bridge 20 feet higher than the existing bridge. The bridge would connect with the western land connection at the existing elevation. Columns supporting the structure would generally be spaced 250 feet apart, compared to the current bridge's 100-foot column spacing. The bridge would include an additional westbound lane that would merge buses from the Montlake transit stop and cars from Montlake Boulevard westbound. The bridge alignment would shift to the north to accommodate the widened bridge. The southern edge of the bridge would move north 19.66 feet at the western edge of the bridge, 42.65 feet in the middle of the bridge, and 24.5 feet at the eastern edge of the bridge. In addition, the installation of a sound wall on SR 520 would further decrease audible effects. The existing noise level at the receptor closest to this point is 70 dBA. The construction of the proposed sound wall would result in a noise level of 58 dBA, a substantial decrease of 12 dBA.

NOAA Northwest Fisheries Science Center

The main building of the NOAA Northwest Fisheries Science Center on Montlake Boulevard (determined eligible for the NRHP) would experience some proximity effects, including surrounding property loss, as well as increased visual intrusion because of the relocation of the Portage Bay Bridge closer to the building and because of the introduction of sound walls along SR 520. However, as a beneficial effect, the introduction of sound walls would help decrease sound levels and would provide some visual screening from the wider shoulders on SR 520. Existing sound levels in this area range from 66 to 69 dBA. The proposed sound wall would lower these levels to 57 to 61 dBA. While the increased visual intrusion would not likely be severe enough to be considered adverse, the loss of surrounding property could lead to an impairment of the setting and a resultant adverse effect.

Proposed Montlake Historic District

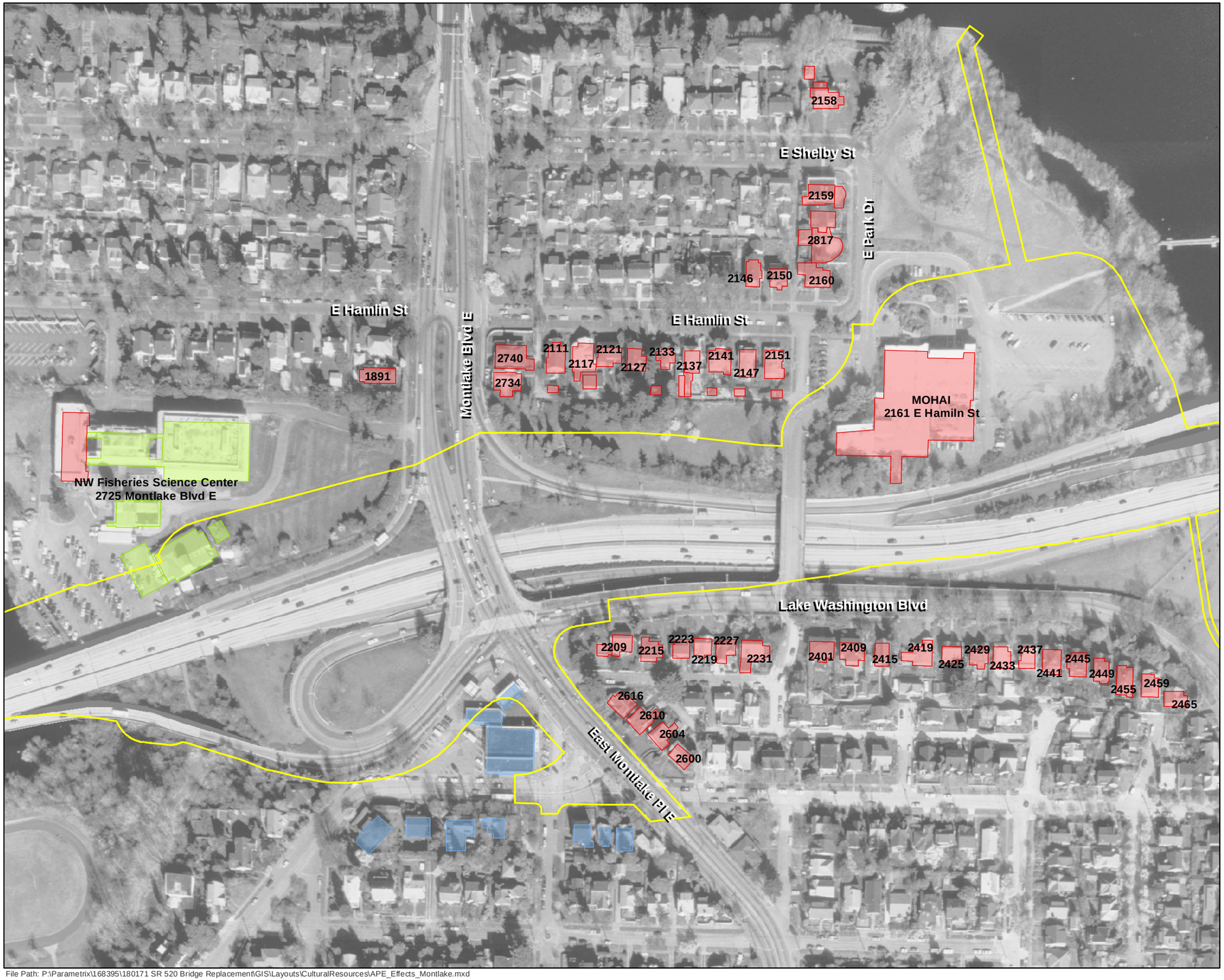
The 4-Lane Alternative would have proximity effects on selected buildings in the NRHP-eligible proposed Montlake historic district (**Exhibit 38**). The wider shoulders and new bicycle/pedestrian path proposed to be built as part of the project would create a partial loss of the landscaped buffer zone behind the rear property lines of the buildings along the south side of East Hamlin Street. Loss of the buffer zone would increase visual intrusion. However, the installation of sound walls along SR 520 would have the beneficial effect of lowering the sound level in the Montlake area. Existing sound levels in this area 75 dBA. The installation of sound walls would lower sound levels to

52 to 72 dBA, thus decreasing sound levels in this historic district. Of the 31 noise monitoring locations in the historic district, 21 locations would have decreases of 1 to 10 dBA, three locations would have increases of 1 to 2 dBA, and seven locations would have no changes in noise levels. See Appendix M, *Noise Discipline Report*, for more information. In addition, the existing SR 520 roadway through Montlake would be lowered up to 4 feet, which would decrease the audible and visual effects of the highway on the surrounding historic district.

On the north side of SR 520, the houses along East Shelby Street and the east end of East Hamlin Street would experience a visual effect from the replaced 24th Avenue East bridge, which would be 15 feet higher than the existing bridge, and from the introduction of the new bicycle/pedestrian path reaching from the SR 520/24th Avenue East bridge through McCurdy Park along East Park Drive.

On the south side of SR 520, houses on East Lake Washington Boulevard near the 24th Avenue East bridge over SR 520 would experience an increased visual effect from the rebuilt bridge, which would be 15 feet higher than the existing bridge. They would also experience a visual effect from the new sound wall. Houses at the west end of East Lake Washington Boulevard and those facing East Montlake Place East would experience increased visual and audible effects because of widening of East Montlake Place East and also widening of the intersection of East Montlake Place East and Lake Washington Boulevard East at the SR 520 on- and off-ramps. However, the installation of sound walls at the SR 520 on- and off-ramps would have a beneficial effect.

Removal of the R. H. Thompson Expressway ramps west of the Arboretum would have a beneficial effect that would allow this area to be redeveloped for trails, paths, and other facilities. Because the new west approach to the Evergreen Point Bridge would be higher than the existing roadway, the new traffic ramps would be higher and east of the existing ramps, farther away from the historic residences. Even with the increased height, the new ramps would be below the tree line, so they would not have an adverse visual effect on the surrounding NRHP-eligible proposed Montlake historic district on the south side of SR 520. Most of the remaining “canal reserve land” along the north side of SR 520 would be removed.



4-Lane Footprint

Not NRHP Eligible

NRHP Eligible Historic District

Contributing

Non-Contributing

N

0 50 100 200 Feet

Exhibit 38. **Effects of the 4-Lane Alternative on Historic Resources in Proposed Montlake Historic District**

SR 520 Bridge Replacement and HOV Project

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A beneficial effect for the northern section of the Arboretum is the redevelopment of the existing trail system and the addition of two new trail connections. Redevelopment and expansion of the trail system in this area would help complete the loop trail through the Arboretum and provide additional links north and south of SR 520. For more information on effects to recreational resources, see Appendix O, *Recreation Discipline Report*.

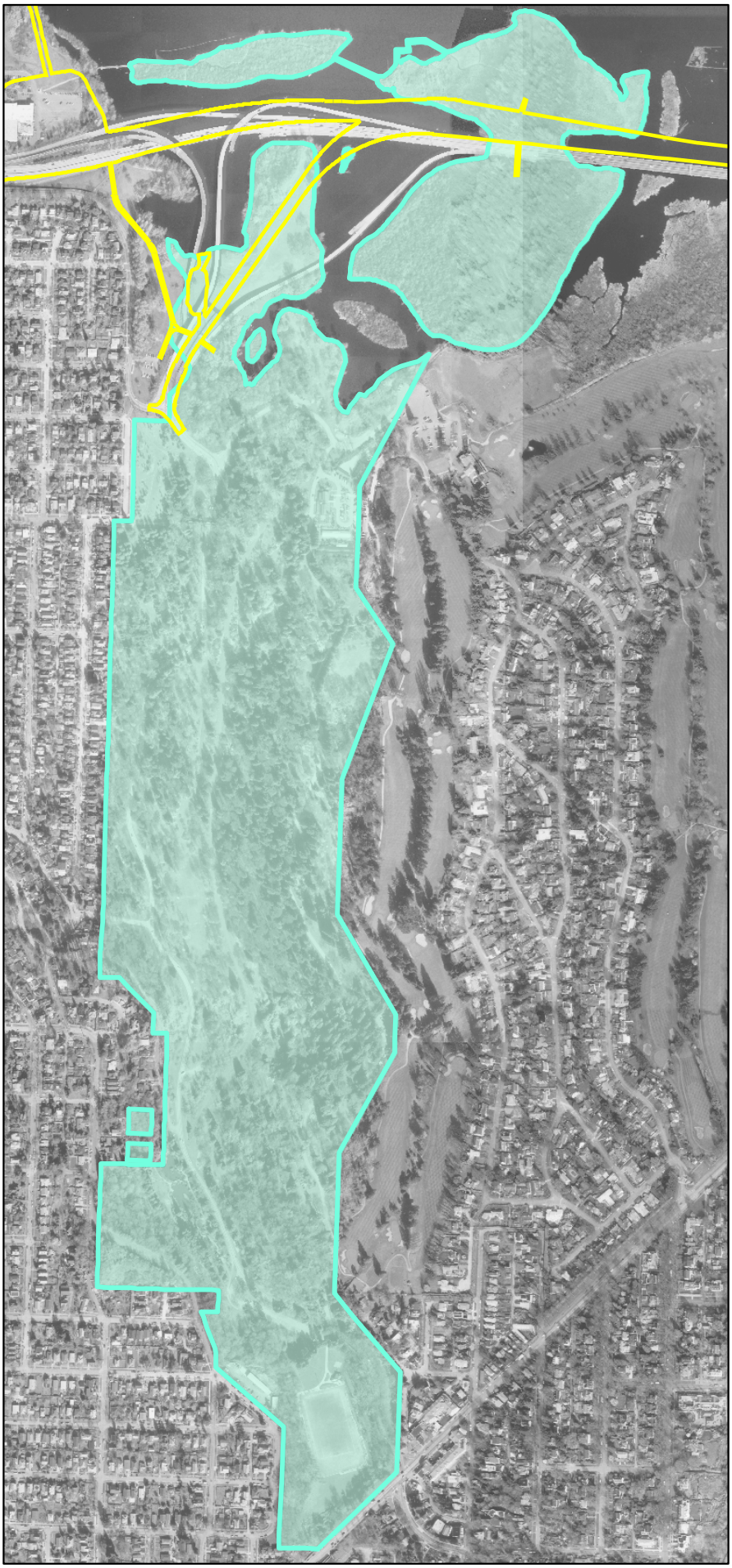
Museum of History and Industry

The 4-Lane Alternative would demolish MOHAI, which is located at 2161 East Hamlin Street within the NRHP-eligible proposed Montlake historic district (**Exhibit 38**). Even if a portion of the building could be retained, the original, historic southern portion of the building would be removed. The expanded lanes would negatively affect the setting. The new bicycle/pedestrian path and stormwater treatment wetland would eliminate most of the existing parking for MOHAI, greatly reducing its viability as a public facility and further affecting the setting. The higher elevation of the 24th Avenue East bridge over SR 520 and the west approach to the Evergreen Point Bridge would also negatively affect the setting and have an adverse visual effect on the site.

Washington Park Arboretum

The proposed westbound lanes of SR 520 would intrude approximately 81 feet northward onto Foster Island (**Exhibit 39**). Land acquisition would be 1.7 acres, or 5.5 percent of Foster Island, but less than 1 percent of the total Arboretum. The highway mainline would be elevated approximately 43 feet above the Arboretum Waterfront Trail on Foster Island; the land underneath the footprint of the highway could, therefore, be returned to park use after construction, except for the area required for the piers necessary to support the highway structure. Because of the proposed northern shift of the highway alignment, the area of the existing SR 520 footprint (roughly 0.64 acre) and the current right-of-way south of SR 520 (roughly 1.1 acres) could be returned to park use after the construction of the proposed project (1.74 acres total). The resulting net gain would be roughly 0.04 acre of park land on Foster Island.

Current noise levels in the northern part of the Arboretum (Foster Island and the adjacent Marsh Island) would be expected to decrease due to construction of the proposed sound walls on both sides of SR 520. Because the highway mainline would be elevated approximately 43 feet above the Arboretum Waterfront Trail, the



4-Lane Footprint

Washington Park Arboretum

N

0 250 500 1,000 Feet

Exhibit 39. **Effects of the 4-Lane Alternative on Washington Park Arboretum**

SR 520 Bridge Replacement and HOV Project

File Path: P:\Parametrix\168395\180171 SR 520 Bridge Replacement\GIS\Layouts\CulturalResources\APE_Effects_Montlake.mxd

highway would become a more dominant and highly visible feature that would affect the visual environment for Arboretum Waterfront Trail users. Similarly, the visual landscape looking north to Marsh and Foster islands from the south side of SR 520 would also change with the addition of new, higher, west-to-south and north-to-east Lake Washington Boulevard ramps.

The Arboretum Waterfront Trail currently crosses under SR 520 in a tunnel. The increased elevation of the SR 520 structure would allow the trail to be reconstructed at-grade, instead of passing through the tunnel. Although slight shading could occur on the trail, the beneficial effect of "daylighting" the trail (the SR 520 structure would be more than four stories above the trail) would outweigh any shading that could occur. New west-to-south and north-to-east Lake Washington Boulevard ramps and a stormwater treatment wetland would be built south of the proposed SR 520 mainline. As discussed earlier, although this area is perceived to be part of the Washington Park Arboretum, it is actually within WSDOT right-of-way. While some of the existing mature trees and grass would be removed to accommodate the new ramps, the existing ramps would be removed and that area would become available for recreational use. Additionally, because the new ramps would be closer together, less overall area would be covered, resulting in larger contiguous portions of open space available for park use. For more information on effects to park lands, see Appendix O, *Recreation Discipline Report*.

Attachment 4 summarizes the effects of the 4-Lane Alternative on historic resources that have been determined eligible for the NRHP in the Seattle project area by address. **Exhibits 37**, **38**, and **39** graphically display the locations of the historic resources identified in Attachment 4.

6-Lane Alternative

The project could have long-term proximity effects on several historic resources in the Seattle project area.

Proposed Roanoke Park Historic District

The NRHP-eligible proposed Roanoke Park historic district includes Roanoke Park (see **Exhibit 40**). The park has historically been associated with the neighborhood and is an integral part of the district. The 6-Lane Alternative would have proximity effects on Roanoke Park and selected buildings in the NRHP-eligible proposed Roanoke Park historic district. See Appendix O, *Recreation Discipline Report,* for more information.

6-Lane Footprint

Not NRHP Eligible

NRHP Eligible

NRHP Eligible Historic District

Contributing

Non-Contributing

N

0 50 100 200 Feet

Exhibit 40. **Effects of the 6-Lane Alternative on Historic Resources in the Roanoke, Portage Bay, and North Capitol Hill Neighborhoods**

SR 520 Bridge Replacement and HOV Project

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