NE 70th Street.
To provide access to the SE Redmond Station, NE 70th Street would be widened to accommodate vehicle and bus traffic, a cycle track, and sidewalks. To incorporate this design modification, FTA proposes to expand the APE east from the SE Redmond Station to SR 202.
- Downtown Redmond Station.
The Downtown Redmond Station location has been shifted to the southeast from the original design. The current proposed station location spans 166th Avenue NE. To accommodate this design change, FTA proposes to extend the APE slightly at the eastern corner of the station footprint area.

Figure 1 shows the expanded APE as shaded areas. Figure 1 also depicts the previous shovel probes and the planned geotechnical bore locations. Please note, this updated APE map replaces the map submitted with the April 5, 2017 Section 106 correspondence mentioned above.

Next Steps

Sound Transit and FTA propose to conduct additional surveys around Auger 1 (where the CCS flake was discovered) to gain additional information. In addition, we propose additional surveys in the expanded APE. The attached Additional Survey Plan describes proposed fieldwork and laboratory methods. FTA and Sound Transit request your review of the plan within 30 days of receipt of this letter.

The plan is also being provided to interested tribes and Phil LeTourneau at King County's Department of Natural Resources for their review. We hope to finalize the plan and begin the

additional surveys as soon as possible to allow time for adequate consultation and minimize impacts to the project schedule.

Consistent with the methods described in the Archaeological Survey Plan provided in our April 5, 2017 correspondence, Sound Transit's consultant, HRA, will complete Stage 2 surveys with shovel probes in areas along Bear Creek north of Redmond Way, and along the SR 520 westbound on ramp in the area of the expanded APE once site access is secured.

Please contact us as soon as possible if you have questions about the project or comments on the Additional Survey Plan or revised APE. The FTA contact is John Witmer at 206/220-7964 or john.witmer@dot.gov. The Sound Transit contact is Lauren Swift at 206/398-5301 or lauren.swift@soundtransit.org.

Sincerely,

AMY M. CHANGCHIEN

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Date: 2017.10.16 16:45:31 -07'00'

Amy Changchien
Director, Office of Planning and Program Development

cc: Matthew Sterner, DAHP

Attachments: Downtown Redmond Link Extension, Additional Survey Plan, August 18, 2017
Figure 1, Downtown Redmond Link Extension Expanded Area of Potential Effect



U.S. Department
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**Federal Transit
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Alaska, Idaho, Oregon,
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206-220-7954
206-220-7959 (fax)

October 17, 2017

The Honorable Virginia Cross, Chair
Muckleshoot Indian Tribe
39015 172nd Ave SE
Auburn, WA 98092

**Re: Sound Transit - Downtown Redmond Link Extension
Additional Survey Plan and Revised Area of Potential Effect for Review
East Link Light Rail Project, Segment E**

Dear Chairperson Cross:

In our letter dated March 28, 2017, the Federal Transit Administration (FTA) reinitiated Section 106 consultation for the Downtown Redmond Link Extension, formally known as Segment E of the East Link Light Rail project. Since re-initiating consultation, Sound Transit has made additional design changes that require a revision to the Area of Potential Effect (APE) and completed archaeological surveys. FTA and Sound Transit would like to inform you of changes to the APE and the results of the archaeological surveys.

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Please contact us as soon as possible if you have questions about the project or comments on the Additional Survey Plan or revised APE. The FTA contact is John Witmer at 206/220-7964 or john.witmer@dot.gov. The Sound Transit contact is Lauren Swift at 206/398-5301 or lauren.swift@soundtransit.org.

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DN: c=US, o=U.S. Government,
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Date: 2017.10.17 14:22:33 -07'00'

Linda M. Gehrke
Regional Administrator

cc: Laura Murphy, Archaeologist, Muckleshoot Indian Tribe

Attachments: Downtown Redmond Link Extension Draft Additional Survey Plan
Revised Area of Potential Effect Map



U.S. Department
of Transportation
**Federal Transit
Administration**

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915 Second Avenue
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Seattle, WA 98174-1002
206-220-7954
206-220-7959 (fax)

October 17, 2017

The Honorable Bill Sterud, Chairman
Puyallup Tribe of the Puyallup Reservation
3009 Portland Ave
Tacoma, WA 98404

**Re: Sound Transit - Downtown Redmond Link Extension
Additional Survey Plan and Revised Area of Potential Effect for Review
East Link Light Rail Project, Segment E**

Dear Chairman Sterud:

In our letter dated March 28, 2017, the Federal Transit Administration (FTA) reinitiated Section 106 consultation for the Downtown Redmond Link Extension, formally known as Segment E of the East Link Light Rail project. Since re-initiating consultation, Sound Transit has made additional design changes that require a revision to the Area of Potential Effect (APE) and completed archaeological surveys. FTA and Sound Transit would like to inform you of changes to the APE and the results of the archaeological surveys.

June 2017 Archaeological Survey

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south of Bear Creek, at a depth of approximately 280 to 290 cm. None of the other auger holes within Marymoor Park or other survey areas in the project APE conducted to date encountered artifacts.

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In cooperation with WSDOT and the City of Redmond, Sound Transit has modified the preliminary design of this interchange to provide a ramp configuration that is acceptable to these organizations, and that meets WSDOT's design requirements. The design modifications necessitate a rise in the grade of SR 202, and potential replacement of the bridge over Bear Creek. To accommodate this modification, FTA proposes to expand the APE boundary north to include SR 202 and a short section of NE 76th Street, which would be adjusted to tie into the new grade of SR 202. The revised APE boundary also includes the SR 520 westbound on-ramp.
- Widening of NE 70th Street.
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Please contact us as soon as possible if you have questions about the project or comments on the Additional Survey Plan or revised APE. The FTA contact is John Witmer at 206/220-7964 or john.witmer@dot.gov. The Sound Transit contact is Lauren Swift at 206/398-5301 or lauren.swift@soundtransit.org.

Sincerely,

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GEHRKE**

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Date: 2017.10.17 14:26:41 -07'00'

Linda M. Gehrke
Regional Administrator

cc: Brandon Reynon, THPO, Puyallup Tribe

Attachments: Downtown Redmond Link Extension Draft Additional Survey Plan
Revised Area of Potential Effect Map



U.S. Department
of Transportation
**Federal Transit
Administration**

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Washington

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October 17, 2017

The Honorable Sunny Clear, Chairwoman
Snoqualmie Indian Tribe
PO Box 969
Snoqualmie, WA 98065

**Re: Sound Transit - Downtown Redmond Link Extension
Additional Survey Plan and Revised Area of Potential Effect for Review
East Link Light Rail Project, Segment E**

Dear Chairwoman Clear:

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Linda M. Gehrke
Regional Administrator

cc: Steven Mullen Moses, Cultural Resource Director, Snoqualmie Tribe

Attachments: Downtown Redmond Link Extension Draft Additional Survey Plan
Revised Area of Potential Effect Map



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October 17, 2017

The Honorable Shawn Yanity, Tribal Chair
Stillaguamish Tribe of Indians of Washington
PO Box 277
Arlington, WA 98223

**Re: Sound Transit - Downtown Redmond Link Extension
Additional Survey Plan and Revised Area of Potential Effect for Review
East Link Light Rail Project, Segment E**

Dear Chairman Yanity:

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Linda M. Gehrke
Regional Administrator

Attachments: Downtown Redmond Link Extension Additional Survey Plan
Revised Area of Potential Effect Map

cc: Kerry Lyste, THPO, Stillaguamish Tribe of Indians



U.S. Department
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October 17, 2017

The Honorable Leonard Forsman, Chairman
Suquamish Indian Tribe of the Port Madison Reservation
PO Box 498
Suquamish, WA 98392

**Re: Sound Transit - Downtown Redmond Link Extension
Additional Survey Plan and Revised Area of Potential Effect for Review
East Link Light Rail Project, Segment E**

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Linda M. Gehrke
Regional Administrator

cc: Dennis Lewarch, THPO

Attachments: Downtown Redmond Link Extension Draft Additional Survey Plan
Revised Area of Potential Effects Map



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October 17, 2017

The Honorable Marie Zackuse, Chairwoman
Tulalip Tribes of Washington
6406 Marine Dr.
Tulalip, WA 98271

**Re: Sound Transit - Downtown Redmond Link Extension
Additional Survey Plan and Revised Area of Potential Effect for Review
East Link Light Rail Project, Segment E**

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Linda M. Gehrke
Regional Administrator

cc: Richard Young, THPO, Tulalip Tribes

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October 17, 2017

The Honorable JoDe L. Goudy, Chairman
Confederated Tribes and Bands of the Yakama Nation
PO Box 151
Toppenish, WA 98948

**Re: Sound Transit - Downtown Redmond Link Extension
Additional Survey Plan and Revised Area of Potential Effect for Review
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In cooperation with WSDOT and the City of Redmond, Sound Transit has modified the preliminary design of this interchange to provide a ramp configuration that is acceptable to these organizations, and that meets WSDOT's design requirements. The design modifications necessitate a rise in the grade of SR 202, and potential replacement of the bridge over Bear Creek. To accommodate this modification, FTA proposes to expand the APE boundary north to include SR 202 and a short section of NE 76th Street, which would be adjusted to tie into the new grade of SR 202. The revised APE boundary also includes the SR 520 westbound on-ramp.
- Widening of NE 70th Street.
To provide access to the SE Redmond Station, NE 70th Street would be widened to accommodate vehicle and bus traffic, a cycle track, and sidewalks. To incorporate this design modification, FTA proposes to expand the APE east from the SE Redmond Station to SR 202.
- Downtown Redmond Station.
The Downtown Redmond Station location has been shifted to the southeast from the original design. The current proposed station location spans 166th Avenue NE. To accommodate this design change, FTA proposes to extend the APE slightly at the eastern corner of the station footprint area.

Figure 1 shows the expanded APE as shaded areas. Figure 1 also depicts the previous shovel probes and the planned geotechnical bore locations. Please note, this updated APE map replaces the map submitted with the April 5, 2017 Section 106 correspondence mentioned above.

Next Steps

Sound Transit and FTA propose to conduct additional surveys around Auger 1 (where the CCS flake was discovered) to gain additional information. In addition, we propose additional surveys in the expanded APE. The attached Additional Survey Plan describes proposed fieldwork and laboratory methods. FTA and Sound Transit request your review of the plan within 30 days of receipt of this letter.

The plan is also being provided to interested tribes and Phil LeTourneau at King County's Department of Natural Resources for their review. We hope to finalize the plan and begin the additional surveys as soon as possible to allow time for adequate consultation and minimize impacts to the project schedule.

Consistent with the methods described in the Archaeological Survey Plan provided in our previous correspondence, Sound Transit's consultant, HRA, will complete Stage 2 surveys with shovel probes in areas along Bear Creek north of Redmond Way, and along the SR 520 westbound on ramp in the area of the expanded APE once site access is secured.

Please contact us as soon as possible if you have questions about the project or comments on the Additional Survey Plan or revised APE. The FTA contact is John Witmer at 206/220-7964 or john.witmer@dot.gov. The Sound Transit contact is Lauren Swift at 206/398-5301 or lauren.swift@soundtransit.org.

Sincerely,

**LINDA M
GEHRKE**
Digitally signed by LINDA M
GEHRKE
DN: c=US, o=U.S. Government,
ou=FTA FTASeattleWA, ou=DOT
FTASeattleWA, cn=LINDA M
GEHRKE
Date: 2017.10.17 14:35:05 -0700'

Linda M. Gehrke
Regional Administrator

cc: Kate Valdez, THPO, Confederated Tribes and Bands of the Yakama Indian Nation
David Powell, Archaeologist

Attachments: Downtown Redmond Link Extension Additional Survey Plan
Revised Area of Potential Effect Map



October 23, 2017

The Honorable Cecile Hansen, Tribal Chair
Duwamish Tribe
4705 W Marginal Way SW
Seattle, WA 98106

Re: Additional Archaeological Survey for Segment E (Downtown Redmond Extension) of the East Link Light Rail Project

Dear Chairwoman Hansen:

In its letter dated March 29, 2017, Sound Transit initiated consultation for the Downtown Redmond Link Extension, formally known as Segment E of the East Link Light Rail project. Due to changed conditions since the Sound Transit Board's selection of the East Link project, Sound Transit is refining the project selected. Since the archaeological inventory for the East Link EIS was conducted, additional information on archaeological resources in the vicinity of the Downtown Redmond Link Extension has been gathered. In particular, the Bear Creek Site has been further defined and investigated. As part of the refinement process and update of environmental review, Sound Transit conducted archeological survey consistent with the survey plan and inadvertent discovery plan included in the March 29, 2017 transmittal in June 2017.

June 2017 Archaeological Survey

Historical Research Associates, Inc. (HRA) conducted archaeological investigations within the Marymoor Park Survey Area in June of 2017 use two methods. A 30-centimeter (cm)-diameter mechanical auger was utilized to excavate every 10 meters (m) along the north boundary of Marymoor Park from near the western margin of the park to a wetland near the center of the park. The mechanical auger was advanced approximately 20 cm at a time with the sediments screened at each depth interval. A 20-cm-diameter hand auger was used to excavate every 10 m along the north boundary of Marymoor Park, from the western extent of the wetland to the eastern boundary of the park. Additionally, because the mechanical augers at the far western end of the survey area did not reach glacial outwash sediments, the 20-cm-diameter hand auger was used to extend the depth of these holes. In total, HRA excavated 105 augers within the Marymoor Park Survey Area. One CCS flake (Artifact 2646-1) was encountered within Auger 1, approximately 45 m east of the Sammamish River and 140 m south of Bear Creek, at a depth of approximately 280 to 290 cm. The attached Additional Survey Plan provides more detail on the survey methods and results. None of the other augers within Marymoor Park or other survey areas in the project APE conducted to date encountered artifacts.

CHAIR

Dave Somers
Snohomish County Executive

VICE CHAIRS

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Redmond Mayor

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Tacoma Mayor

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Roger Millar
Washington State Secretary of Transportation

Mary Moss
Lakewood Councilmember

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Peter von Reichbauer
King County Councilmember

CHIEF EXECUTIVE OFFICER

Peter M. Rogoff

Revised Area of Potential Effect

As design has advanced, revealing some necessary changes to the Area of Potential Effect (APE). The project will remain in the same general corridor with the following refinements to include improvements to adjacent roads and ramps:

- Modification of the SR 520 westbound on-ramp and SR 202 (Redmond Way)
In cooperation with WSDOT and the City of Redmond, preliminary design of this interchange has been modified to provide a ramp configuration that is acceptable and meets WSDOT's design requirements. The design modifications necessitate a rise in the grade of SR 202 and potential replacement of the bridge over Bear Creek, expanding the APE boundary north to include SR 202 and a short section of NE 76th Street, which would be adjusted to tie into the new grade of SR 202. The design modifications also extend the APE boundary to include the SR 520 westbound on-ramp.
- Widening of NE 70th Street
To provide access to the SE Redmond Station, NE 70th Street will be widened to accommodate vehicle and bus traffic, a cycle track, and sidewalks. This expands the APE east from the SE Redmond Station to SR 202.
- Downtown Redmond Station
The Downtown Redmond Station location is proposed to span 166th Avenue NE, which extends the APE slightly at the eastern corner of the potential station footprint area.

The enclosed map shows the revised APE along with the previous shovel probe and the planned geotechnical bore locations. This updated figure replaces the figure submitted in March 2017.

Next Steps

Sound Transit and FTA propose additional survey in the area of Auger 1 to gain additional information to support a significance determination. The attached Additional Survey Plan describes proposed fieldwork and laboratory methods. Sound Transit requests the Tribe's review of the draft plan. We hope to finalize the plan and begin the additional survey as soon as possible to allow time for adequate consultation and minimize impacts to the project schedule. After 30 days, the plan will be finalized based on comments received.

Consistent with the methods described in the Archaeological Survey Plan provided in March, HRA also will complete Stage 2 survey with shovel probes in areas along Bear Creek north of Redmond Way and along the SR 520 westbound on ramp in the area of the expanded APE once site access is secured.

Please contact me as soon as possible at 206/398-5301 or lauren.swift@soundtransit.org if you have questions about the project or comments on the Draft Additional Survey Plan.

Sincerely,



Lauren Swift, Senior Environmental Planner

Attachments: Downtown Redmond Link Extension Additional Survey Plan
Revised Area of Potential Effect Map



October 23, 2017

The Honorable Mike Evans, Chairman
Snohomish Tribe of Indians
9792 Edmonds Way #267
Edmonds, WA 98020

Re: Additional Archaeological Survey for Segment E (Downtown Redmond Extension) of the East Link Light Rail Project

Dear Chairman Evans:

In its letter dated March 29, 2017, Sound Transit initiated consultation for the Downtown Redmond Link Extension, formally known as Segment E of the East Link Light Rail project. Due to changed conditions since the Sound Transit Board's selection of the East Link project, Sound Transit is refining the project selected. Since the archaeological inventory for the East Link EIS was conducted, additional information on archaeological resources in the vicinity of the Downtown Redmond Link Extension has been gathered. In particular, the Bear Creek Site has been further defined and investigated. As part of the refinement process and update of environmental review, Sound Transit conducted archeological survey consistent with the survey plan and inadvertent discovery plan included in the March 29, 2017 transmittal in June 2017.

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Peter von Reichbauer

King County Councilmember

CHIEF EXECUTIVE OFFICER

Peter M. Rogoff

Revised Area of Potential Effect

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Next Steps

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Please contact me as soon as possible at 206/398-5301 or lauren.swift@soundtransit.org if you have questions about the project or comments on the Draft Additional Survey Plan.

Sincerely,



Lauren Swift, Senior Environmental Planner

Attachments: Downtown Redmond Link Extension Additional Survey Plan
Revised Area of Potential Effect Map



Allyson Brooks Ph.D., Director
State Historic Preservation Officer

October 25, 2017

Mr. John Witmer
Federal Transit Administration
915 Second Avenue
Federal Building, Suite 3142
Seattle, WA 98174-1002

In future correspondence please refer to:
Project Tracking Code: 090806-11-FTA
Property: East Link Project, Seattle to Bellevue to Redmond
Re: Revised APE Concur, Approved Additional Survey Plan

Dear Mr. Witmer:

Thank you for contacting the State Historic Preservation Officer (SHPO) and Department of Archaeology and Historic Preservation (DAHP) regarding the East Link Project, Seattle to Bellevue to Redmond project. I have reviewed your description and map of the revised area of potential effect (APE). I agree with your definition of the revised APE. I have also reviewed the additional survey plan attached to your email and agree with the approach described. Along with the results of the survey once it is completed, we will need to review your consultation with the concerned tribes, and other interested/affected parties. Please provide any correspondence or comments from concerned tribes and/or other parties that you receive as you consult under the requirements of 36 CFR 800.4(a)(4).

These comments are based on the information available at the time of this review and on behalf of the SHPO in conformance with Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR 800. Should additional information about the project become available, our assessment may be revised.

Finally, please note that in order to streamline responses, DAHP requires that all documents related to project reviews be submitted electronically. Correspondence, reports, notices, photos, etc. must now be submitted in PDF or JPG format. For more information about how to submit documents to DAHP please visit: <http://www.dahp.wa.gov/programs/shpo-compliance>. To assist you in conducting a cultural resource survey and inventory effort, DAHP has developed guidelines including requirements for survey reports. You can view or download a copy from our website.

Thank you for the opportunity to review and comment. Should you have any questions, please feel free to contact me.

Sincerely,

Matthew Sterner, M.A.
Transportation Archaeologist
(360) 586-3082
matthew.sterner@dahp.wa.gov





Allyson Brooks Ph.D., Director
State Historic Preservation Officer

April 25, 2018

Mr. Mark Assam
Federal Transit Administration
915 Second Avenue
Federal Building, Suite 3142
Seattle, WA 98174-1002

In future correspondence please refer to:
Project Tracking Code: 090806-11-FTA
Property: East Link Project, Seattle to Bellevue to Redmond
Re: No Adverse Effect

Dear Mr. Assam:

Thank you for contacting the State Historic Preservation Officer (SHPO) and Department of Archaeology and Historic Preservation (DAHP) and submitting the "Historic and Archaeological Resources Technical Report Addendum," completed by HRA, for the East Link Extension portion of the East Link project. This report has been reviewed on behalf of the SHPO under provisions of Section 106 of the National Historic Preservation Act of 1966 (as amended) and 36 CFR Part 800.

First, I concur that the current project, as proposed, will have no adverse effect on historic properties within the APE that are listed in, or determined eligible for listing in, the National Register of Historic Places (NRHP). We have reviewed the three built environment resources submitted for review (the Gregory Drilling Office, the Bill Brown Building, and the railroad trestle associated with the former Seattle, Lake Shore & Eastern railroad), and concur that they are not eligible for listing in the NRHP. Likewise, I concur that the archaeological resource identified during investigations at Marymoor Park (45K11365), represents displaced archaeological materials and is not eligible for listing in the NRHP.

As a result of our concurrence, further contact with DAHP on this proposal is not necessary. However, if new information about affected resources becomes available and/or the project scope of work changes significantly, please resume consultation as our assessment may be revised. Also, if any archaeological resources are uncovered during construction, please halt work immediately in the area of discovery and contact the appropriate Native American Tribes and DAHP for further consultation.

Finally, please note that in order to streamline our responses, DAHP requires that all documents related to project reviews be submitted electronically. Correspondence, reports, notices, photos, etc. must now be submitted in PDF or JPG format. For more information about how to submit documents to DAHP please visit: <http://www.dahp.wa.gov/programs/shpo-compliance>. To assist you in conducting a cultural resource survey and inventory effort, DAHP has developed guidelines including requirements for survey reports. You can view or download a copy from our website.



Thank you for the opportunity to review and comment. If you have any questions, please feel free to contact me.

Sincerely,



Matthew Sterner, M.A.
Transportation Archaeologist
(360) 586-3082
matthew.sterner@dahp.wa.gov



Attachment D.3

Archaeological Site Forms

Forms have been redacted.

Attachment D.4

Site 45K11365 Artifact Catalog

Site K113565 Artifact Catalog

HRA Lot	HRA Catalog	Burke Catalog	Description	Material Type	Unit	Level	Stratum	Depth (cmbd)	Count	Collector	Collection Date	Box
1	1		Debitage	CCS	Auger 1	-	-	290-310	1	S. Davis	12/4/2017	1
2	2		Debitage	Fine-grained other	EU 1	5	4e	280-290	1	S. Davis	12/7/2017	1
3	3		Debitage	CCS	EU 1	8	4f	310-320	1	S. Davis	12/8/2017	1
3	4		Shell	Unmodified	EU 1	8	4f	310-320	1	S. Davis	12/8/2017	1
4	6		Debitage	CCS	EU 1	8	4f/5a	310-320	1	S. Davis	12/8/2017	1
5	7		Debitage	CCS	EU 1	10	5a	330-340	2	S. Davis	12/9/2017	1
11	14		Unknown	Glass	EU 1	12	5a	350-360	1	S. Davis	12/10/2017	1

Attachment D.5

Radiocarbon Report



Beta Analytic
RADIOCARBON DATING

Beta Analytic Inc
4985 SW 74 Court
Miami, Florida 33155
Tel: 305-667-5167
Fax: 305-663-0964
beta@radiocarbon.com

Mr. Darden Hood
President

Mr. Ronald Hatfield
Mr. Christopher Patrick
Deputy Directors

ISO/IEC 2005:17025-Accredited Testing Laboratory

December 18, 2017

Ms. Jennifer Gilpin
Historical Research Associates, Inc.
1904 Third Avenue
Suite 240
Seattle, WA 98101
USA

RE: Radiocarbon Dating Results

Dear Ms. Gilpin,

Enclosed is the radiocarbon dating result for one sample recently sent to us. As usual, specifics of the analysis are listed on the report with the result and calibration data is provided where applicable. The Conventional Radiocarbon Age has been corrected for total fractionation effects and where applicable, calibration was performed using 2013 calibration databases (cited on the graph pages).

The web directory containing the table of results and PDF download also contains pictures, a cvs spreadsheet download option and a quality assurance report containing expected vs. measured values for 3-5 working standards analyzed simultaneously with your samples.

The reported result is accredited to ISO/IEC 17025:2005 Testing Accreditation PJLA #59423 standards and all pretreatments and chemistry were performed here in our laboratories and counted in our own accelerators here in Miami. Since Beta is not a teaching laboratory, only graduates trained to strict protocols of the ISO/IEC 17025:2005 Testing Accreditation PJLA #59423 program participated in the analysis.

As always Conventional Radiocarbon Ages and sigmas are rounded to the nearest 10 years per the conventions of the 1977 International Radiocarbon Conference. When counting statistics produce sigmas lower than +/- 30 years, a conservative +/- 30 BP is cited for the result. The reported d13C was measured separately in an IRMS (isotope ratio mass spectrometer). It is NOT the AMS d13C which would include fractionation effects from natural, chemistry and AMS induced sources.

When interpreting the result, please consider any communications you may have had with us regarding the sample. As always, your inquiries are most welcome. If you have any questions or would like further details of the analysis, please do not hesitate to contact us.

Thank you for prepaying the analyses. As always, if you have any questions or would like to discuss the results, don't hesitate to contact us.

Sincerely ,

Darden Hood
Digital signature on file



REPORT OF RADIOCARBON DATING ANALYSES

Jennifer Gilpin

Report Date: December 18, 2017

Historical Research Associates, Inc.

Material Received: December 12, 2017

Laboratory Number

Sample Code Number

Conventional Radiocarbon Age (BP) or
Percent Modern Carbon (pMC) & Stable Isotopes

Calendar Calibrated Results: 95.4 % Probability
High Probability Density Range Method (HPD)

Beta - 481964

2646-12

7620 +/- 30 BP

IRMS $\delta^{13}C$: -28.2 o/oo

(95.0%) 6508 - 6424 cal BC (8457 - 8373 cal BP)
(0.4%) 6556 - 6552 cal BC (8505 - 8501 cal BP)

Submitter Material: Organics

Pretreatment: (wood) acid/alkali/acid

Analyzed Material: Wood

Analysis Service: AMS-Standard delivery

Percent Modern Carbon: 38.73 +/- 0.14 pMC

Fraction Modern Carbon: 0.3873 +/- 0.0014

D14C: -612.72 +/- 1.45 o/oo

$\Delta^{14}C$: -615.84 +/- 1.45 o/oo(1950:2017)

Measured Radiocarbon Age: (without $\delta^{13}C$ correction): 7670 +/- 30 BP

Calibration: BetaCal3.21: HPD method: INTCAL13

Results are ISO/IEC-17025:2005 accredited. No sub-contracting or student labor was used in the analyses. All work was done at Beta in 4 in-house NEC accelerator mass spectrometers and 4 Thermo IRMSs. The "Conventional Radiocarbon Age" was calculated using the Libby half-life (5568 years), is corrected for total isotopic fraction and was used for calendar calibration where applicable. The Age is rounded to the nearest 10 years and is reported as radiocarbon years before present (BP), "present" = AD 1950. Results greater than the modern reference are reported as percent modern carbon (pMC). The modern reference standard was 95% the ^{14}C signature of NIST SRM-4990C (oxalic acid). Quoted errors are 1 sigma counting statistics. Calculated sigmas less than 30 BP on the Conventional Radiocarbon Age are conservatively rounded up to 30. $\delta^{13}C$ values are on the material itself (not the AMS $\delta^{13}C$). $\delta^{13}C$ and $\delta^{15}N$ values are relative to VPDB-1. References for calendar calibrations are cited at the bottom of calibration graph pages.

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL13)

(Variables: $\delta^{13}\text{C} = -28.2$ o/oo)

Laboratory number **Beta-481964**

Conventional radiocarbon age **7620 \pm 30 BP**

95.4% probability

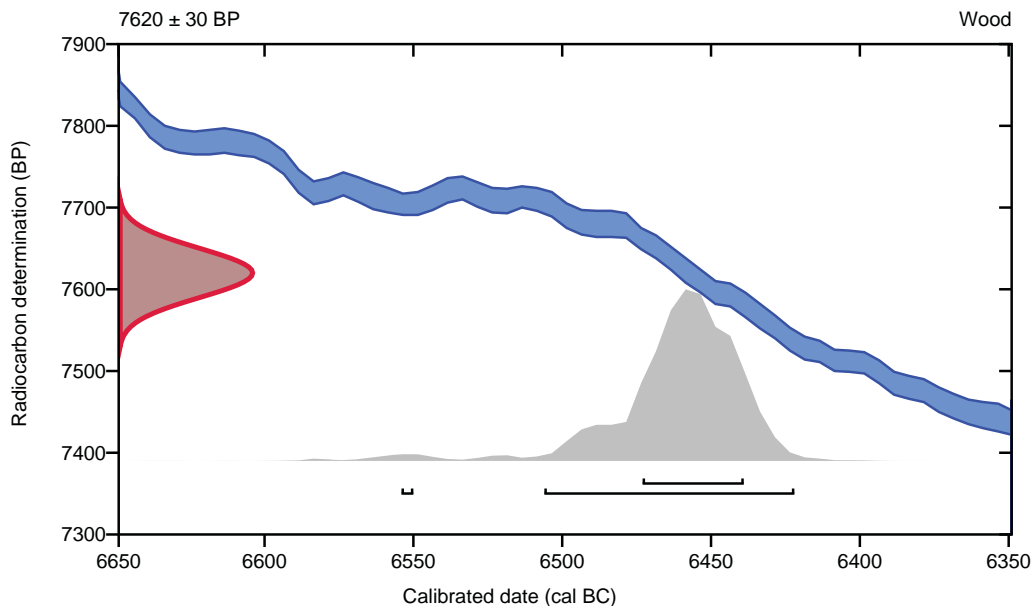
(95%) 6508 - 6424 cal BC (8457 - 8373 cal BP)

(0.4%) 6556 - 6552 cal BC (8505 - 8501 cal BP)

68.2% probability

(68.2%) 6475 - 6441 cal BC (8424 - 8390 cal BP)

2646-12



Database used

INTCAL13

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. *Radiocarbon*, 51(1), 337-360.

References to Database INTCAL13

Reimer, et.al., 2013, *Radiocarbon*55(4).



Beta Analytic
RADIOCARBON DATING

Beta Analytic Inc
4985 SW 74 Court
Miami, Florida 33155
Tel: 305-667-5167
Fax: 305-663-0964
beta@radiocarbon.com

Mr. Darden Hood
President

Mr. Ronald Hatfield
Mr. Christopher Patrick
Deputy Directors

ISO/IEC 2005:17025-Accredited Testing Laboratory

January 12, 2018

Dr. Michele Punke
HRA
1825 SE 7th Avenue
Portland, OR 97214
USA

RE: Radiocarbon Dating Results

Dear Dr. Punke,

Enclosed are the radiocarbon dating results for two samples recently sent to us. As usual, the method of analysis is listed on the report with the results and calibration data is provided where applicable. The Conventional Radiocarbon Ages have all been corrected for total fractionation effects and where applicable, calibration was performed using 2013 calibration databases (cited on the graph pages).

The web directory containing the table of results and PDF download also contains pictures, a cvs spreadsheet download option and a quality assurance report containing expected vs. measured values for 3-5 working standards analyzed simultaneously with your samples.

Reported results are accredited to ISO/IEC 17025:2005 Testing Accreditation PJLA #59423 standards and all chemistry was performed here in our laboratory and counted in our own accelerators here. Since Beta is not a teaching laboratory, only graduates trained to strict protocols of the ISO/IEC 17025:2005 Testing Accreditation PJLA #59423 program participated in the analyses.

As always Conventional Radiocarbon Ages and sigmas are rounded to the nearest 10 years per the conventions of the 1977 International Radiocarbon Conference. When counting statistics produce sigmas lower than +/- 30 years, a conservative +/- 30 BP is cited for the result. The reported d13C values were measured separately in an IRMS (isotope ratio mass spectrometer). They are NOT the AMS d13C which would include fractionation effects from natural, chemistry and AMS induced sources.

When interpreting the results, please consider any communications you may have had with us regarding the samples.

Thank you for prepaying the analyses. As always, if you have any questions or would like to discuss the results, don't hesitate to contact us.

Sincerely ,



Darden Hood
Digital signature on file



REPORT OF RADIOCARBON DATING ANALYSES

Michele Punke

Report Date: January 12, 2018

HRA

Material Received: January 02, 2018

Laboratory Number	Sample Code Number	Conventional Radiocarbon Age (BP) or Percent Modern Carbon (pMC) & Stable Isotopes	
		Calendar Calibrated Results: 95.4 % Probability High Probability Density Range Method (HPD)	
Beta - 483851	2646-11	1730 +/- 30 BP	IRMS δ13C: -29.5 o/oo

(95.4%) 242 - 386 cal AD (1708 - 1564 cal BP)

Submitter Material: Organics
 Pretreatment: (plant material) acid/alkali/acid
 Analyzed Material: Plant material
 Analysis Service: AMS-Standard delivery
 Percent Modern Carbon: 80.62 +/- 0.30 pMC
 Fraction Modern Carbon: 0.8062 +/- 0.0030
 D14C: -193.75 +/- 3.01 o/oo
 Δ14C: -200.26 +/- 3.01 o/oo(1950:2017)
 Measured Radiocarbon Age: (without d13C correction): 1800 +/- 30 BP
 Calibration: BetaCal3.21: HPD method: INTCAL13

Results are ISO/IEC-17025:2005 accredited. No sub-contracting or student labor was used in the analyses. All work was done at Beta in 4 in-house NEC accelerator mass spectrometers and 4 Thermo IRMSs. The "Conventional Radiocarbon Age" was calculated using the Libby half-life (5568 years), is corrected for total isotopic fraction and was used for calendar calibration where applicable. The Age is rounded to the nearest 10 years and is reported as radiocarbon years before present (BP), "present" = AD 1950. Results greater than the modern reference are reported as percent modern carbon (pMC). The modern reference standard was 95% the 14C signature of NIST SRM-4990C (oxalic acid). Quoted errors are 1 sigma counting statistics. Calculated sigmas less than 30 BP on the Conventional Radiocarbon Age are conservatively rounded up to 30. d13C values are on the material itself (not the AMS d13C). d13C and d15N values are relative to VPDB-1. References for calendar calibrations are cited at the bottom of calibration graph pages.



REPORT OF RADIOCARBON DATING ANALYSES

Michele Punke

Report Date: January 12, 2018

HRA

Material Received: January 02, 2018

Laboratory Number

Sample Code Number

Conventional Radiocarbon Age (BP) or
Percent Modern Carbon (pMC) & Stable Isotopes

Calendar Calibrated Results: 95.4 % Probability
High Probability Density Range Method (HPD)

Beta - 483852

2646-24

8430 +/- 30 BP

IRMS $\delta^{13}C$: -27.5 o/oo

(95.4%) 7574 - 7473 cal BC (9523 - 9422 cal BP)

Submitter Material: Organics

Pretreatment: (plant material) acid/alkali/acid

Analyzed Material: Plant material

Analysis Service: AMS-Standard delivery

Percent Modern Carbon: 35.01 +/- 0.13 pMC

Fraction Modern Carbon: 0.3501 +/- 0.0013

D14C: -649.86 +/- 1.31 o/oo

$\Delta^{14}C$: -652.69 +/- 1.31 o/oo(1950:2017)

Measured Radiocarbon Age: (without $\delta^{13}C$ correction): 8470 +/- 30 BP

Calibration: BetaCal3.21: HPD method: INTCAL13

Results are ISO/IEC-17025:2005 accredited. No sub-contracting or student labor was used in the analyses. All work was done at Beta in 4 in-house NEC accelerator mass spectrometers and 4 Thermo IRMSs. The "Conventional Radiocarbon Age" was calculated using the Libby half-life (5568 years), is corrected for total isotopic fraction and was used for calendar calibration where applicable. The Age is rounded to the nearest 10 years and is reported as radiocarbon years before present (BP), "present" = AD 1950. Results greater than the modern reference are reported as percent modern carbon (pMC). The modern reference standard was 95% the ^{14}C signature of NIST SRM-4990C (oxalic acid). Quoted errors are 1 sigma counting statistics. Calculated sigmas less than 30 BP on the Conventional Radiocarbon Age are conservatively rounded up to 30. $\delta^{13}C$ values are on the material itself (not the AMS $\delta^{13}C$). $\delta^{13}C$ and $\delta^{15}N$ values are relative to VPDB-1. References for calendar calibrations are cited at the bottom of calibration graph pages.

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL13)

(Variables: $\delta^{13}\text{C} = -29.5$ o/oo)

Laboratory number Beta-483851

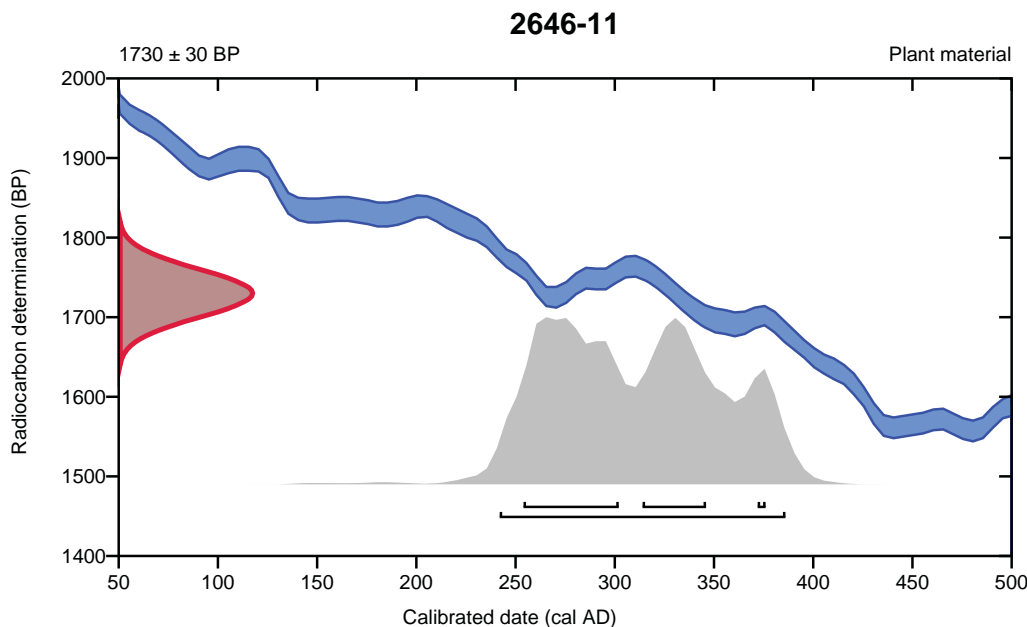
Conventional radiocarbon age 1730 ± 30 BP

95.4% probability

(95.4%) 242 - 386 cal AD (1708 - 1564 cal BP)

68.2% probability

(41%)	254 - 302 cal AD	(1696 - 1648 cal BP)
(25%)	314 - 346 cal AD	(1636 - 1604 cal BP)
(2.2%)	372 - 376 cal AD	(1578 - 1574 cal BP)



Database used
INTCAL13

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. *Radiocarbon*, 51(1), 337-360.

References to Database INTCAL13

Reimer, et.al., 2013, *Radiocarbon*55(4).

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL13)

(Variables: $\delta^{13}C = -27.5$ o/oo)

Laboratory number **Beta-483852**

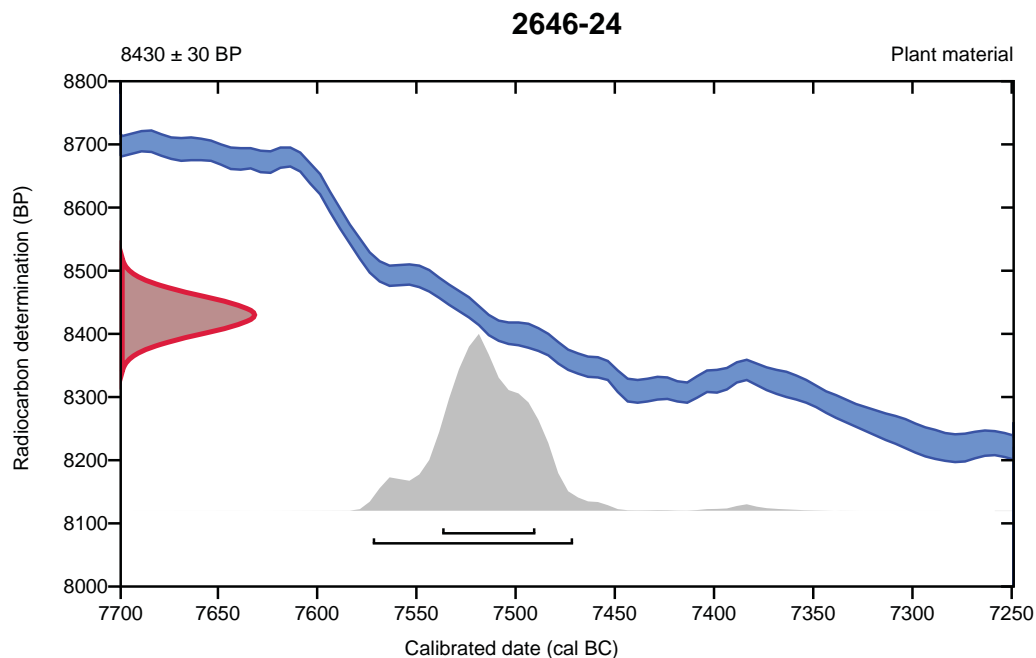
Conventional radiocarbon age **8430 \pm 30 BP**

95.4% probability

(95.4%) 7574 - 7473 cal BC (9523 - 9422 cal BP)

68.2% probability

(68.2%) 7539 - 7492 cal BC (9488 - 9441 cal BP)



Database used
INTCAL13

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL13

Reimer, et.al., 2013, Radiocarbon55(4).



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ISO/IEC 2005:17025-Accredited Testing Laboratory

Quality Assurance Report

This report provides the results of reference materials used to validate radiocarbon analyses prior to reporting. Known-value reference materials were analyzed quasi-simultaneously with the unknowns. Results are reported as expected values vs measured values. Reported values are calculated relative to NIST SRM-4990B and corrected for isotopic fractionation. Results are reported using the direct analytical measure percent modern carbon (pMC) with one relative standard deviation. Agreement between expected and measured values is taken as being within 2 sigma agreement (error x 2) to account for total laboratory error.

Report Date: January 12, 2018
Submitter: Dr. Michele Punke

QA MEASUREMENTS

Reference 1

Expected Value: 0.44 +/- 0.10 pMC
Measured Value: 0.44 +/- 0.03 pMC
Agreement: Accepted

Reference 2

Expected Value: 129.41 +/- 0.06 pMC
Measured Value: 129.73 +/- 0.34 pMC
Agreement: Accepted

Reference 3

Expected Value: 96.69 +/- 0.50 pMC
Measured Value: 96.67 +/- 0.28 pMC
Agreement: Accepted

COMMENT: All measurements passed acceptance tests.

Validation:

Date: January 12, 2018

