

4.16 Historic and Archaeological Resources

4.16.1 Introduction to Resources and Regulatory Requirements

The National Historic Preservation Act of 1966 (NHPA) Section 106 states that any federal or federally assisted project or any project requiring federal licensing or permitting must consider the project's impacts on historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP or National Register), in accordance with 36 CFR Part 800. Properties include historic and prehistoric archaeological sites, as well as districts, buildings, structures, objects, and landscapes, in addition to cultural or traditional places or resources that have value to a community, such as an Indian Tribal group (NHPA Section 101). To consider the potential concerns of Indian Tribes, Sound Transit also reviewed the following:

- American Indian Religious Freedom Act of 1978
- Executive Order (EO) 13007 (access to and/or ceremonial use of sacred sites by Indian religious practitioners)

Also, Section 4(f) of the Department of Transportation Act of 1966 (23 United State Code 138) prohibits the Federal Transit Administration (FTA) from approving a project or program that uses land from a significant public park, recreation area, wildlife or waterfowl refuge, or historic site, with the following exceptions:

- There is no feasible and prudent alternative to the use of the land.
- The project includes all possible planning to minimize harm to the property.

A Section 4(f) evaluation is included in Appendix D of this Final EIS.

The Cities of Seattle, Mercer Island, and Redmond regulate the impacts of projects on historic resources. The City of Bellevue has no applicable ordinances regarding historic resources.

Local regulations that were reviewed during the assessment include the following:

- City of Seattle Landmarks Preservation Ordinance (SMC 25.12) requires that properties eligible for city landmark designation be at least 25 years old and meet at least one of six criteria of significance.
- City of Mercer Island Ordinance No. 05C-09 (amending Ordinance No. 02-16) contains

provisions for historic designation of private and municipal properties 50 years of age or older within the city limits.

- City of Redmond Ordinance No. 2224 contains provisions for historic preservation, including a Redmond Heritage Resource Register, administered by the Landmarks and Heritage Commission. Designation requires that a structure be at least 40 years of age and meet other criteria established by the Commission; archaeological sites also are eligible for designation.

Project historians and archaeologists analyzed 439 buildings or structures and investigated two archaeological sites. Of this total, 12 historic resources have been found to be listed in or eligible for listing in the NRHP. The Federal Transit Administration (FTA), in consultation with the State Historic Preservation Office (SHPO), has made a determination of adverse effect for the project. This determination results from the *preferred alternative's* (B2M and C11A) potential impacts on the Winters House and potential Surrey Downs historic district. Other alternatives would also impact the potential Surrey Downs Historic District and Justice White House.

A separately bounded Appendix H4, Historic and Archaeological Resources Technical Report, provides detail information on these historic resources.

4.16.2 Affected Environment

The FTA and Sound Transit consulted with the Washington State Historic Preservation Officer (SHPO) in the Department of Archaeology and Historic Preservation (DAHP), Washington State Department of Transportation (WSDOT), local jurisdictions, and Indian Tribes during the investigations concerning historic and archaeological resources. In addition, Sound Transit coordinated with staff at the Cities of Seattle, Mercer Island, Bellevue, and Redmond.

Sound Transit and FTA consulted with and received concurrence from DAHP on the Area of Potential Effects (APE) used for this project. The APE is the area within which the project may cause direct or indirect changes to the character of any historic properties. The APE for archaeological resources is limited to the portion of the project where ground-disturbing activities would be conducted, such as areas for demolition, construction, staging, equipment storage locations, and stormwater management facilities (36 CFR 800.16[d]). For the archaeological resource investigation, the vertical extent of the APE may vary according to construction practice—deeper for excavation areas and shallower for at-grade

construction – and depending on the subsurface limits of known human use or occupation where the project feature occurs.

The APE for historical buildings and structures is one block (approximately 200 feet) on each side of the centerline of the project routes (i.e., a total corridor width of approximately 400 feet). The APE extends approximately 200 feet from the outer limits of station locations and maintenance facilities. The APE also includes the area one block from where tunnel alternatives could disturb the ground surface or potentially have other surface impacts, depending on terrain and local land use. Uniquely for bored or mined tunnel construction, the APE for noise, vibration, and settlement impacts is 100 feet on each side of the route centerline (i.e., a total corridor width of approximately 200 feet).

The archaeological sensitive areas and those listed or determined to be eligible historic resources within the study area's APE are shown in Exhibit 4.16-1. Detailed maps are available in the Historic and Archaeological Resources Technical Report (Appendix H4).

4.16.2.1 Archaeological Resources

Two archaeological sites have been recorded near the archaeological resource APE. Archaeological site 45KI8 was recorded in 1966 (Greengo, 1966) near the Redmond Way Alternative (E1). The site was described as consisting of scattered artifact finds along the east bank of the river for about one-half mile, including some finds in dredged material. The condition of the site in 1966 was reported as "completely worked over on surface – no midden [organic remains] visible" (Greengo, 1966).

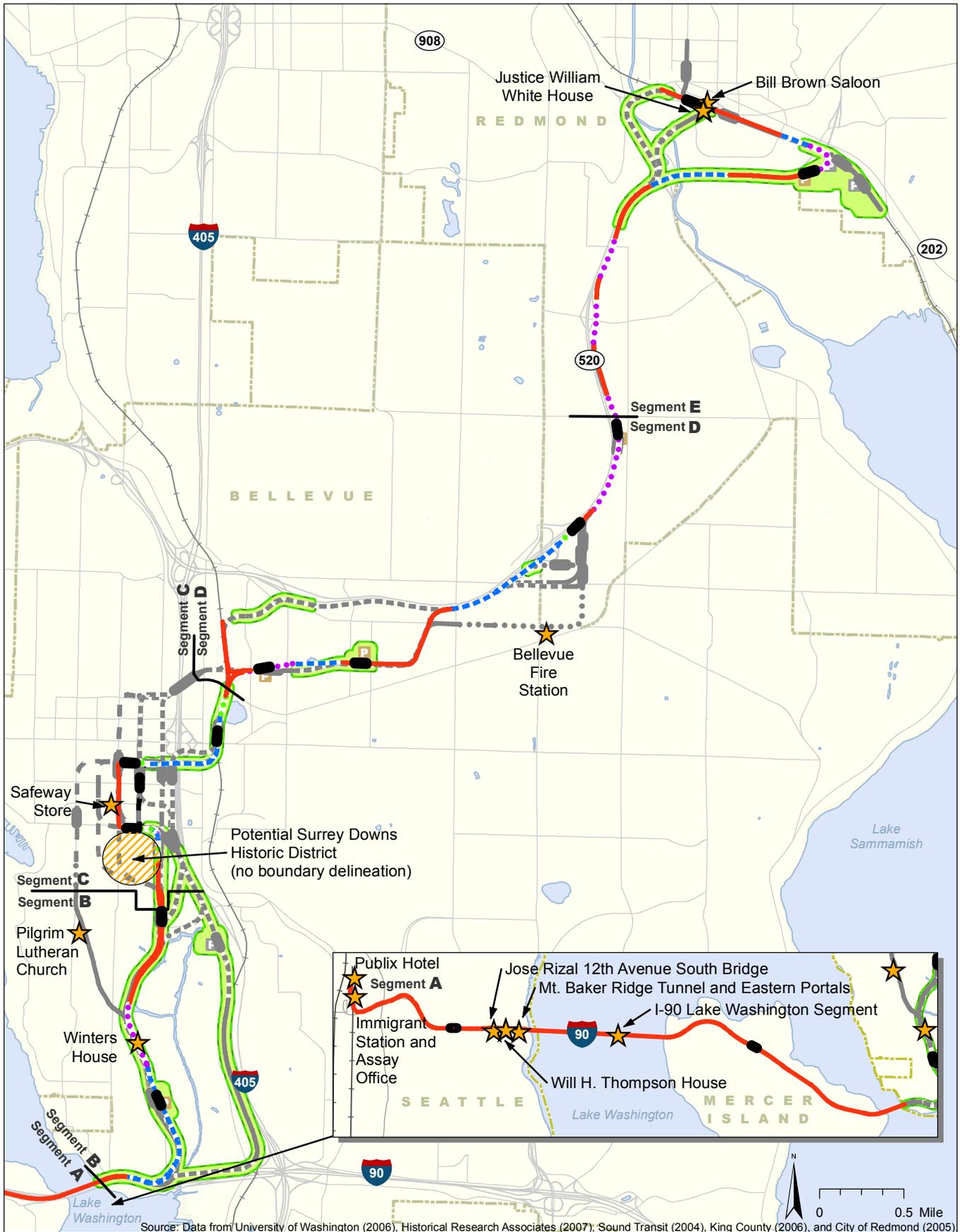
Site 45KI 839 was recorded along lower Bear Creek, near the confluence of Bear Creek with the Sammamish River. The site is buried about 5 feet under the ground surface and consists of several stone tool fragments, stone flakes from tool-making, and fire-cracked rocks that appear to date to several thousand years old (Hodges et al., 2009).

Mapping of landform criteria for archaeological sensitivity identified several portions of the alternatives as having high sensitivity for prehistoric archaeological sites, but did not identify areas with a high sensitivity of important historic-period archaeological sites. The project archaeologist developed maps of areas judged to have high prehistoric archaeological sensitivity for the project alternatives based on historic stream courses, ethnographic land use, and topography of the terrain. These maps were compared with an archaeological model prepared for the DAHP.

Archaeological sensitivity and survey maps are provided in Appendix H4. Much of the Segment B and E alternatives have relatively high levels of archaeological sensitivity based on the presence of Mercer Slough in Segment B and the Sammamish River floodplain in Segment E.

Also shown in Appendix H4 are the survey tracts with shovel test probe locations that were excavated during the archaeological survey. A field crew conducted an archaeological survey for the 2008 Draft EIS in February 2007 and for the Final EIS (Stage 1) in March, June, and July 2010 (Thompson and Gilpin, 2010). The work included 27 survey tracts placed primarily in archaeologically sensitive areas but also included low-sensitivity areas. The survey placed 12 tracts in the archaeologically sensitive portions of Segment B, 7 in Segment D which varied as both low and medium archaeologically sensitive, and 8 in the archaeologically sensitive portions of Segment E. Two survey tracts (in Segment D) were placed in areas considered to have low archaeological sensitivity to control for the bias inherent in focusing surveys on high-sensitivity areas. No tracts were placed in Segments A or C because heavy development and other characteristics provided relatively fewer areas of high archaeological sensitivity. One of the Draft EIS survey tracts and two of the Final EIS survey tracts were unable to be surveyed due to issues with entry and/or significant surface disturbances. A preconstruction archaeological survey will provide additional information and guidance for uncovering historic resources during construction.

The archaeological survey of the Segment B tracts encountered areas of historical disturbance, heavy vegetation, water near or at the ground surface, and modern debris. Survey tracts in Segment D also showed considerable disturbance, while many of those in Segment E (particularly along the Sammamish River) encountered fill covering the native soils up to about 3 feet deep. The project archaeologist identified an additional survey tract to search for recorded archaeological site 45KI8 described above, but encountered no evidence of the site. It is difficult to tell whether the site still exists because the area has been eroded, dredged, rip-rapped, and filled.



★ NHRP Listed/Eligible Site

■ Sensitivity Zone

● Proposed Station

■ New and/or Expanded Park-and-Ride Lot

Preferred Alternative

— At-Grade Route

— Elevated Route

— Retained-Cut Route

— Retained-Fill Route

— Tunnel Route

Other Alternatives

— At-Grade Route

— Elevated Route

— Retained-Cut or Retained-Fill Route

— Tunnel Route

Exhibit 4.16-1
Cultural Resources
Segments A, B, C, D, and E
East Link Project

None of the surveys located prehistoric archaeological remains. One historic-period archaeological site was recorded during the 2010 survey session. This site consisted of a scatter of domestic debris found in a survey tract along Segment B. The site is not eligible for listing in the NRHP because it did not retain many aspects of integrity nor did it meet any of the four criteria for listing.

In summary, the survey located no NRHP-eligible prehistoric or historic-period archaeological remains at archaeological site 45KI8. These results are not conclusive because buried materials and sites could be found, particularly along the Segment B and Segment E alternatives. Although past development has likely damaged or destroyed archaeological sites, some important remains could exist.

4.16.2.2 Traditional Cultural Properties

FTA and Sound Transit have conducted government-to-government consultation with the Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Suquamish Tribe, Duwamish Tribe, Tulalip Tribes of Washington, and Yakama Nation, initially providing project information by mail. Meetings have been held with Snoqualmie and Muckleshoot Tribal representatives to discuss the project and its potential impacts on archaeological sites and traditional cultural properties (TCPs). Consultation with the Tribes has revealed no traditional cultural properties in the project vicinity.

4.16.2.3 Historic Buildings and Structures

A historical records search was performed that identified several properties listed in the National Register, the Washington Heritage Register (WHR), or local registers. Appendix H4 lists the properties inventoried and shows the properties determined to meet the National Register and local ordinance criteria by 2016. Inventoried resources would be 50 years old by the baseline year 2016. Field surveys by project historians and preparation of inventory forms took place primarily from February through June 2007, September through October 2007, and February to April 2010. The field surveys inventoried 439 buildings and structures (including one potential historic district) in the APE, with 12 either listed in the National Register (and thus automatically listed in the WHR) or recommended to be eligible. Sound Transit also conducted field tours with DAHP staff to identify properties that appeared to meet National Register eligibility criteria.

The DAHP reviews NRHP recommendations for concurrence, and the local jurisdictions review local landmark register recommendations. Letters from the DAHP and local jurisdictions concurring on the eligibility of the historic properties can be found in Appendix H4. Table 4.16-1 summarizes the NRHP- or local-listed or eligible properties identified in the APE, Exhibits 4.16-2 through 4.16-11 and 4.16-12 through 4.16-17 are photographs of these properties, and the following subsections discuss these properties.

In addition to resources discussed in the remainder of this section, one potential historic resource, the former BNSF Railway, was surveyed in the APE for multiple project segments. Portions of the former BNSF Railway are within the APE for Segments B, C, D, and E. The portions of the former BNSF Railway within the project's APE have been determined as not eligible for listing in the NRHP, although the railroad as a whole has been determined eligible from a previous archaeological investigation. These portions are nondescript and do not well represent the theme of the railroad as a whole. Significant intact properties representative of the former BNSF Railway's and the preceding owners' contributions to railroad technology are not presented by portions of the former BNSF Railway in these segments of the project corridor.

Segment A

The five historic structures and buildings in Segment A are on the NRHP and have already been recorded at the Washington DAHP. They are the Publix Hotel, located within the Seattle Chinatown National Register Historic District and the International Special Review Historic District; the Immigrant Station and Assay Office Building (INS Building); the Jose Rizal 12th Avenue South Bridge; the Will H. Thompson House; and the Mount Baker Ridge Tunnels and Eastern Portals. In addition, WSDOT, on behalf of the Federal Highway Administration and DAHP, identified a segment of I-90 between I-5 and I-405, which includes the Mount Baker Ridge Tunnels and Eastern Portals, as eligible for the NRHP and therefore nominated these as one eligible resource. DAHP concurred with this determination in a letter dated November 23, 2009.

The architecture of the INS Building features Neo-classical and Mediterranean elements, as shown in Exhibit 4.16-2. The building is important for its role in history, particularly that of Asian immigration. The Publix Hotel in the Seattle Chinatown NRHP Historic

TABLE 4-16.1
List of Historic Properties in Area of Potential Effect

Segment	Field No. and Map ID	Property Name/Type	Address	Register Status
A, Interstate 90	376	Publix Hotel (Seattle Chinatown NRHP/ International Special Review Historic District)	504 Fifth Avenue South	Contributing element to NRHP and Seattle Special Review historic districts
A, Interstate 90	132	Immigrant Station and Assay Office	815 Airport Way South	NRHP, WHR, eSL
A, Interstate 90	303	Jose Rizal 12th Avenue South Bridge	12th Avenue South crossing of South Dearborn Street	NRHP, WHR, eSL
A, Interstate 90	166	Will H. Thompson House	3119 South Day Street	NRHP, WHR, SL
A, Interstate 90	190	I-90 Lake Washington Highway Segment, milepost 3.44-8.9 (includes Mount Baker Ridge Tunnel and Eastern Portals)	I-90 – Washington State Department of Transportation right-of-way between mileposts 3.4 to 8.9 and East end of I-90 tunnel	NRHP, WHR, SL ^a
A, Interstate 90	156	Endresen Residence	1402 32nd Avenue South	eSL
A, Interstate 90	133	Romaine Electric/Washington Iron Works Pattern Shop	1101 Airport Way South	eSL
B, South Bellevue	16	The Winters House	2102 Bellevue Way SE	NRHP, WHR
B, South Bellevue	63	Pilgrim Lutheran Church	10420 SE 11th Street	eNRHP, eWHR
C, Downtown Bellevue	1100	Safeway Store	414 104th Avenue NE	eNRHP, eWHR
C, Downtown Bellevue	various (see Exhibit 4.16-18)	Potential Surrey Downs Historic District	37 structures (see Exhibit 4.16-18)	Potential eNRHP
D, Bel-Red/Overlake	104	Former Bellevue Fire Station	14822 NE Bellevue-Redmond Road	eNRHP, eWHR
E, Downtown Redmond	112	Justice William White House	Leary Way NE and NE 76th Street	eNRHP, eWHR, RHL
E, Downtown Redmond	113	Redmond Trading Company	7805 Leary Way NE	RHL
E, Downtown Redmond	114	Bill Brown Saloon Building	7824 Leary Way NE	RHL, eNRHP, eWHR
E, Downtown Redmond	118	Dudley Carter/Haida House	Sammamish Slough Park	RHL

^a The Mount Baker Ridge Tunnel and Eastern Tunnel Portals are also designated as Seattle Landmarks.

e determined eligible
 NRHP National Register of Historic Places
 SL Seattle Landmark
 RHL Redmond Historic Landmark
 WHR Washington Heritage Register

District is significant for its association with Seattle history (Exhibit 4.16-3). The 12th Avenue South Bridge, constructed in 1911, was listed in the NRHP based on its engineering design (Exhibit 4.16-4). The Mount Baker Tunnels' architects designed an impressive gateway to the City of Seattle by combining Art Deco elements and stylized Native American motifs, as shown in Exhibit 4.16-5. Although the tunnels were an engineering feat, the National Register listing focuses on their striking ornamentation.

The Lake Washington Segment of I-90 between Martin Luther King Jr. Way in Seattle and East Channel

Bridge in Bellevue was determined eligible for the NRHP as a key piece of transportation history. It included extensive community involvement and design of the centerlanes for transit (Exhibit 4.16-6). It is also significant for its innovative engineering and design that incorporated floating bridges, landscaped lids, and minimized community impacts. Although the facility is less than 50 years old, it qualified for listing in the NRHP under Criteria Consideration G, achieving significance because of its exceptional importance. The Will H. Thompson House is significant due to its architecture and high level of integrity (Exhibit 4.16-7).



EXHIBIT 4.16-2
United States Immigration Station and Assay Office Building



EXHIBIT 4.16-5
Mount Baker Ridge Tunnel



EXHIBIT 4.16-3
Publix Hotel



EXHIBIT 4.16-6
I-90 Lake Washington Highway Segment



EXHIBIT 4.16-4
Jose Rizal 12th Avenue South Bridge



EXHIBIT 4.16-7
Will H. Thompson House



EXHIBIT 4.16-8
Endresen Residence



EXHIBIT 4.16-11
Pilgrim Lutheran Church



EXHIBIT 4.16-9
Romaine Electric/Washington Iron Works Pattern Shop



EXHIBIT 4.16-12
Mithun & Nesland Design on 109th Avenue SE in Surrey
Downs Subdivision



EXHIBIT 4.16-10
The Winters House



EXHIBIT 4.16-13
Safeway Store



EXHIBIT 4.16-14
Former Bellevue Fire Station, 14822 NE Bellevue-Redmond Road



EXHIBIT 4.16-16
Bill Brown Saloon Building



EXHIBIT 4.16-15
Justice William White House



EXHIBIT 4.16-17
Haida House

In addition, City of Seattle has determined that the Endresen Residence at 1402 32nd Avenue (Exhibit 4.16-8) and the Romaine Electric/Washington Iron Works building at 1101 Airport Way (Exhibit 4.16-9) may be eligible for City Landmark status. However, these buildings were determined not eligible for the NRHP.

Segment B

The Winters House was listed in the NRHP in 1992 based on its Spanish Eclectic architecture, as shown in Exhibit 4.16-10, and its association with the bulb-growing and floriculture industry in King County and Washington. The Winters House is currently used by the Eastside Heritage Center as a heritage research center, exhibit space, archive storage, library, and public meeting space. Additionally, the Eastside Heritage Center provides public and educational programming at the Winters House. The Winters

House also contains office space for the City of Bellevue Parks and Community Service Department staff and can be used for public or private meeting event space. The Winters House is part of the Heritage Loop Trail in Mercer Slough Nature Park; the site includes historical interpretation and facilities for trail users. The Pilgrim Lutheran Church (Exhibit 4.16-11), completed in 1965, is an outstanding example of Neo-Expressionist architectural style. The firm that designed the building – Grant, Copeland, Chervenak and Associates – won awards for several of their local projects.

Segment C

A portion of the Surrey Downs residential subdivision is potentially eligible for the NRHP as a historic district (see Exhibit 4.16-18). According to discussions with DAHP, this residential area has not been

determined eligible because many of the houses in the Surrey Downs neighborhood are outside the Area of Potential Effect and thus were not analyzed for historic significance. A district is a concentration of buildings or other properties that may or may not be individually eligible for the National Register, but are linked by one or more features that define their character. To be considered eligible as part of the potential Surrey Downs historic district, the houses need to be a consistent architectural style and not have been outwardly modified since their construction. The district is unique because the subdivision featured home designs that are of the post-World-War II called "Northwest Modern" Style of design created by Mithun & Nesland, a Seattle architectural firm. The DAHP determined 37 houses would be contributing elements to the potential historic district within the project APE. The historians did not establish boundaries for the district because it extends beyond the project APE. The house in Exhibit 4.16-12 is representative of the Northwest Modern style of design (18 houses in the potential historic district), which includes one-story houses with carports and two-story houses with garages located beneath the living space. Other contributing houses include split-level (11 houses) and ranch (8 houses) styles. Exhibit 4.16-18 shows the location of each of the contributing homes within the APE, and the properties are listed in Appendix H4.

Facing Bellevue Way NE just north of NE 4th Street, the currently closed Safeway store built in 1962 is eligible for the NRHP based on its distinctive character of a large-scale commercial grocery store of the 1960s era (Exhibit 4.16-13).

Segment D

One NRHP-eligible structure was identified in Segment D. The Former Bellevue Fire Station on Bel-Red Road, constructed in 1960, is a good example of Populuxe architecture, a style reminiscent of 1950s aerodynamic design (Exhibit 4.16-14).

Segment E

The Justice William White House (Exhibit 4.16-15) and the Bill Brown Saloon Building (Exhibit 4.16-16) are designated as Redmond Heritage Landmarks and are also eligible for listing in the NRHP (and therefore also for the WHR). The Justice William White House is important because its owners, William and Emma McRedmond White, both played important roles in the history of Redmond and western Washington. They set aside a part of the house, which was built in 1900, as a hotel because it was conveniently located close to the railroad line and the passenger depot, giving guests easy access.

The Redmond Trading Company building, currently occupied by Half Price Books, is a City of Redmond Heritage Landmark. This building was built in 1910 to house the trading company that was Redmond's largest business for decades. This building is not considered eligible for listing in the NRHP or the WHR since the display windows along the Leary Way side of the building is the only remaining characteristic from the original façade.

The Bill Brown Saloon Building is important because of its association with the man who was mayor of Redmond from 1919 to 1948. Beginning about 1915, the building's second floor served as an unofficial Redmond City Hall (Hardy, 2001).

The Dudley Carter/Haida House is a City of Redmond Heritage Landmark, and the City considers it to be eligible for listing in the National Register (Exhibit 4.16-17). It was constructed by nationally known, Canadian-born artist Dudley Carter following methods of the Haida First Nation. Review conducted by DAHP, however, determined that because the building is less than 50 years old and not of exceptional significance, it does not qualify for the National Register.

4.16.3 Environmental Impacts

4.16.3.1 Impact Evaluation Methods

The Advisory Council on Historic Preservation's regulations implementing NHPA Section 106 create a process by which federally assisted projects are reviewed for their effects on properties listed in, or eligible for listing in, the NRHP.

After the resource is identified and evaluated, the next step is applying the Criteria of Adverse Effect. These criteria are used to determine whether the undertaking could change the characteristics that qualify the property for NRHP inclusion. 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. Adverse effects include, but are not limited to, the following:

- Demolition or alteration of the property
- Alteration of the property's setting
- Introduction of visual, audible, or atmospheric elements that are out of character with the setting of the historic property

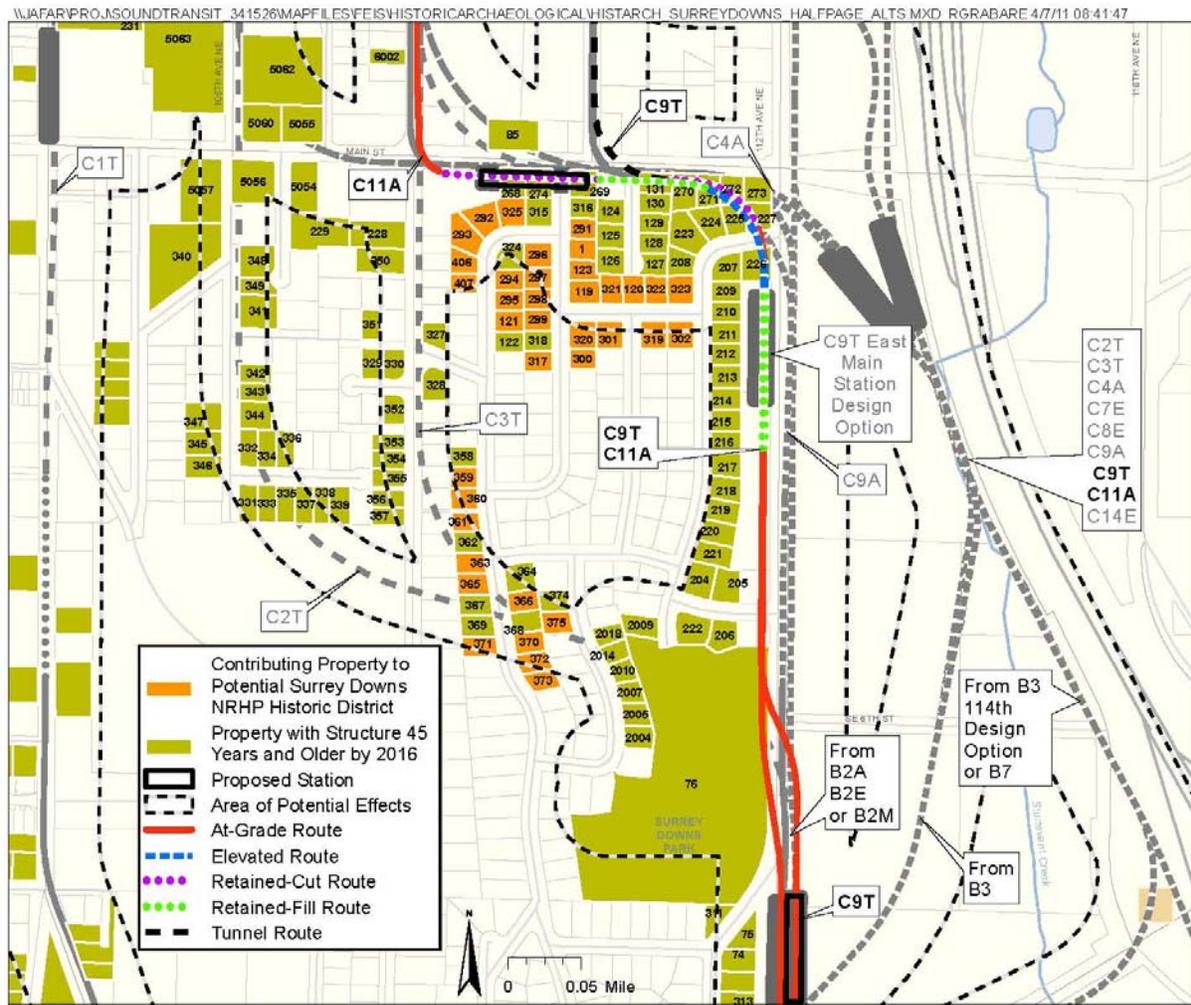


EXHIBIT 4.16-18

Contributing Properties to the Potential Surrey Downs Historic District

- Physical encroachment upon an archaeological site.
- Pursuant to 36CFR Part 800.5(b), an agency may propose a finding of no adverse effect in consultation with the SHPO when the undertaking is modified or conditions are imposed to avoid adverse effects.

FTA, in consultation with SHPO, has made a determination of adverse effect for the project. This determination results from the project's potential impacts on the Winters House by *Preferred Alternative B2M* and on the potential Surrey Downs Historic District by *Preferred Alternative C11A*, and Alternatives C4A, C2T and C3T. The Justice William White House would be potentially impacted by Alternative E4 because it would require relocation. Minimization and mitigation measures have been developed to resolve the potential impacts on these resources. The project would not adversely impact the other historic resources.

4.16.3.2 No Build Alternative

The No Build Alternative would not affect any historic properties.

4.16.3.3 Impacts during Operation

Although some potentially sensitive archaeological areas are identified, studies to date have identified no NRHP-eligible prehistoric or historic-period archaeological sites in the project APE. If one or more archaeological sites were identified in future studies, evaluation and treatment would be completed. The following subsections discuss the potential effects of project operation on historic buildings and structures.

Segment A

Operation of the light rail system with *Preferred Interstate 90 Alternative (A1)* is not anticipated to affect the eight historic properties identified in Table 4.16-1 because of the position of *Preferred Alternative A1* in the center of I-90.

The Publix Hotel is across the street to the east from the International District Station entrance, and the project would not result in aboveground changes in the immediate vicinity. The INS Building is situated at the Fifth Avenue S/I-90 ramp, and the light rail facility would be under Airport Way and not visible near this building. Due to the location of the project alternative in the existing D2 Roadway right-of-way and the project's consistency with the transit function and appearance of this facility, operation of the project would similarly not adversely impact the Romaine Electric/Washington Iron Works Pattern Shop structure or setting. The operation of the project along I-90 at-grade beneath the 12th Avenue South Bridge would not adversely impact the setting of the bridge because the project is within the boundaries of the existing I-90 roadway.

The Will H. Thompson House would not have vibration or impacts from this project. Due to the distance of *Preferred Alternative A1* from the residence at 1402 32nd Avenue South and the project's location in a tunnel within the existing I-90 right-of-way, operation of the project along I-90 at-grade would not adversely impact this historic property.

Preferred Alternative A1 would be constructed within I-90's existing center roadway and would not require widening of the facility (Exhibit 4.16-19) within Segment A. The design, materials, and workmanship of the tunnels, portals, floating bridges, and lids would not substantially change. The structural integrity and intended use of the facility would be maintained. *Preferred Alternative A1* is consistent with the historical aspects, features, and characteristics of this segment of I-90 and the bridge's long-term planning objectives and would not diminish the resource as a key piece of transportation history with innovative engineering and planning for future rail transit. Due to the context of I-90 as a transportation corridor, with early planning for rail transit, and the East Link project's location in the center roadway, the project would not change the character-defining features that qualify the resource to be included in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. In conclusion, none of the historic buildings and structures in Segment A would be impacted by the project during operations.

Segment B

Preferred 112th SE Modified Alternative (B2M) is proposed to be located within the 50-foot boundary established in the Winters House NRHP nomination form. *Preferred Alternative B2M* passes directly in front



EXHIBIT 4.16-19
I-90 Floating Bridges with Visual Simulation of Light Rail in Center Roadway

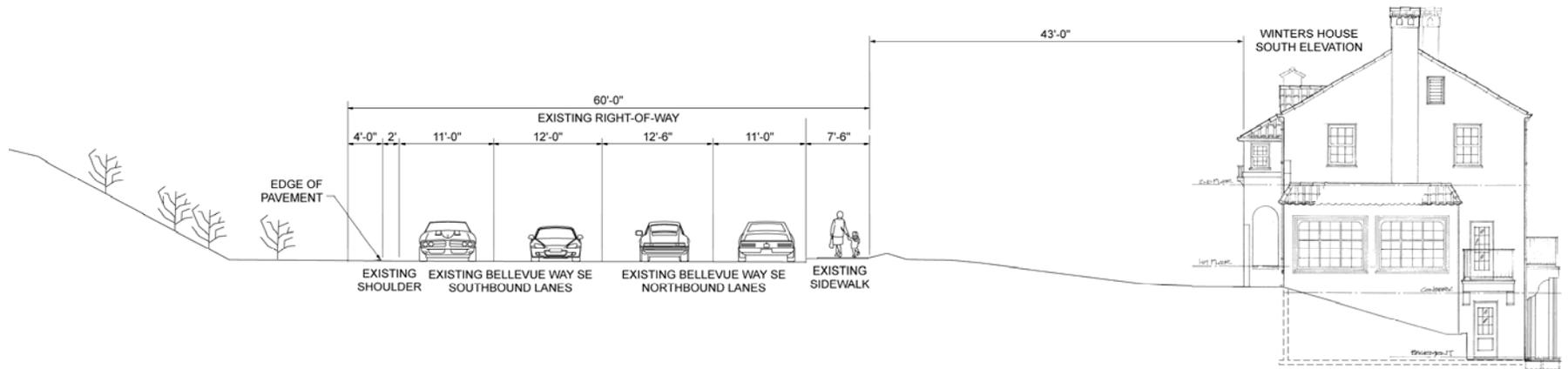


EXHIBIT 4.16-20
Winters House, *Preferred Alternative B2M* Birds' Eye View

of the Winters House in a lidded retained cut. The eastern edge of the *Preferred Alternative B2M* right-of-way measures approximately 10 feet from building foundation and 5 feet from the edge of the Winters House porch but is located in a lidded retained cut that is completely below grade.

Exhibit 4.16-20 depicts the Winters House with the proposed project (*Preferred Alternative B2M*), and Exhibit 4.16-21 shows the existing cross-section as well as the cross-section for *B2M*. The perspective and cross-section views illustrate minimization approaches incorporated into the project design to maintain historic integrity during light rail operation.

Existing



Preferred Alternative B2M

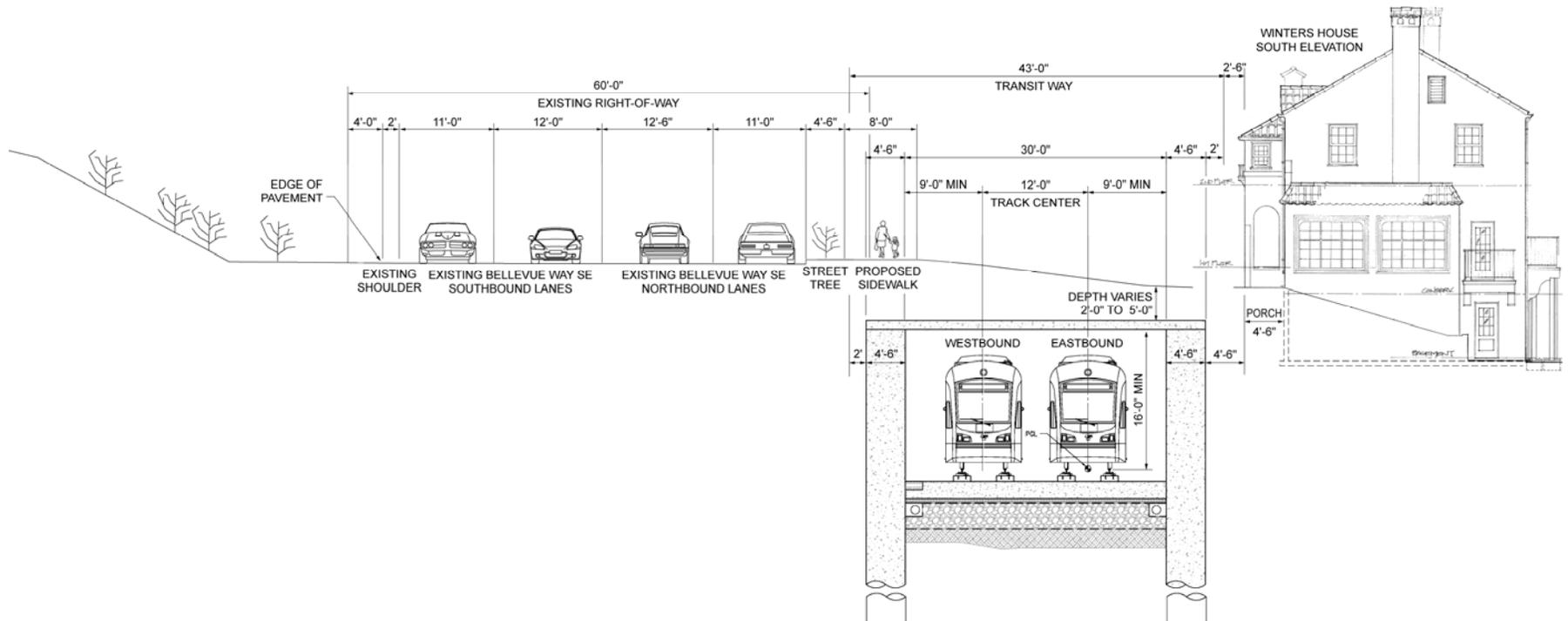


EXHIBIT 4.16-21
Cross Section of Preferred Alternative B2M Adjacent to Winters House

These elements include placing the light rail in a 170-foot-long lidded retained cut that would extend the width of the house and the length of the 50-foot property boundary on each side of the house, as identified in the NRHP nomination. Landscaping sensitive to the historic nature of the building and setting would be installed. Additional impacts on the Winters House property include a required American with Disabilities Act (ADA)-accessible ramp to connect the building to the parking lot; the sidewalk (per the City of Bellevue's requirement), which encroaches onto the front lawn by 5 feet; and a load restriction over the lidded trench that prohibits vehicles from driving on the front lawn, thus requiring deliveries at the first level of the building. Adjacent parking, which is located outside of the 50-foot nomination boundary, would be replaced with a new parking structure.

Whereas the Winters House would continue to fully convey its significance as outlined in its NRHP registration form, the 50-foot boundary around the house has been reduced by the widening of Bellevue Way SE, and the landscaping within this area no longer retain integrity because of several changes to the area over time.

Although the presence of the larger land area surrounding the property on the north, south, and east sides has been a feature since it was constructed and is a character-defining feature, the setting of the residence as it relates to Bellevue Way SE is not a character-defining feature, given past widening and improvements to Bellevue Way SE. As a result, *Preferred Alternative B2M* would not affect a historic resource related to the existing landscape.

Due to the proximity of the lidded retained cut and light rail guideway to the Winters House, the potential for vibration impacts during operation was analyzed and is described in more detail in Section 4.7, Noise and Vibration. No vibration impacts are projected. Using standard track work, the project would likely have groundborne noise impacts at the Winters House. As described in Section 4.7, Noise and Vibration, standard methods of vibration reduction, such as resilient fasteners or ballast mats, would be incorporated into the project and reduce the level of groundborne noise but may not eliminate the impact. The track design would incorporate a floating slab, if necessary, to eliminate the groundborne noise impact.

Sound Transit applied the Criteria of Adverse Effect (36 CFR 800.5) in analyzing each aspect of *Preferred Alternative B2M*, considering the property's character-defining features that convey its significance and qualify its listing in the NRHP.

Operation of *Preferred Alternative B2M* would not diminish the property's location because the Winters House structure would not be moved. The roadway would be the same distance from the house, and the light rail facility would be in a lidded, retained cut below grade in front of the structure and within the 50-foot property boundary on either side established by the NRHP nomination. Removal of the existing driveway would similarly not diminish the setting of the landscaping because it lacks integrity. Similarly, B3 - 114th Extension Design Option would also avoid adverse impacts on the resource.

Operation of Alternative B1 in the center of Bellevue Way SE is not anticipated to adversely impact the Pilgrim Lutheran Church, which is located just west of the street, although Bellevue Way SE would be realigned up to 10 feet into the property for a distance of roughly 250 feet (Exhibit 4.16-22).

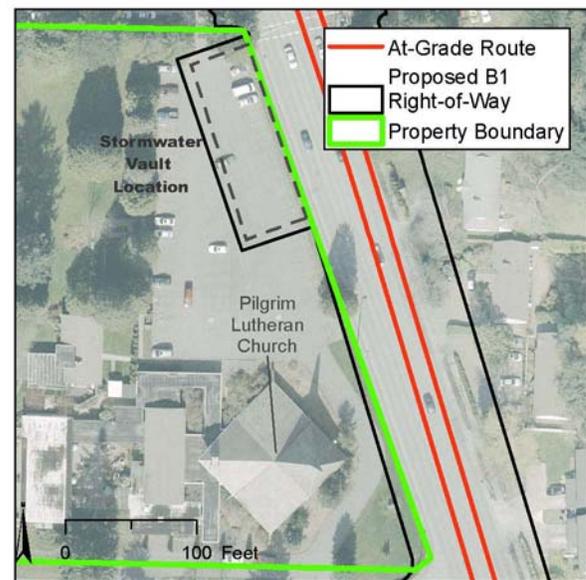


EXHIBIT 4.16-22
Proximity of Alternative B1 to Pilgrim Lutheran Church

In addition, an underground stormwater detention vault would be constructed at the northeast corner of the property in the parking area, but operation of this facility would not adversely impact the Pilgrim Lutheran Church. No parking would be removed. The vault would not be visible after construction, and the only surface element to the vault would be one or two manholes necessary for maintenance. No parking spaces would be removed. Maintenance would consist of periodically parking a truck at the site and opening the manholes for cleaning and maintenance, and maintenance could be scheduled to avoid major events and regular services at the church. The parcel is large and the historic building is sufficiently distant from

the portion to be acquired so that the historic property would not be adversely impacted. The location already experiences the visual and noise impacts of heavy street traffic, and no additional impacts are expected to occur from operation of the project. Access from SE 11th Street to the church would not be disrupted. Vibration impacts would not be expected to reach the church.

There are no impacts to historic properties in the Alternative B7 APE. In conclusion, none of the historic buildings in Segment B would be impacted by the project during operations.

Segment C

While Preferred 108th NE At-Grade Alternative (C11A) (Exhibit 4.16-23) connecting to Preferred Alternative B2M would remove properties along 112th Avenue SE and Main Street, and both streets border the potential Surrey Downs historic district, no properties contributing to the potential historic district would be removed. When connecting to Preferred Alternative B2M, Preferred Alternative C11A would remove one row of noncontributing properties along 112th Avenue SE, a single row of noncontributing properties along Main Street, and one property along 111th Avenue SE.

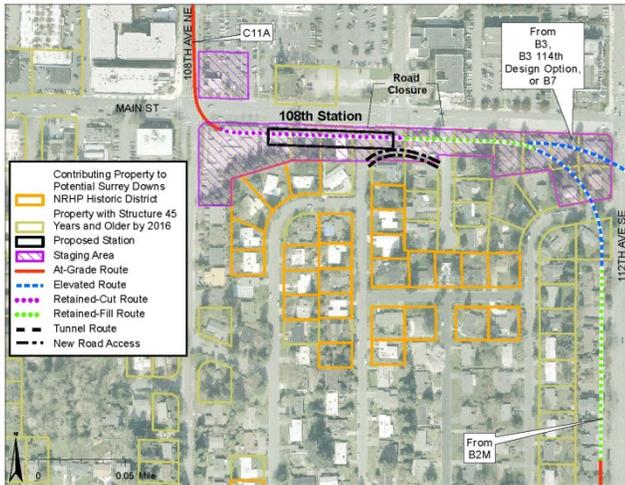


EXHIBIT 4.16-23
Proximity of Preferred Alternative C11A to Potential Surrey Downs Historic District

While Preferred Alternative C11A would remove properties along 112th Avenue SE and Main Street, it would not remove any of the properties contributing to the potential historic district. Along 112th Avenue SE, the first two rows of properties from the roadway are noncontributing, as are properties nearest the corner of 112th Avenue SE and Main Street and just south of Main Street. Due to the nature and orientation of the properties along the eastern and northern edges of the potential historic district, this impact would not

be adverse. One row of noncontributing properties would remain between the contributing properties and the project along 112th Avenue SE and most of Main Street. The contributing properties would be the same distance from 112th Avenue SE and Main Street, and the transit changes to each roadway would not directly affect the district setting that would affect its potential for listing in the NRHP, or for its contributors to convey their significance and that of the district as a whole. The project would not adversely impact the historic setting within the Surrey Downs neighborhood.

Preferred Alternative C11A includes the 108th Station on Main Street adjacent to contributing buildings. Contributing properties nearest the proposed project would be indirectly affected by Preferred Alternative C11A operation, and the noncontributing buildings in commercial use along Main Street would be removed. The potential historic district’s setting would be affected by the removal of noncontributing properties along the major roadways of 112th Avenue SE and Main Street and the 108th Station. However, due to the surrounding dense, urban nature of the properties along the eastern and northern edges of the potential district, this impact would not be adverse.

When connecting to Alternatives B3, B3 - 114th Extension Design Option, or B7, Preferred Alternative C11A would not remove any properties or change access along 112th Ave SE. One row of properties along Main Street would be permanently removed for the light rail guideway and 108th Station.

Preferred Alternative C11A could have potential moderate noise impacts on three contributing properties in the northwest portion of the potential district, south of the proposed station; however, these noise impacts would be minimized and avoided with a permanent sound barrier included along the 112th Avenue SE and Main Street portions of the project.

While Preferred Alternative C11A would introduce changes to the setting of the potential Surrey Downs historic district, the project would not affect any contributing properties and would minimize impacts on setting and context. During final design, Sound Transit would assess whether or not the existing large evergreen trees located next to the contributing properties near the 108th Station could be preserved. Sound Transit’s intention is to preserve the established trees to the extent practicable. Project components such as station design, landscaping, and a landscaped berm would minimize project visual and noise impacts, create a buffer from the project, and could enhance the neighborhood boundary where noncontributing properties would be removed.

Preferred 110th NE Tunnel Alternative (C9T) would not be adjacent to any contributing properties. It would remove one row of noncontributing properties along 112th Avenue SE and one to two rows of noncontributing properties at the northeast corner of the neighborhood where 112th Avenue SE meets Main Street when connecting to *Preferred Alternative B2M* (Exhibit 4.16-24). Fewer noncontributing properties would be removed along Main Street as compared with *Preferred Alternative C11A* because *Preferred Alternative C9T* enters a tunnel on the south side of Main Street and turns north to tunnel under 110th Avenue NE. The visual change to the area surrounding the potential Surrey Downs historic district would be less than those of *Preferred Alternative C11A* because the properties along Main Street west of 110th Avenue NE would remain. If the East Main Station Design Option is selected, no additional properties would be removed.

There is only one historic property in the Bellevue Way Tunnel Alternative (C1T) APE: the Safeway store. Alternative C1T would be in a tunnel profile in the Bellevue Way street right-of-way when passing by the Safeway property. Alternative C1T would have no visual, vibration, or noise impacts during operation and therefore would not adversely impact this property.

Operation of the 108th NE Tunnel (C3T) and 106th NE Tunnel (C2T) Alternatives would have no visual impacts on properties that contribute to the potential Surrey Downs historic district within the APE (Exhibit 4.16-25). Vibration and noise impacts also are not anticipated during East Link operation. Similar to *Preferred Alternative C11A*, construction would be directly adjacent to contributing properties and appropriate measures to minimize impacts would be implemented.

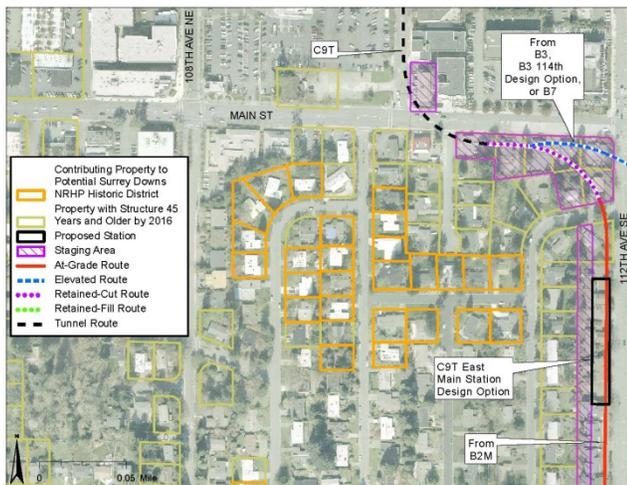


EXHIBIT 4.16-24

Proximity of *Preferred Alternative C9T* to Potential Surrey Downs Historic District

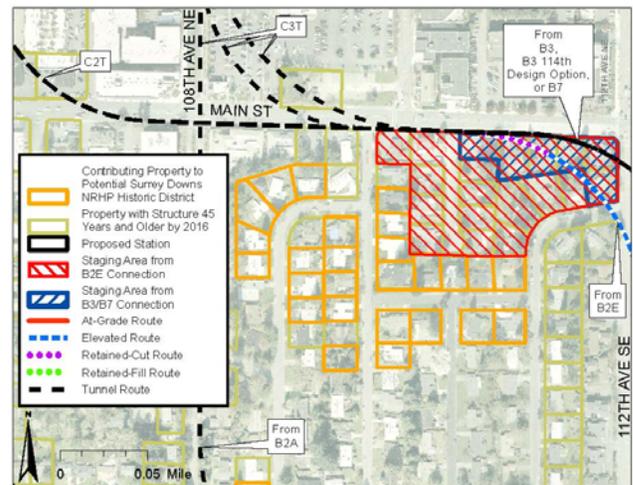


EXHIBIT 4.16-25

Staging Area for Connections from B2E vs. B3 and B7 for Tunnel Alternatives C2T and C3T

When connecting to Alternatives B3, B3 114th Extension Design Option, or B7, *Preferred Alternative C9T* would not remove any properties or change access along 112th Ave SE. One row of noncontributing properties along Main Street between 112th Avenue SE and 110th Avenue would be permanently removed.

While *Preferred Alternative C9T* would affect the setting of the potentially NRHP-eligible Surrey Downs historic district, the project would not affect any contributing properties and would minimize effects on setting and context. Project components such as landscaping create a buffer from the project and could enhance the neighborhood boundary where noncontributing properties would be removed.

Operation of Couplet Alternative (C4A) along 112th Avenue SE would avoid adverse impacts on properties that contribute to the potential Surrey Downs historic district (Exhibit 4.16-26). Almost all of the contributing properties would be screened by existing vegetation, fences, and other houses. Similar to *Preferred Alternative C11A*, construction would be directly adjacent to contributing properties and appropriate measures to minimize impacts would be implemented.

The 112th NE Elevated (C7E) and 110th NE Elevated (C8E) Alternatives are not anticipated to affect properties that contribute to the potential Surrey Downs historic district within the APE because the alternatives are distant enough (at least 200 feet) to avoid visual, noise, and vibration impacts.



EXHIBIT 4.16-26
Staging Area for Connections from B2A and B2E vs. B3 and B7 for Alternative C4A

110th NE At-Grade Alternative (C9A) would be elevated and on the east side of 112th Avenue SE, so there would be no acquisition of properties along the west side of 112th Avenue SE near the potential Surrey Downs historic district. Because this alternative would be elevated, with straddle bents, approximately 40 feet in this area, Alternative C9A would result in visual change. In addition, permanent sound walls would be constructed along the south side of Main Street adjacent to noncontributing structures. However, this change in visual quality would occur outside the Surrey Downs neighborhood and therefore not affect its potential eligibility for the NRHP. In addition, the two rows of noncontributing properties along 112th Avenue SE would remain between the potential Surrey Downs historic district and the project. Alternative C9A would travel at-grade on the south side of Main Street before turning north on 110th Avenue NE, and would require the removal of one row of structures along the south side of Main Street between 112th Avenue SE and 110th Avenue NE. None of the properties that would be removed contribute to the potential Surrey Downs historic district, and the project would not be adjacent to any contributing properties.

The intersection of 110th Place SE would either be gated with right-in/right-out access only or closed. However, access to the north end of the neighborhood would remain. Alternative C9A would not alter or remove contributing resources or otherwise diminish character-defining features of the potential historic district.

The 114th Avenue NE Elevated Alternative (C14E) would avoid adverse impacts on properties that contribute to the potential Surrey Downs historic

district because the alternative is distant enough to avoid visual change and noise impacts.

Segment D

There are no historic properties within the APE for Preferred NE 16th At-Grade Alternative (D2A), Alternative D2A - 120th Station and - NE 24th Design Options, the NE 16th Elevated (D2E), and SR 520 (D5) Alternatives.

For the NE 20th Alternative (D3), a narrow portion of the parcel that the former Bellevue Fire Station occupies would be incorporated into the project due to road reconstruction (Exhibit 4.16-27). However, the building is located on the portion of the parcel outside of the APE, and the portion of the property that would be acquired is not a character-defining feature of the resource. Operation of the alternative would not result in visual, noise, vibration, or other impacts on the property. Widening of the road and introduction of the retained-cut light rail would not adversely impact the setting, which is characterized by major roadways: Bel-Red Road, 148th Avenue NE, and NE 20th Street. Although the building’s parcel is situated inside the APE, the building itself is outside the APE.

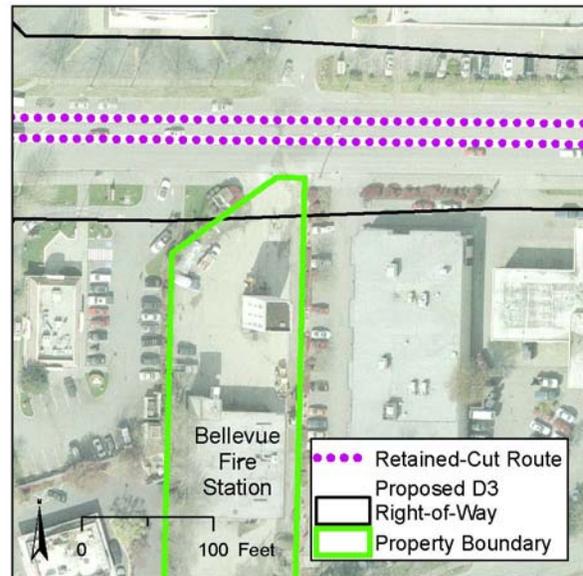


EXHIBIT 4.16-27
Effects of Alternative D3 on former Bellevue Fire Station

Segment E

The Justice William White House, the Redmond Trading Company building, and the Bill Brown Saloon building (Exhibit 4.16-28) are within the APE of Preferred Marymoor Alternative (E2) and Alternative E2 - Redmond Transit Center Station Design Option. The Justice William White House is approximately 65 feet from the route and separated by NE 76th Street. The Bill Brown Saloon is at least 100 feet from the route.

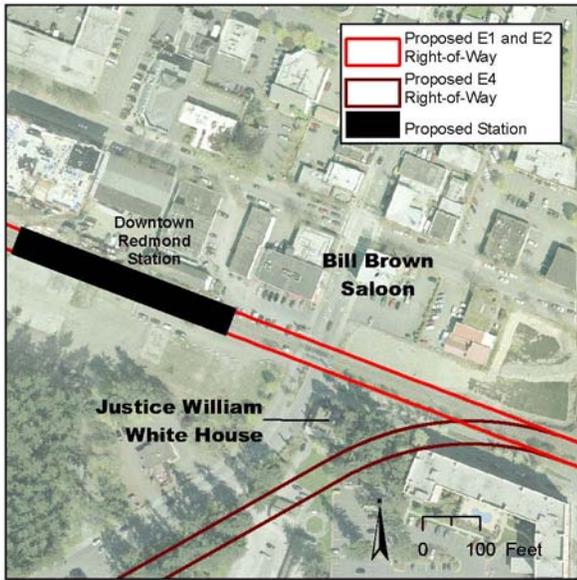


EXHIBIT 4.16-28
Proximity of *Preferred Alternative E2*, and Alternatives E1 and E4 to Bill Brown Saloon Building and Justice William White House

The Redmond Trading Company building is approximately 50 feet from the rail alignment and the Downtown Redmond Station. While *Preferred Alternative E2*, the Downtown Redmond Station, and E2 - Redmond Transit Center Design Option would introduce light rail into the setting of these resources, which are across the former BNSF Railway corridor from each other, including a station just west of Leary Way NE, the project would be at-grade within the existing railroad corridor and consistent with the character of the railroad setting.

The operation of trains for passenger use in the right-of-way is consistent with the historic use of the corridor. The station would be designed in coordination with the City of Redmond and the community to complement the historic setting of Downtown Redmond. In addition, none of the remaining historic period buildings that contribute to the setting would be removed. Therefore, *Preferred Alternative E2* and E2 - Redmond Transit Center Design Option would have no adverse impact on these resources.

During final design, Sound Transit will work with the City of Redmond to adjust the design of *Preferred Alternative E2* within the former BNSF Railway corridor and NE 76th Street right-of-way to accommodate the potential for future freight / commuter rail, the Central Connector utility line, the King County Trail, automobile traffic on NE 76th Street, as well as East Link light rail. Resulting changes may include shifting the *Preferred Alternative E2* rail

alignment farther from the Bill Brown Saloon and the Redmond Trading Company building, but closer to the Justice William White House. This shift in the alignment would not affect any of the three properties because *Preferred Alternative E2* would not encroach on the historic boundary, or alter the historic setting of the corridor as a railway in relation to the Justice William White House. The character-defining features of the Justice William White House and the Bill Brown Saloon that convey their significance and qualify the properties for listing in the NRHP would not be adversely impacted by this potential shift of the alignment.

At the Justice William White House, Redmond Trading Company building, and the Bill Brown Saloon building, the Redmond Way Alternative (E1) route is the same as described above for *Preferred Alternative E2*, although it does not include the Downtown Redmond Station. This alternative would result in no impacts on historic properties. The Leary Way Alternative (E4) would require relocating the Justice William White House, which would result in an adverse impact. Sound Transit has consulted with the City of Redmond and DAHP about moving the building to a nearby location that preserves as much of its setting, feeling, and association with the former BNSF Railway as possible to resolve the adverse impacts from building relocation. Furthermore, relocation would occur in a manner that avoids damage to the building during transport and re-establishment. If Alternative E4 is selected, FTA and Sound Transit would continue to consult with the City, DAHP, and other interested parties to determine whether a suitable relocation site can be determined that is feasible within the project alternative. The roles and responsibilities for implementing mitigation measures would be established through a Memorandum of Agreement (MOA). In conclusion, the Justice William White House would be potentially impacted and the remaining historic resources in Segment E would not be impacted by the project during operations.

4.16.3.4 Impacts during Construction

It is unlikely that project alternatives would affect NRHP-eligible archaeological sites because many portions of the project are located within areas not considered sensitive for the occurrence of archaeological sites or are located in high-sensitivity areas that have experienced previous disturbance. In addition, the archaeological investigation to date has encountered no NRHP-eligible archaeological sites, including historically recorded site 45KI8. Past fill and

disturbance could have covered, destroyed, or damaged site 45KI8.

Although much of the APE has seen ground disturbance, fill, and development, it is possible that one or more archaeological sites may still exist, deeply buried beneath the ground surface in areas where project excavation would take place. An additional preconstruction survey would be conducted to further identify potential buried resources and would guide the development of an Archaeological Resources Monitoring Plan (ARMP) or an Unanticipated Discovery Plan (UDP). The Segment B and Segment E alternatives have a greater likelihood of containing archaeological sites than the other segments because they are near water bodies that contain resources sought by prehistoric and historic people. *Preferred Alternative B2M*, Alternatives B2A, B2E, B3, and B7 and the B3 - 114th Extension Design Option are near Mercer Slough and its adjacent terraces, while *Preferred Alternative E2* and Alternatives E1 and E4 are near the Sammamish River valley and its adjacent terraces.

The following subsections discuss the potential impacts of project construction on historic buildings and structures. Construction impacts on historic buildings and structures can include temporary loss of access, along with visual impacts, noise, vibration, and the dust and debris of construction activities. Sound Transit would implement minimization and mitigation measures to resolve these potential impacts. For *Preferred Alternatives B2M* and *C11A*, a potential construction impact could occur at the Winters House and potential Surrey Downs historic district. Alternative E4 would potentially impact the Justice William White House as a result of its required relocation.

Segment A

Construction of Segment A and *Preferred Alternative A1* is not anticipated to affect the identified historic properties. The Publix Hotel is located above the transit tunnel, and the INS Building is situated at the east edge of the APE and would not be affected by construction along Fifth Avenue South. The project is also located far enough from the Romaine Electric/Washington Iron Works Pattern Shop that no construction activities are expected to adversely impact the resource. Construction of the at-grade route beneath the 12th Avenue South Bridge also would not adversely impact that property. Project construction would also avoid impacts on the Will H. Thompson House situated above the Mount Baker Ridge Tunnel. Given the distance of construction activities from the resource, the residence at 1402 32nd Avenue South would not be adversely impacted.

Finally, construction would not affect features of the NRHP-eligible I-90 Lake Washington segment, including the portals of the Mount Baker Ridge Tunnels, because the project would be constructed to avoid impacts on the features identified as character-defining by locating all construction activities within the center of I-90, which was originally designed with the intent to allow for such construction. Use of the segment during construction would not affect the property in a manner that would impair future use of the resource as it was intended.

Segment B

The potential for damage from vibration and settlement from construction activity adjacent to the Winters House with *Preferred Alternative B2M*, including construction of underground piles for retained-cut support, may exist. Methods to prevent or limit impacts such as minor cosmetic damage are incorporated as conditions of the project as described in Appendix H4 and Section 4.7, Noise and Vibration. The character-defining features of the NRHP-listed Winters House that convey its significance and qualify the property for listing in the NRHP would not be affected. Construction would introduce visual, audible, and vibration elements that could diminish the character-defining features of the former residence that convey its significance. By employing construction settlement and vibration-minimization measures during construction, the project would minimize damage and alterations to the structure that would affect the design, materials, and workmanship of the resource. Also, if any cosmetic damage occurs, Sound Transit would make the needed repairs consistent with the Secretary of the Interior's standards.

Construction settlement and vibration minimization measures are described in detail in Appendix H4. Minimization and mitigation measures, which are listed later in this section under Section 4.16.4, Potential Mitigation Measures, would be incorporated into *Preferred Alternative B2M* to resolve potential impacts on the Winters House.

After construction, the landscaping would be restored in a manner sensitive to the historic period. In addition, while the City of Bellevue would not receive rental income from the Winters House during construction, there would be no impacts from the project that would cause a change in the use of the structure or change economic conditions resulting in reduced maintenance of the structure. The public use and the Eastside Heritage Center would be able to return to the building after construction.

With Alternatives B1, B2A, B3, and B3 - 114th Extension Design Option, construction of the at-grade trackway located in the center of Bellevue Way SE would have temporary visual and noise impacts on the Winters House that would not be considered adverse. The character of the setting does not convey or contribute to the significance of the NRHP-listed resource, and, therefore, the temporary change due to construction would not be an adverse impact. Access to the property would be maintained during construction, and the tenant would not need to be relocated. Construction would not alter or damage the building. The same is true for construction of the Alternative B2E route on the west side of Bellevue Way SE across from the Winters House.

Construction of the underground stormwater detention vault at the northeast corner of the Pilgrim Lutheran Church parking lot would have temporary noise impacts on the church and temporarily reduce parking, but these effects would not impair the intended use of the property and are not considered adverse. Sound Transit would avoid construction during church services and special events to the extent possible, and the remainder of the parking area would be available for use.

Alternative B7 would not affect any historic resources during construction.

Segment C

Construction impacts in Segment C would mostly involve connectors from Segment B in the vicinity of the potential Surrey Downs historic district. These issues are outlined below.

Preferred Alternative C11A connecting to *Preferred Alternative B2M* would be constructed and use staging areas along or near Main Street and along 112th Avenue SE (Exhibit 4.16-23). When connecting to Alternatives B3 and B7 and the B3 - 114th Extension Design Option, construction of *Preferred Alternative C11A* would use properties near the corner of Main Street and 112th Avenue SE and one row of properties along Main Street. Construction staging areas are needed before, during, and for a short time after construction work occurs to store and maintain construction equipment and material and fabricate project component. Staging areas might also include contractor trailers (which would act as temporary offices and places for contractors to meet) and construction crew parking.

Construction of *Preferred Alternative C11A* and its staging areas would occur adjacent to and on the edge of the potential Surrey Downs historic district but would not remove properties that contribute to the

potential historic district. In most areas, noncontributing buildings would remain between the contributing buildings and project construction except near the intersection of Main Street and 108th Avenue NE, where construction would be adjacent to three contributing buildings. Construction activities could result in noise, visual, and dust impacts on nearby residences. Minimization and avoidance techniques would include installation of a solid construction barrier to shield the homes from construction, and to the extent practical, preservation of the evergreen trees along the south edge of the station area, east of 108th Avenue SE. Construction truck traffic would use the Main Street and 112th Avenue SE arterials without passing through the potential historic district. Street access to the neighborhood might be altered at times, but access would be maintained during construction.

Construction of *Preferred Alternative C11A* along 112th Avenue SE and Main Street is expected to occur largely during daytime working hours. Sound Transit contractors would be required to meet the City's noise ordinance criteria during all construction and if nighttime or off hours work was required, would seek the appropriate noise variance from the City. Refer to Section 4.7, Noise and Vibration, for additional information.

The *Preferred Alternative C11A* construction impacts would be temporary, lasting about five years overall, with the most intense construction activities (demolition, clearing, and heavy construction) occurring during the first couple years. Construction impact minimization measures included in the project, such as best management practices (such as dust control measures), and a solid construction barrier adjacent to contributing properties would resolve construction impacts. The residences are anticipated to remain habitable during the construction period.

In summary, construction adjacent to the potential historic district would potentially impact the contributing properties without the implementation of appropriate minimization and mitigation measures. Implementing these measures would resolve the potential impacts.

Preferred Alternative C9T would not be adjacent to any contributing properties. It would remove one row of noncontributing properties along 112th Avenue SE and one to two rows of noncontributing properties at the northeast corner of the neighborhood where 112th Avenue SE meets Main Street when connecting to *Preferred Alternative B2M* (Exhibit 4.16-24). Fewer noncontributing properties would be removed along Main Street as compared with *Preferred Alternative C11A* because *Preferred Alternative C9T* enters a tunnel

on the south side of Main Street and turns north to tunnel under 110th Avenue NE. The visual change to the area surrounding the potential Surrey Downs historic district would be less than those of *Preferred Alternative C11A* because the properties along Main Street west of 110th Avenue NE would remain. Alterations to neighborhood access would preserve other access points to 112th Avenue SE for the neighborhood.

When connecting to Alternatives B3, B3 - 114th Extension Design Option, or B7, *Preferred Alternative C9T* would not remove any properties or change access along 112th Ave SE. One row of noncontributing properties along Main Street between 112th Avenue SE and 110th Avenue would be permanently removed.

Regardless of the connector, *Preferred Alternative C9T* would not affect any contributing properties in the potential NRHP-eligible Surrey Downs historic district. This alternative would be far enough away from contributing properties to avoid an adverse impact during construction (Exhibit 4.16-24). While construction of *Preferred Alternative C9T* might affect the setting of the potential historic district, these affects would be temporary. Project components such as landscaping, would create a buffer from the project and enhance the neighborhood boundary where noncontributing properties would be removed.

Constructing a tunnel in Bellevue Way for Alternative C1T may require short-term construction easements affecting the sidewalk adjoining the Safeway property, but this would be over 100 feet from the structure, the store is currently closed, and a preliminary land use plan application for new construction is posted on the property. Therefore, there is low potential for indirect effects from East Link during construction. The project includes minimization measures to reduce potential impacts on the Safeway property, as described in Section 4.16.4.

With respect to the potential Surrey Downs historic district, none of the Segment C alternatives would require the removal of property along 112th Avenue SE south of SE First Place adjacent to potential contributing properties.

Alternatives C2T and C3T would involve connectors from Alternatives B2A, B2E, B3, or B7 (Exhibit 4.16-25). The connector from Alternative B2A to C2T or C3T would involve boring beneath the potential Surrey Downs historic district, which would avoid access and visual impacts. Noise and possible vibration could be noticeable to residents during construction but would not affect the buildings. Although the geotechnical

analysis shows that the soils in this area are generally resistant to settlement from ground disturbance, precautions during construction and a careful monitoring program would be incorporated into the construction plan.

The connector from Alternative B2E to C2T or C3T would use the northern area of the Surrey Downs subdivision for construction staging at the tunnel portal adjacent to several contributing properties (Exhibit 4.16-25). If connecting from Alternatives B3 or B7, then the staging area would be fewer homes and farther away from contributing residences. Construction would alter access at times during construction and would produce visual, noise, dust, and possible vibration impacts. The impacts would be temporary and would not affect historic structures.

Sound Transit would minimize visual and noise impacts by installing a solid construction barrier adjacent to contributing properties. To meet required noise limits, noise control measures discussed in Section 4.7 would be implemented for Alternatives C2T, C3T, and C4A. The staging area along Main Street created for the Alternative B2E connection to Alternatives C2T or C3T could be developed as a park after construction consistent with the City of Bellevue's Parks and Recreation Plan or could redevelop consistent with local zoning.

For connectors from Alternatives B2A or B2E to Alternative C4A, construction staging areas would remove one to two rows of properties south of Main Street. Construction would alter access at times during construction and would produce visual, noise, dust, and possible vibration impacts. The impacts would be temporary and not affect historic structures. Sound Transit would minimize visual and noise impacts by installing a solid construction barrier as well as implementing typical best management practices (BMPs) to reduce construction impacts such as dust.

For connectors from Alternatives B3 or B7 to Alternative C4A, construction staging would involve a smaller area but would still be adjacent to portions of the potential Surrey Downs historic district (Exhibit 4.16-26). Construction of connectors to Alternative C4A would be shorter in duration and require less nighttime construction than construction for tunnel alternatives, such as Alternatives C2T and C3T, and *Preferred Alternative C9T*. There would be no effect on the potential Surrey Downs historic district for connectors from Alternatives B3 or B7 to C7E or C8E. Alternative C9A would require similar property acquisition for construction staging as *Preferred Alternative C9T*, with the addition of one building west of 110th Place SE on the south side of Main Street. The

elevated and at-grade construction for Alternative C9A is anticipated to have a shorter duration than *Preferred Alternative C11A*, which includes a station on Main Street, and C9T, which is a tunnel alternative. Alternative C9A would not impact the potential Surrey Downs historic district.

Alternative C14E is located far enough away from the Surrey Downs subdivision to have no impacts on the resources within it.

Segment D

Preferred Alternative D2A would not affect any historic resources. There are no historic properties within the Alternatives D2A - 120th and - NE 24th Design Options, D2E, or D5 APE.

With Alternative D3, construction in a retained cut near the former Bellevue Fire Station would not affect the property. Although the building's parcel is situated inside the APE, the building itself is outside the APE and would not be adversely impacted by the construction activities proposed. Alternative D3 would not result in any adverse visual, audible, or atmospheric elements that would adversely impact the property or use of the property.

Segment E

Preferred Alternative E2 and E2 - Redmond Transit Center Design Option that continue west and turns north on 161st Avenue NE to Redmond Transit Center would not pass close enough to the Justice William White House, the Redmond Trading Company building, or the Bill Brown Saloon to cause an adverse impact on the historic context or to potentially damage the buildings during construction. *Preferred Alternative E2* would temporarily increase noise and dust and result in visual change from construction activities, but these impacts would not be adverse. In addition, existing vegetation and NE 76th Street, which separate the Justice William White House from the trackway, would further minimize the visual change and dust. Project construction would not adversely impact the character-defining features of the property or use of the historic property. *Preferred Alternative E2* would temporarily increase noise and dust and result in visual change caused by construction activities, but these would not be adverse impacts.

Alternative E1 is in the same location as *Preferred Alternative E2* near the Justice William White House, the Redmond Trading Company building, and Bill Brown Saloon. Therefore, Alternative E1 would have the same temporary noise, dust, and visual impacts on the resource as *Preferred Alternative E2* and would not adversely impact the properties or use of the historic properties.

Alternative E4 would require relocating the Justice William White House, which would cause an adverse impact, as discussed above under Section 4.16.3.3, Impacts during Operations.

4.16.3.5 Maintenance Facilities

There are no historic properties located in the APE for maintenance facilities; therefore, no historic properties would be affected by operation or construction of these facilities.

4.16.4 Potential Mitigation Measures

Given that FTA, in consultation with SHPO, has made a determination of Adverse Effect for the project, an MOA is required pursuant to 36 CFR 800.6[c]. Adverse impacts on historic properties must be resolved through the Section 106 process by preparing an MOA.

An MOA contains stipulations specifying avoidance, minimization, or mitigation measures to be implemented to resolve the potential impacts. A draft MOA, included in Appendix I, addresses potential impacts for the preferred alternative on the Winters House, potential Surrey Downs historic district, and archaeological resources. The proposed measures for these resources are described in this section.

4.16.4.1 Archaeological Sites

Although some potentially sensitive archaeological areas are identified, studies to date have identified no NRHP-eligible prehistoric or historic-period archaeological sites in the project APE.

Although much of the APE has seen ground disturbance, fill, and development, it is possible that one or more archaeological sites may exist beneath the ground surface in areas where project excavation would take place. Project archaeologists would conduct additional subsurface testing before construction – activities referred to as Stage 2 survey – The Stage 2 Survey will provide additional information about the potential for uncovering historic resources for the project.

An archaeological resources monitoring and treatment plan (ARMTP or an Unanticipated Discovery Plan (UDP), would be prepared to guide archaeological monitoring work during East Link Project construction. FTA and Sound Transit would coordinate with SHPO, the Muckleshoot and Snoqualmie Tribes, and other interested parties as appropriate, to review the plan.

In the event that significant archaeological deposits are inadvertently discovered during construction in any portion of the project study area, ground-disturbing activities would be halted and the procedures of the

ARMTP or UDP followed. If ground-disturbing activities encounter human skeletal remains during the course of construction, FTA and Sound Transit would implement relevant procedures in the ARMTP or UDP and follow federal and state laws regarding the discovery of human remains. If the remains are determined to be Indian, FTA and Sound Transit would notify DAHP and the affected Tribes to consult regarding treatment of the remains.

4.16.4.2 Historic Buildings and Structures

The East Link *Preferred Alternative B2M* has the potential to cause an impact on the Winters House. *Preferred Alternative C11A* and Alternatives C4A, C2T, and C3T have the potential to cause an impact on the potential Surrey Downs historic district. The project has the potential to cause an impact on the Justice William White House through Alternative E4.

The following typical BMPs would be incorporated into the project and all resources including the Safeway and the Bellevue Fire Station.

- Take precautions that historic properties are protected from vibrations, excavations, and damage from heavy equipment.
- Protect facades of affected historic buildings from an accumulation of excessive dirt and dust during construction, and/or clean them in an appropriate manner at the conclusion of construction. Sound Transit would consult with the SHPO before implementing any protection or cleaning methods.
- Control fugitive dust using measures listed in Section 4.6, Air Quality.

Resource-specific minimization measures are described below.

Minimization of Operational Impacts on Winters House from *Preferred Alternative B2M*

- Incorporate standard methods of vibration reduction, such as resilient fasteners or ballast mats, into the project as necessary to reduce the level of groundborne noise and eliminate the impact. A floating slab would be incorporated in the project, if necessary, to eliminate the groundborne noise impacts.
- Landscape the area of property between the front (west elevation) of the Winters House and Bellevue Way SE to more closely reflect the landscaping of the historic period, in consultation with the City. Preserve, as practical, historic period plants that would be impacted by the project.

- Provide new interpretive display on or near the Winters House property, in consultation with the City of Bellevue.

Minimization of Construction Impacts on Winters House from *Preferred Alternative B2M*

- Photograph and inventory the building to establish existing conditions.
- Install vibration and settlement monitoring devices and adjust excavation methods based on monitoring results.
- Use specific vibration- and settlement-reducing construction methods (to be determined during final design and construction).
- Potentially build a construction barrier around Winters House to prevent damage and minimize dust.
- Close the Winters House during construction and temporarily relocate the tenant (Sound Transit would provide information to the public regarding how to access the Eastside Heritage Center during construction).
- If damage does occur, make the needed repairs consistent with the U.S. Secretary of the Interior's standards for treating historic properties.

Minimization of Operational Impacts on Pilgrim Lutheran Church from Alternative B1

- Avoid stormwater vault maintenance during church services and special events to the extent possible.
- Minimize parking space obstruction during stormwater vault maintenance.

Minimization of Construction Impacts on Pilgrim Lutheran Church from Alternative B1

- Apply typical BMPs to minimize and avoid construction impact.
- Avoid construction during church services and special events to the extent possible.
- Restore disturbed areas following construction.

Minimization of Operational Impact on NRHP-Eligible Surrey Downs Historic District From *Preferred Alternative C11A*

- Install a permanent sound barrier along the south side of the guideway along Main Street to prevent noise impacts on contributing properties in the potential Surrey Downs Historic District.
- Landscape along south side of the guideway and the 108th Station along Main Street where noncontributing properties are removed.

From Alternative C4A

- Install a permanent sound barrier along the south side of the guideway along Main Street adjacent to contributing properties.
- Landscape along the south side of the guideway along Main Street to enhance the neighborhood boundary where noncontributing properties are removed.

Minimization of Construction Impact on NRHP-Eligible Surrey Downs Historic District**From Preferred Alternative C11A and Alternative C4A**

- Apply typical BMPs to minimize and avoid construction impacts.
- Before construction begins, install a solid construction barrier along contributing properties south of Main Street.
- Where possible, preserve the evergreen trees along the south edge of the proposed station area, east of 108th Avenue SE.

From Alternatives C2T and C3T

- Apply typical BMPs to minimize and avoid construction impacts.

- Before construction begins, install a solid construction barrier along contributing properties south of Main Street.

Mitigation Measures for Adverse Impact on Justice William White House from Alternative E4

Consult with SHPO to determine whether an appropriate location can be found to relocate this resource. If such a location can be determined, FTA and Sound Transit would consult with SHPO, the City of Redmond, and other interested parties to develop and to determine a suitable relocation site that preserves the Justice William White House's setting, feeling, and association with the railroad, thus maintaining its eligibility for the NRHP. The relocation would be managed by qualified architects and engineers in a manner to avoid damage to the building and preserve its eligibility for listing in the NRHP. Prior to relocating the building, Sound Transit would fully record the building in its original context through a Level II Historic American Building Survey/ Historic American Engineering Record documentation. This would include photographs, measured drawings, and a written history component. If alternative E4 were selected, then the MOA would be altered to include mitigation for the Justice William White House.