

Exhibit 16: Locus V shovel probe results

Shovel Probe #	Depth BGS	Soil Description	Cultural Material Identified
A-1	100 cm	Duff over yellowish brown, silty loam with 25% subrounded to subangular gravels over a reddish brown, fine sand with 30% subrounded to subangular gravels over a light olive brown, medium sand with 35% subrounded to subangular gravels	None
A-2	100 cm	Dark brown loam over a dark yellowish brown, sandy loam with 15% pebbles over a yellowish brown sand with 20% pebbles	One green carpet fragment (modern), three clear vessel glass fragments (modern)
A-3	70 cm	Duff over a very dark brown, sandy silt loam over a dark yellowish brown, sandy silt loam with less than 40% gravels; encountered water table at 70 cm	None
A-4	100 cm	Dark brown sandy loam with 15% pebbles over a yellowish brown, sandy loam with light brown, medium sand and 20% pebbles; encountered water table at 90 cm	None
A-5	85 cm	Duff over dark brown, silty loam with 10% subrounded to subangular gravels over yellowish brown, silty sand with 20% subrounded to subangular gravels over light olive brown, medium sand with 30% subrounded to subangular gravels	None
A-6	100 cm	Duff over dark brown, sandy silt loam with 30% gravels over a dark yellowish brown, sandy silty loam with 30% gravels	None
A-7	90 cm	Very dark brown, compact sandy silty loam with less than 40% subrounded to subangular pebbles and cobbles over dark yellowish brown, sandy silt loam to sandy loam with 50% gravels	One asbestos shingle fragment, one cryptocrystalline decortication flake
A-8	100 cm	Duff over dark brown, sandy silt loam with 30% subrounded to subangular gravels and cobbles over dark yellowish brown, sandy silty loam	Two insulator fragments, one round nail, eight asbestos fragments, two clear flat glass fragments, three clear vessel glass fragments, one unidentifiable ceramic fragment
A-9	82 cm	Duff over dark brown, silty loam with 15% subrounded to subangular gravels over dark yellowish brown silt with 20% subrounded to subangular gravels over light olive brown, silty sand with 30% subrounded to subangular gravels	One light bulb base fragment, one mammal bone fragment (not culturally modified)
A-10	92 cm	Dark brown loam with less than 5% gravels over dark yellowish brown, silty sand with 20% subrounded to subangular gravels over a light olive brown, sandy silt with 20% gravels	None
A-11	92 cm	Very dark brown, sandy silty loam with less than 30% gravels and cobbles and abundant roots over a dark yellowish brown, sandy silt to sandy loam with 50% gravels and cobbles, and iron oxide mottling increasing in depth over a hardpan till	One clear vessel glass fragment
A-12	98 cm	Dark brown, sandy silty loam with less than 5% gravels over a yellowish brown, silty sand with 20% gravels; encountered water table at 90cm	Wire fence staple (modern)

Shovel Probe #	Depth BGS	Soil Description	Cultural Material Identified
A-13	100 cm	Silty loam sod over a dark brown, silty loam with 20% subrounded to subangular gravels over a yellowish brown silt with 35% subrounded to subangular gravels and cobbles over an olive brown, silty sand with 40% subrounded to subangular gravels	Six glass fragments (modern), three plastic fragments (modern)
B-1	75 cm	Duff over a dark brown, silty loam with 15% subrounded to subangular gravels over a yellowish brown, silt with 20% subrounded to subangular gravels over olive brown, silty sand with 30% subrounded to subangular gravels and cobbles; water table encountered at 75 cm	One plastic fragment (modern)
B-2	96 cm	Dark brown, silty sand with organics over a yellowish brown, silty sand with 20% subrounded to subangular gravels	One plastic fragment (modern), one olive carpet fragment (modern), one brown vessel glass fragment (modern)
B-3	66 cm	Duff with abundant organics over dark brown, silty loam with 15% subrounded to subangular gravels over yellowish brown silt with 20% subrounded to subangular gravels over a silty sand with 30% subrounded to subangular gravels; water table encountered at 66 cm	None
B-4	82 cm	Dark brown, silty sand with abundant organics with less than 5% subrounded to subangular gravels over a yellowish brown, silty coarse sand with 20% subrounded to subangular gravels over olive brown, silty coarse sand with 20% subrounded to subangular gravels	None
B-5	63 cm	Duff with organics over a dark brown, silty loam with 10% subrounded to subangular gravels over yellowish brown silt with 15% subrounded to subangular gravels; water table encountered at 63 cm	None
B-6	50 cm	Dark brown, sandy silt with 15% gravels water table encountered at 40 cm.	One clear vessel glass fragment (modern)

*Exhibit 17: Site 45KI756, Locus V, shovel probe results*

Shovel Probe #	Depth BGS	Soil Description	Cultural Material Identified
0S/4W	79 cm	Very dark grayish brown gravelly sandy loam with 15% subrounded to rounded gravels over dark yellowish brown fine gravelly sand mottled with light olive brown gravelly coarse silt becoming increasingly compact with depth-terminated at 79 cm due to encounter with large rock	None
0S/8W	90 cm	Very dark grayish brown, clayey sandy loam with less than 30% subrounded to rounded gravels over a dark yellowish brown compact sandy loam with 30% gravels and cobbles over a light olive brown hardpan till	One clear vessel glass fragment
0S/10W	82 cm	Very dark grayish brown, clayey sandy loam with less than 30% subrounded to rounded gravels over a dark yellowish brown compact sandy loam with 30% gravels and cobbles and clasts of pale olive clayey sand over a light olive brown hardpan till	None

Shovel Probe #	Depth BGS	Soil Description	Cultural Material Identified
2S/2W	90 cm	Very dark brown silty loam with 20% subrounded to subangular gravels and cobbles over a dark yellowish brown gravelly sandy loam over a dark yellowish brown gravelly fine sand with 20% subrounded to subangular gravels and cobbles over a very compact mottled olive yellow to light olive brown till	Four plastic fragments-modern, one clear vessel glass fragment
2S/6W	90 cm	Very dark grayish brown compact clayey sandy loam with 20% to 30% subrounded gravels and cobbles over dark yellowish brown compact sandy loam with 30% subrounded to rounded gravels over light olive brown hardpan till	One piece clear vessel glass, one cryptocrystalline core
2S/8W	90 cm	Very dark grayish brown compact clayey sandy loam with less than 30% gravels-cobbles over a compact dark yellowish brown sandy loam with 30% gravels and cobbles with pieces of manganese and iron oxide concentration over a light olive brown hard pan till	One clear vessel glass fragment
2S/10W	85 cm	Very dark grayish brown, clayey sandy loam with less than 30% subrounded to rounded gravels over a dark yellowish brown compact sandy loam with 30% gravels and cobbles over a light olive brown hardpan till	None
4S/4W	97 cm	Very dark brown silt loam with 40% subrounded to subangular gravels over dark yellowish brown with 30% to 40% subrounded to subangular gravels and cobbles over light olive brown hardpan till	One clear vessel glass fragment
4S/8W	75 cm	Very dark grayish brown sandy loam with 20% subrounded gravels over dark yellowish brown sandy loam with 20% to 30% subrounded to rounded gravels over olive brown gravelly fine sand with less than 30% gravels	One clear vessel glass fragment, one round nail
6S/2W	90 cm	Dark brown very gravelly silty loam with 40% subrounded to subangular gravels and cobbles over a dark yellowish brown sandy loam with 30% to 40% subrounded to subangular gravels and cobbles over a light olive brown till	Twelve clear vessel glass fragments, one clear glass base fragment
6S/6W	90 cm	Dark brown compact clayey sandy loam with 30% gravels and cobbles over dark yellowish brown, compact sandy loam with 30% gravels and cobbles over light olive brown hardpan till	Two pieces asbestos cladding, one round nail, one clear pane glass fragment
6S/4W	95 cm	Very dark grayish brown, sandy loam with 30% to 40% subrounded to rounded gravels over a dark yellowish brown, sandy loam with 40% subrounded to rounded gravels and cobbles over a light olive brown hard pan till	One round nail, two plastic fragments
6S/8W	75 cm	Very dark grayish brown, sandy loam with 20% subrounded to rounded gravels over a dark yellowish brown, sandy loam with 20 to 30% subrounded to rounded gravels over an olive yellow to light olive brown, gravelly fine sandy with less than 30% gravels	One round nail, one clear glass vessel fragment
8S/2W	100 cm	Dark gray brown, compact gravelly sandy loam with rootlets and 20% to 30% gravels over a dark yellowish brown, sandy gravelly loam with 40% to 50% gravels over a light olive brown hardpan till	None
8S/4W	98 cm	Very dark brown, gravelly sandy silty loam with 20% to 30% subangular to subrounded gravels over a dark yellowish brown, very fine silty sand with 40% subrounded to subangular gravels over a light olive brown hardpan glacial till	One round nail, one rubber fragment, one slate flake

Shovel Probe #	Depth BGS	Soil Description	Cultural Material Identified
8S/8W	95 cm	Very dark grayish brown, clayey sandy loam with less than 30% subrounded to rounded gravels over a dark yellowish brown, compact sandy loam with 30% gravels and cobbles over a light olive brown hardpan till	One bicycle tire cap, three clear vessel glass fragments, three round nails, eight asbestos fragments
10S/4W	120 cm	Very dark grayish brown, compact gravelly sandy loam with 20% to 30% gravels, pieces of charcoal, and root penetration, over a dark yellowish brown, compact sandy gravelly loam with 20% to 30% subrounded to rounded gravels and cobbles over a light olive brown hardpan till	Two pieces of pane glass, nine asbestos shingle fragments, one round nail
14S/6W	100 cm	Dark grayish brown, compact clayey sandy loam with less than 30% gravels over a compact dark yellowish brown, sandy loam with less than 30% gravels and cobbles over clasts of light olive brown, sandy clay till	One brown bottle fragment, modern (beer)
2N/6W	114 cm	Very dark brown, silty loam with 30% subrounded to subangular gravels and cobbles over dark yellowish brown, silty loam, with grayish brown mottles, with 30% subrounded to subangular gravels and cobbles over light olive brown compact till	None
6N/6W	80 cm	Dark brown, silty loam with less than 30% subrounded to subangular gravels over dark yellowish brown, sandy silty loam with 40% subrounded to subangular gravels and cobbles over a light olive brown hard pan till	Fabric in the sidewall, modern

*Exhibit 18: Site 45KI756, Locus V, artifact descriptions and stratum association*

Shovel Probe #	Artifact Description	Depth BGS	Associated Stratum
A-2	Three clear vessel glass fragments, one olive green carpet fragment	0-12 cm	Stratum I
A-7 (Grid reference is C3-4S/6W)	One asbestos shingle/siding fragment, one cryptocrystalline decortication flake	Asbestos at 0-22 cm, Decortication flake at 27 cm	Stratum I-II
A-8	Eight asbestos shingle fragments, one insulator fragment, one unidentifiable ceramic fragment, two clear flat glass fragments, three clear vessel glass fragments, one round nail (bent)	5-80 cm	Stratum I-II
A-9	One light bulb base fragment, one mammal bone fragment	10 cm	Stratum II
A-11	One clear vessel glass fragment	61 cm	Stratum II
A-12	One wire fence staple	48-92 cm	Stratum II
A-13	Six glass fragments	Upper 15 cm	Stratum I
B-2	One plastic fragment, two carpet fragments, one amber vessel glass fragment	Upper 20 cm	Stratum II
B-6	One clear vessel glass fragment	30 cm	Stratum I
0S/8W	One clear vessel glass fragment	Upper 25 cm	Stratum I
2S/2W	One clear vessel glass fragment, four plastic fragments	Upper 30 cm	Stratum I

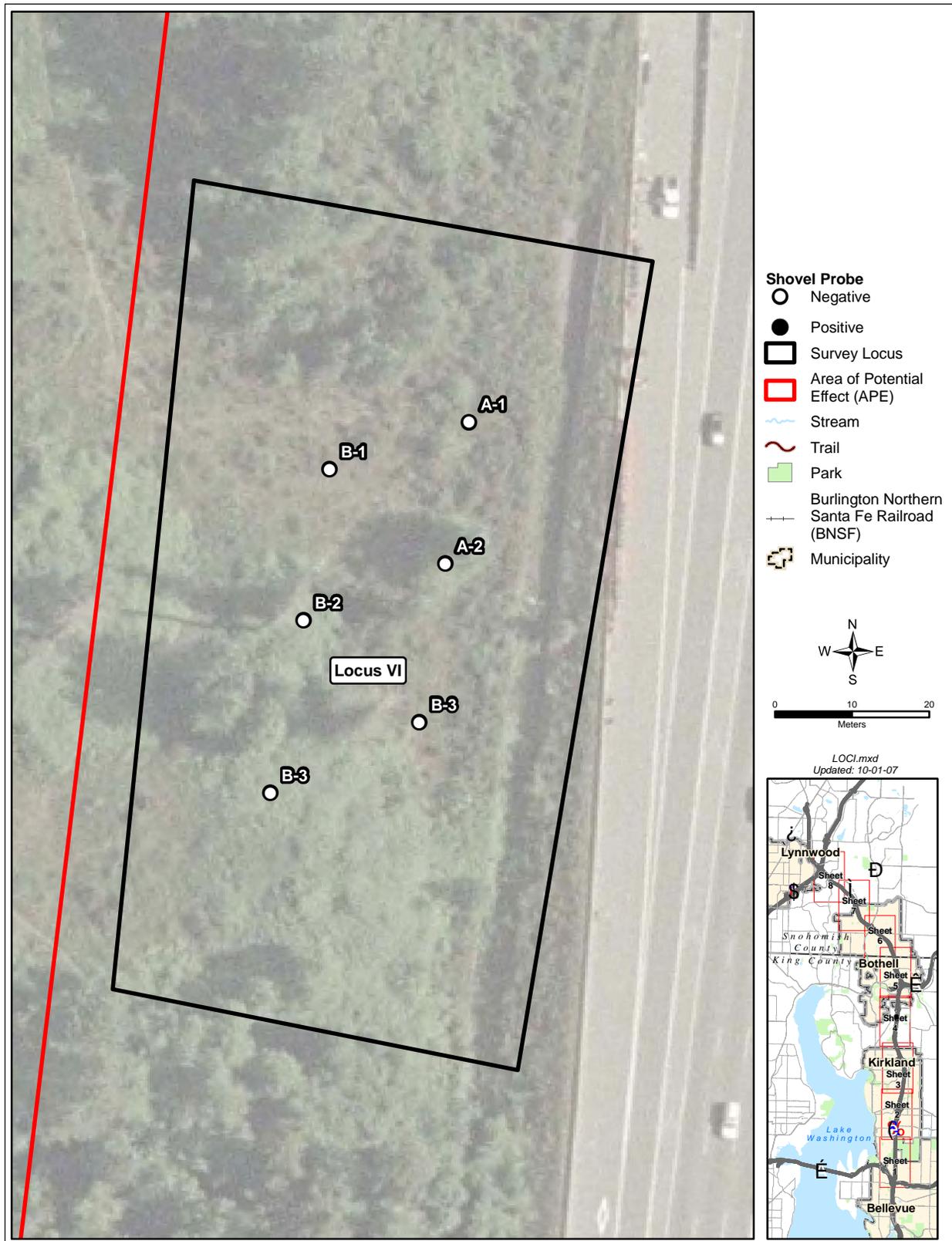
Shovel Probe #	Artifact Description	Depth BGS	Associated Stratum
2S/4W	One clear vessel glass fragment	53 cm	Stratum II
6S/4W	One round nail, two plastic fragments	Upper 20 cm	Stratum I
2S/6W	One clear vessel glass fragment, one cryptocrystalline core	Glass in upper 25 cm and core between 60-70 cm	Stratum I-II
2S/8W	One of clear vessel glass fragment	Upper 20 cm	Stratum I
4S/4W	One clear vessel glass fragment	56 cm	Stratum II
4S/8W	One clear vessel glass fragment, one round nail	Upper 20 cm	Stratum I
6S/2W	Twelve clear bottle fragments, one clear base fragment	Upper 20 cm	Stratum I
6S/6W	One clear pane glass fragment, one round nail, two asbestos fragments	Upper 30 cm	Stratum I
8S/4W	One round nail, one rubber fragment, one slate flake	Nail and rubber in upper 20 cm; slate flake at 68 cm	Stratum I-II
8S/8W	Three round nails, eight asbestos cladding fragments, three clear vessel glass fragments, one bicycle tire cap	Upper 35 cm	Stratum I
10S/4W	Two pieces of pane glass, nine asbestos shingle fragments, one round nail	Upper 40 cm	Stratum I
14S/6W	Beer bottle fragment	Upper 40 cm	Stratum I

### ***Proposed pond location at MP 22.3 (Locus VI)***

Locus VI is a location for a proposed pond near MP 22.3 (Exhibit 8, sheet 6; Exhibit 19). A view of the survey area appears in Appendix E, Exhibit 3, Photograph 6. Six shovel probes were placed in two transects. The transects were 20 meters apart with each shovel probe approximately 20 meters apart within each transect. The area is relatively flat and the vegetation consists of Himalayan blackberry brambles that have been burned off, with a wetland to the southwest.

Two gravelly sediment horizons with an indistinct boundary were uncovered – a very dark grayish brown to grayish brown loam over a very dark grayish brown to grayish brown coarse sandy loam with olive brown mottles (Exhibit 20). The sediments observed in Locus VI are not representative of locally occurring Alderwood-Arents soils (Snyder et al. 1973). Rather, the sediment profile appears to have been disturbed by grading and grubbing. The relatively high density of gravels (30 to 40 percent), lack of soil horizonation, the presence of mottles, and the buried wood debris that exhibits no sign of decomposition suggests that the area has undergone extensive churning of sediments and is also predominantly fill placed as road prism material. No cultural material was recovered in the shovel probes.

Exhibit 19: Locus VI shovel probes



*Exhibit 20: Locus VI shovel probe results*

<b>Shovel Probe #</b>	<b>Depth BGS</b>	<b>Soil Description</b>	<b>Cultural Material Identified</b>
A-1	36 cm	Dark grayish brown loam with 15% gravels over a grayish brown sandy gravel with 30% gravels	None
A-2	77 cm	Grayish brown silty sand with 40% subrounded to subangular gravels and cobbles, becomes increasingly compact with depth	None
A-3	41 cm	Very dark grayish brown, sandy silty loam with 30% gravels over very dark grayish brown, compact coarse gravelly sandy loam with olive brown mottling and less than 50% subangular to subrounded gravels; shovel probe became impervious to further testing because of compact gravels	None
B-1	100 cm	Dark grayish brown, sandy loam over grayish brown, sandy loam with 20% gravels over gray sand with red oxidization and 20% subrounded to subangular gravels over a grayish brown, moderate sand with 20% gravels over undecomposed wood and organics over olive brown, coarse sand with less than 5% subrounded to subangular gravels	None
B-2	100 cm	Silty loam with abundant organics and evidence of recent fire over a silty sand with 50% subrounded to subangular gravels and cobbles	None
B-3	100 cm	Duff with organics over a dark grayish brown, sandy silty loam over a grayish brown, sandy silt loam with olive brown mottling over black, sandy silty loam, abundant wood fragments, wood bark, and tree root fragments	None

### ***Proposed location for sound/retaining wall at MP 23.5 to 23.0 (Locus VII)***

Locus VII, a proposed location for a sound/retaining wall, is located on a ridgeline above I-405 between MP 23.5 to MP 23.0. Local topography is undulating with moderate to steep side slopes (Exhibit 8, sheet 7; Exhibit 21). Douglas-fir, Western hemlock, Western red cedar, alder, and big-leaf maple forest is present with an understory of blackberry brambles, swordferns, stinging nettles, huckleberry, Indian plum, cascara, salmonberry, red elderberry, Oregon grape, and salal. An overview of the survey area appears in Appendix E, Exhibit 4, Photograph 7.

Because of the narrowness of the landform, one transect of 45 shovel probes was placed in this location (Exhibit 21). Shovel probes 1 through 17 were spaced approximately 10 meters apart, and shovel probes 17 through 45, farther from the Sammamish River Valley, were spaced approximately 20 meters apart. During the initial investigations, a prehistoric period archaeological site was discovered; two stone artifacts, a tested cobble, and a schist flake fragment were recovered in SP 33 at an approximate depth of 24 centimeters BGS.

The sediment profile revealed in probes consisted of forest litter over a dark brown to dark grayish brown horizon, over a dark yellowish brown horizon, over a basal stratum of compact light olive brown sandy silt (Exhibit 22). The sediments are well-drained, forested zone colluvium that represent typical Kitsap-Indianola soils (Snyder et al. 1973) formed in place by a slow accumulation of forest litter and subsequent decomposition into an illuvial horizon that

rests on weathered glacial sediments. The easternmost probes near the crest of the hill exhibited a stratigraphic unconformity, with the dark brown horizon immediately over the compact, light olive brown stratum.

### **Site 45KI757**

On June 28 and 29, 2007, and again on July 11, 2007, site 45KI757 was subjected to significance testing to further characterize the assemblage and determine the site boundaries. In consultation with WSDOT archaeologists, a testing plan was developed that involved excavating 50 shovel probes. The additional 50 probes are shown on the archaeological site form (Appendix D). Twenty-five probes were arrayed in an 8-meter by 10-meter grid, centering on the original finds, and excavated at 2-meter intervals to attempt recovery of additional artifacts in association with the original finds, and 25 probes were placed judgmentally across the ridge top near the grid probes to establish site boundaries (Exhibit 23). A view of the testing area appears in Appendix E, Exhibit 4, Photograph 8.

The three stratigraphic layers observed during the initial investigation were assigned designations to track artifact distribution, including Stratum I, a dark brown to dark grayish brown organic loam, over Stratum II, a dark yellowish brown sandy silt, over Stratum III, a olive light brown to olive brown fine sandy silt. In most cases, all three strata were present in the probe sidewalls (Exhibit 23).

Exhibit 21: Locus VII shovel probes

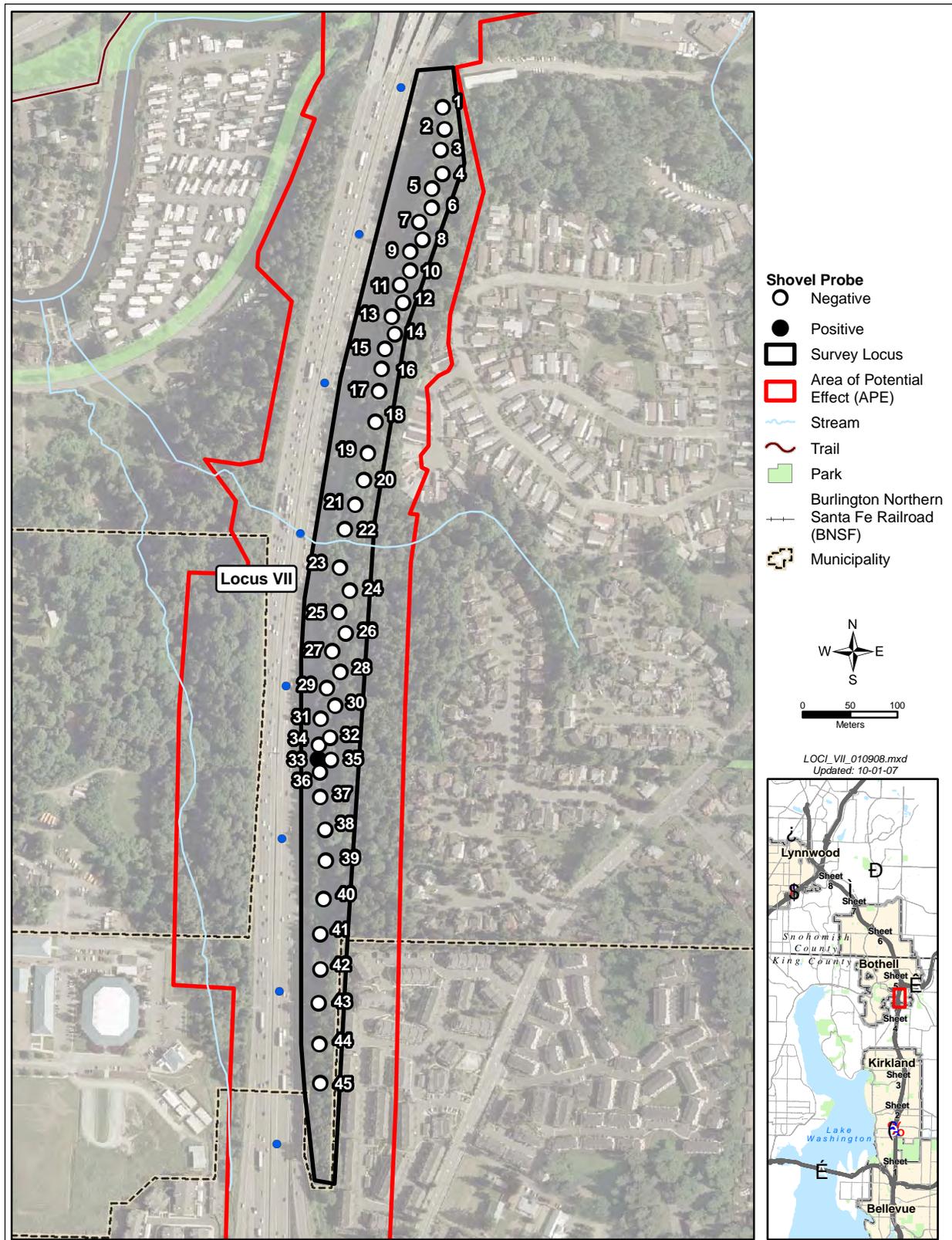


Exhibit 22: Locus VII shovel probe results

Shovel Probe #	Depth BGS	Soil Description	Cultural Material Identified
1	50 cm	Very dark brown, compact gravelly sand loam with less than 50% subangular to subrounded gravels over light olive brown, very compact gravelly loam with less than 60% subangular to subrounded gravels (till)	None
2	100 cm	Very dark grayish brown, compact sandy silt loam with less than 10% gravels over brown, sandy silty loam with less than 15% gravels over light olive brown, fine sandy loam with less than 10% subrounded gravels over light olive brown, fine sand with iron oxide staining	None
3	100 cm	Very dark grayish brown, compact sandy silty loam with rootlets and less than 10% gravels and pebbles over brown, compact sandy loam with less than 10% gravels over light olive brown, compact sandy loam with less than 10% subrounded to rounded gravels	None
4	82 cm	Duff with organics over dark grayish brown, compact silty loam with 5% subrounded to subangular gravels; encountered large root	None
5	29 cm	Dark brown, silty clay with organics; water table at 29 cm	None
6	50 cm	Dark brown, silty clay with organics over olive brown sand with gravels and cobbles; water table 50 cm	None
7	72 cm	Duff with organics over dark grayish brown, compact silty loam with less than 1% rounded gravels over olive brown with 5% subrounded to subangular gravels over glacial till	None
8	100 cm	Dark brown, silty sandy loam over olive brown, compact clayey silt with red oxidization with gravels	None
9	90 cm	Duff over dark brown, compact silty loam with abundant roots and 5% to 10% subrounded to subangular gravels over dark yellowish brown, compact silt with 1% gravels overlaying glacial till	None
10	100 cm	Very dark grayish brown, very compact sandy silt loam with organics and less than 30% angular to rounded gravels over brown, compact sandy silt loam with less than 20% gravels and clasts of olive brown clay over dark yellowish brown, compact sandy loam with less than 20% gravels over light olive brown, sandy loam and less than 10% gravels	None
11	100 cm	Duff with organics over dark brown, compact silty loam, abundant roots, and 5% subrounded to subangular gravels over dark yellowish brown, fine to medium sand with 5% to 10% subrounded to subangular gravels over olive brown medium sand with 5% to 10% subrounded to subangular gravels	None
12	79 cm	Dark brown duff over grayish brown, silt loam over olive brown sand with gravels and red oxidation	None
13	40 cm	Very dark grayish brown, very compact sandy silt loam with abundant organics and less than 30% angular to rounded gravels and subangular gravels over brown, compact sandy silt loam with less than 30% angular to rounded gravels encountered water table at 30 cm	None
14	75 cm	Duff with organics over dark brown, compacted silty loam with less than 1% subrounded to subangular gravels over dark yellowish brown, fine sand with less than 1% gravels; water table was encountered at 70 cm and shovel probe was terminated	None

<b>Shovel Probe #</b>	<b>Depth BGS</b>	<b>Soil Description</b>	<b>Cultural Material Identified</b>
15	100 cm	Dark brown, organic silty loam over olive brown, silty sand mottled with red oxidization	None
16	25 cm	Brown, compact silty loam with extensive roots and 20% gravels terminated at 25 cm due to obstruction	None
17	100 cm	Duff over brown, compact sandy silty loam with less than 5% gravels over light olive brown, fine sandy loam with less than 5% gravels	None
18	100 cm	Duff with organics over dark brown, compact silty loam with less than 1% subrounded to subangular gravels over yellowish brown, compact silt with less than 1% subrounded to subangular gravels over olive brown, compact silty sand with 5% subrounded to subangular gravels	None
19	100 cm	Dark brown loam with sand inclusions over yellowish brown, sandy silt with 5% gravels	None
20	100 cm	Dark brown, silty loam with less than 1% subrounded to subangular gravels over olive brown, medium sand	None
21	100 cm	Duff with organics over dark brown, silty loam with 5% subrounded to subangular gravels and abundant roots over yellowish brown silt with less than 1% subrounded to subangular gravels over olive brown, medium sand	None
22	60 cm	Dark brown duff with organics over olive brown, medium sandy loam	None
23	100 cm	Brown, loosely compact sandy loam with abundant roots and less than 5% subrounded to rounded gravels over olive brown, compact sandy loam with less than 10% gravels	None
24	100 cm	Olive brown, sandy loam over dark brown, silty loam mottled with clay over gray clay with gravels and mottled with organics (possible fill)	None
25	90 cm	Duff with organics over olive brown, medium sand over dark brown, silty loam with fine sand and 5% subrounded to subangular gravels over yellowish brown, silt with 5% to 10% subrounded to subangular gravels	None
26	100 cm	Organic duff over dark brown, medium sandy loam dark yellowish brown, sand with red oxidization over medium brown sand	None
27	80 cm	Duff with organics over brown, silty sand with less than 20% subrounded to subangular gravels over olive brown, silty sand less than 20% subrounded to subangular gravels over very dark brown, silty loam	None
28	100 cm	Duff with organics over yellowish brown, silty sand with 1% subrounded to subangular gravels over olive brown medium sand	None
29	100 cm	Duff with organics over light brown loam over brown, medium sandy loam with 10% roots over olive brown, medium sand with a trace clay lens and red oxidization	None
30	100 cm	Duff with dark brown, sand silty loam over dark yellowish brown, compact sandy loam over olive brown, sandy loam	None

Shovel Probe #	Depth BGS	Soil Description	Cultural Material Identified
31	100 cm	Duff with organics over yellowish brown, fine sand with 5% subrounded to subangular gravels over olive brown, medium sand with less than 1% subrounded to subangular gravels	None
32	100 cm	Dark brown, sandy loam with roots	None
33	100 cm	Dark brown, sandy silty loam with less than 5% gravels over dark yellowish brown, sandy loam with less than 5% gravels over olive brown, sandy loam with less than 5% gravels and iron oxide staining	One metasedimentary tested pebble, one schist knife
34	100 cm	Duff with organics over dark yellowish brown, sandy loam with roots over mottled olive brown to dark yellowish brown sand with 10% gravels over light olive brown sand with less than 10% gravels	None
35	100 cm	Duff with organics over dark brown, silty loam with 15% subrounded to subangular gravels over yellowish brown, fine sand with 5% subrounded to subangular gravels over light olive brown, medium sand with less than 1% subrounded to subangular gravels	None
36	100 cm	Duff with organics over dark brown loam over yellowish brown sand gradually changing to light olive brown	None
37	100 cm	Duff with organics over dark brown, silty loam with roots and 5% subrounded to subangular gravels over yellowish brown, fine sand with less than 1% subrounded to subangular gravels over light olive brown, medium sand with no gravels	None
38	75 cm	Duff with organics over dark brown loam with three large cobbles over light olive brown sand	None
39	100 cm	Dark brown, sandy silt with organics over brown, sandy silt with abundant roots over dark yellowish brown, sandy loam with less than 5% subrounded to subangular gravels over olive brown, sandy loam with less than 5% rounded gravels	None
40	65 cm	Duff with organics over yellowish brown, fine sand with 5% subrounded to subangular gravels over a charcoal layer, which appears to be root burn, over dark yellowish brown, medium fine sand with 1% subrounded to subangular gravels	None
41	100 cm	Duff with organics over brown loam over olive brown sand	None
42	33 cm	Dark yellowish brown, very compact coarse sand with less than 30% to 40% gravels and pebbles over olive, very compact dense sand and gravel (till)	None
43	100 cm	Duff with organics over yellowish brown, silty loam with 20% subrounded to rounded gravels and cobbles over olive brown, medium sand with 15% subrounded to rounded gravels	None
44	100 cm	Duff with organics over yellowish brown, sandy loam with roots over olive brown sand with clay and 15% gravels and cobbles	None
45	100 cm	Dark brown over dark yellowish brown, sandy loam with 20% to 30% gravels and cobbles over olive brown, sandy loam with 20% to 30% gravels and cobbles	None

Exhibit 23: Site 45K1757, Locus VII, shovel probe results

Shovel Probe #	Depth BGS	Soil Description	Cultural Material Identified
A-1 2W/16S	109 cm	Dark yellowish brown, fine silty sand with less than 10% subrounded to rounded gravels with some roots and sparse charcoal fragments from root burn over olive brown, fine sand with less than 10% subrounded to rounded gravels	One piece of slate shatter, two slate flakes, one schist flake
A-2 2W/18S	80 cm	Dark yellowish brown, sandy loam over dark yellowish brown, fine sandy silt with less than 10% subrounded to rounded gravels and a slow gradation to olive brown, very compact fine sand	None
A-3 2W/20S	100 cm	Duff with dark brown, silty sandy loam with some rootlets over brown, fine silt with less than 10% subrounded to rounded gravels and abundant roots over olive brown, fine silty sand with less than 10% gravels and cobbles	Two slate flake fragments
A-4 2W/22S	80 cm	Duff with very dark brown over dark yellowish brown, fine sand with less than 10% subrounded gravels over light olive brown, fine sand with less than 10% subrounded to rounded gravels	None
A-5 2W/24S	100 cm	Duff with organics over very dark brown, silty loam with less than 10% subrounded to rounded gravels over dark yellowish brown, silty sandy loam, mottled with olive brown, with less than 10% subrounded to rounded gravels over olive brown, fine silty sand	None
A-6 2W/26S	90 cm	Very dark brown duff over dark yellowish brown, fine silty sand with less than 10% subrounded to rounded gravels with some roots and over light olive brown, fine sand with less than 10% subrounded to rounded gravels	One broken slate flake
B-1 4W/16S	100 cm	Very dark brown, sandy loam over dark yellowish brown, sandy loam between 20 cm to 30 cm of gradation to yellowish brown to light olive brown; less than 10% subrounded to rounded gravels over light olive brown, fine compact sand	One cryptocrystalline flake
B-2 4W/18S	100 cm	Dark brown, silty sand with less than 10% subrounded to rounded gravels over dark yellowish brown, silty sand with less than 10% subrounded to rounded gravels over olive brown, fine sand with less than 10% subrounded to rounded gravels	None
B-3 4W/20S	90 cm	Very dark brown, sandy loam fine sand with less than 10% subrounded to rounded gravels over dark yellowish brown, fine sandy with less than 10% subrounded to rounded gravels over light olive brown, compact fine sand	Three metasedimentary flakes
B-4 4W/22S	90 cm	Duff with very dark grayish brown over dark yellowish brown, fine sandy silt with less than 10% subrounded to rounded gravels over olive brown, fine sandy silt becoming increasingly compact in depth to a clayey silt with less than 10% subrounded to rounded gravels; roots extend down to 80 cm	None
B-5 4W/24S	80 cm	Very dark brown over dark yellowish brown, fine silty sand with less than 10% subrounded to rounded gravels with detrital tree bark and large red welded sand at 20 cm to 40 cm BGS with less than 10% pea-sized subrounded to rounded gravel and a few cobbles over olive brown, fine sand with less than 10% subrounded to rounded gravels, three subangular metamorphic cobbles between 70-80 cm and less than 10% gravels	None
B-6 4W/26S	44 cm	Duff with very dark brown, fine silty loam over dark yellowish brown, fine silty sand with less than 10% subrounded to rounded gravels encountered roots at 4 cm (impenetrable)	None

Shovel Probe #	Depth BGS	Soil Description	Cultural Material Identified
C-1 6W/16S	110 cm	Dark yellowish brown, loose fine sandy loam with organics, 40% pea-sized subrounded to rounded gravels, roots over dark yellowish brown, moderately compact sandy loam with 5% gravels, roots, sparse charcoal flecking over light olive brown, compact medium sand with less than 5% gravels, large roots	None
C-2 6W/18S	95 cm	Very dark brown, sandy loam over dark yellowish brown, very compact fine silty sandy loam over light olive brown, fine sand with less than 5% gravels; roots go to depth	Two broken slate flakes
C-3 6W/20S	90 cm	Duff with very dark brown, rich loam over dark yellowish brown, moderately compact sandy loam with 5% gravels, roots, and sparse charcoal flecking over light olive brown, compact medium sand with less than 5% of sand forming small peds, large roots (weathered glacial sediments)	Two pieces of fire-cracked rock
C-4 6W/22S	100 cm	Duff-dark brown, sandy loam over dark yellowish brown, fine sand with less than 10% gravels subrounded to rounded over light olive brown, very compact roots extend down to 85 cm, trace silt and fine sand	One slate decortication flake
C-5 6W/24S	90 cm	Duff-very dark brown, rich loam over dark yellowish brown, moderately compact sandy loam with 5% gravels, roots, sparse charcoal flecking over light olive brown, compact medium sand with less than 5% sand forms small peds, large roots	Two broken metasedimentary flakes, one metasedimentary decortication flake (broken into two pieces)
C-6 6W/26S	90 cm	Duff-very dark brown, rich loam over dark yellowish brown, moderately compact sandy loam with 5% gravels, roots persist, sparse charcoal flecking over light olive brown, compact medium sand with less than 5% sand forms small peds, large roots	One broken metasedimentary flake
D-1 8W/16S	90 cm	Dark brown, sandy loam over dark yellowish brown, fine sand, compact ring of roots around 55 cm over olive brown, loose fine sand	None
D-2 8W/18S	100 cm	Discontinuous band of duff over dark yellowish brown, fine sandy loam with roots and less than 10% pea-sized gravels, rounded gravels, very few rounded gravels over dark yellowish brown, moderately compact sandy loam with less than 5% gravels and roots, sparse charcoal flecking over light olive brown, compact medium sand with less than 5% gravels, sand forming peds (friable), roots	None
D-3 8W/20S	90 cm	Duff-very dark brown, organic lens discontinuous band over dark yellowish brown, fine sandy loam with roots and less than 10% pea-sized gravels, rounded gravels, very few rounded gravels over dark yellowish brown, moderately compact sandy loam with less than 5% gravels and roots, sparse charcoal flecking over light olive brown, compact medium sand with less than 5% gravels, sand forming peds (friable,) roots	Two slate flakes

Shovel Probe #	Depth BGS	Soil Description	Cultural Material Identified
D-4 8W/22S	90 cm	Discontinuous band of duff over very dark brown, organic loam with charcoal from root burn, over dark yellowish brown, fine sandy loam with roots and less than 10% pea-sized gravels, rounded gravels, very few rounded gravels over dark yellowish brown, moderately compact sandy loam with less than 5% gravels and roots, sparse charcoal flecking over light olive brown, compact medium sand with less than 5% gravels, sand forming peds (friable), roots, weathered glacial sediments	One fire-cracked rock
D-5 8W/24S	80 cm	Very dark brown, organic loam with lots of roots over strong brown band of oxidation from root burn, small pieces of charcoal over dark yellowish brown, sandy loam with roots and less than 5% gravels over compact light olive brown, sandy loam with less than 5% gravels, sparse roots	None
D-6 8W/26S	90 cm	Duff-organic loam with abundant roots over dark yellowish brown, sandy loam with roots and less than 5% gravels over olive brown, sandy loam with less than 5% gravels and tree roots	None
E-1 10W/16S	90 cm	Duff-very dark grayish brown, silty loam with sparse charcoal over dark yellowish brown, fine silty sand with less than 10% subrounded to rounded gravels over dark yellowish brown fine silt with less than 10% subrounded to rounded gravels over olive brown, fine sand and less than 10% subrounded to rounded gravels increasingly compact in depth	None
E-2 10W/18S	110 cm	Very dark grayish brown, sandy loam over dark yellowish brown, fine sand with less than 10% gravels over light olive brown, fine sand with less than 5% gravels	One metasedimentary flake
E-3 10W/20S	90 cm	Duff-dark brown, fine silty sand over dark yellowish brown, fine sand with less than 10% subrounded to rounded gravels over olive brown, fine sand with less than 5% subrounded to rounded gravels	None
E-4 10W/22S	100 cm	Very dark brown duff, organic loam, abundant roots over dark yellowish brown sandy loam with less than 10% gravels and some tabular, subrounded pebbles with iron oxide concretions over compact olive brown, sandy loam with less than 5% gravels	One metasedimentary tested cobble
E-5 10W/24s	90 cm	Duff, dark grayish brown over light yellowish brown to dark yellowish brown, sandy loam with less than 10% subrounded to rounded gravels-fine sandy loam to silty loam over light olive brown, fine sand with less than 5% gravels	None
E-6 10W/26S	80 cm	Duff-very dark brown, organic loam, lots of roots over dark yellowish brown, sandy loam with roots, less than 5% gravels over olive brown, compact sandy loam with less than 5% gravels, sparse roots	One piece of slate shatter, one possible slate preform
Judgmental probe-0N/6W	106 cm	Duff over dark yellowish brown, fine silty loam with less than 10% subrounded to rounded gravels over light olive brown, fine silty sand becoming a fine sand with less than 5% subrounded to rounded gravels	None
Judgmental probe 2E/28S	85 cm	Duff over brown, sandy loam with organics, over a compact to very compact olive brown, silty sand with less than 20% subrounded to rounded and tabular pea-sized gravels, sparse pebbles, and tree roots	Three pieces of fire-cracked rock, five slate flakes (four are broken), two metasedimentary flakes, one broken schist flake

Shovel Probe #	Depth BGS	Soil Description	Cultural Material Identified
Judgmental probe 4E/30S	100 cm	Duff-brown organic loam with abundant rootlets and 10% to 15% pea-sized gravels and sparse pebbles over olive brown, compact to very compact sandy loam to silty sand with 15% to 25% pea gravels predominately rounded with some cortical spalls	One metasedimentary tested cobble from the upper 20 cm, one schist flake, and one metasedimentary flake. One feature (F1) with four metamorphic cobbles found at 30 cm BGS to 45 cm BGS.
Judgmental probe- 5E/20S	65 cm	Duff-very dark brown over a very compact light olive brown, sandy loam with less than 5% subrounded gravels	None
Judgmental probe 6E/24S	70 cm	Duff over compact olive brown, silty sand and less than 5% pea-sized gravels and less than 10% gravels at base of shovel probe, becomes a hardpan at 70 cm	None
Judgmental probe 6E/34S	75 cm	Duff-brown with organic loam over compact olive brown, silty sand with 20% subrounded to rounded pea gravels, becomes a hardpan at 75 cm	Two slate flakes
Judgmental probe- 10S/10W	95 cm	Dark brown fine sandy loam with less than 10% subrounded to rounded gravels over a strong brown, fine sand gradating to yellowish brown, compact fine sand with less than 10% subrounded to rounded gravels over light olive brown, very compact fine sand	None
Judgmental probe 28S/13W	118 cm	Dark brown, fine silty loam over dark yellowish brown, very compact fine silty sand over olive brown fine silty sand with less than 10% subrounded to rounded gravels with density decreasing in depth	Two broken slate flakes
Judgmental probe 0W/14S	100 cm	Duff-sandy loam with organics and less than 20% gravels and pebbles over a yellowish brown, compact sandy loam with less than 10% gravels and an irregular lens of charcoal, powdery light gray ash in east wall (most likely root burn) over olive brown compact silty sand with less than 10% gravels	One slate flake fragment, one metasedimentary utilized flake, one metasedimentary complete flake
Judgmental probe- 0W/16S	90 cm	Duff over a dark brown, fine silty loam over a dark yellowish brown sand with less than 10% subrounded to rounded gravels becoming a fine sand with depth	One slate flake
Judgmental probe 0W/18S	105 cm	Duff-dark brown organics with large fragments of bark over olive brown, compact silty sand with less than 15% gravels and sparse pebbles	One metasedimentary flake in upper 50 cm
Judgmental probe- 0W/20S	100 cm	Duff-very dark brown over dark yellowish brown, compact fine sandy loam with less than 5% gravels and sparse charcoal with a lens of strong brown oxidized sediment from root burn over a compact olive brown, medium sand with less than 5% gravels	One metasedimentary perform
Judgmental probe- 2W/6S	100 cm	Dark yellowish brown, loose fine sandy loam with abundant rootlets and less than 10% subrounded gravels over a compact olive brown, medium sand with less than 5% gravels	None

Shovel Probe #	Depth BGS	Soil Description	Cultural Material Identified
Judgmental probe-2W/38S	70 cm	Duff-very dark brown over a dark yellowish brown, compact sandy loam with friable reddish brown iron oxide pellets and less than 5% gravels over a light olive brown, compact sandy loam to sand and less than 5% gravels	None
Judgmental probe-6W/32S	80 cm	Duff over a dark brown, fine silty loam over a dark yellowish brown, fine silty loam with abundant roots all the way down	None
Judgmental probe-10W/32S	120 cm	Duff over dark brown, sandy loam with abundant rootlets over dark yellowish brown, moderately compact fine sandy loam and less than 5% gravels over a very compact olive brown, sandy loam to sand with less than 5% gravels	None
Judgmental probe 10W/14S	90 cm	Duff with organics and fine sandy loam over dark yellowish brown, moderately compact sandy loam and less than 5% gravels over a very compact olive brown, silty sand with less than 5% gravels with gravel density decreasing with depth	None
Judgmental probe 0W/22S	90 cm	Duff-dark brown loam with 15% gravels over yellowish brown, compact sandy loam with up to 15% gravels over olive brown fine sand with up to 15% gravels	None
Judgmental probe 0W/32S	65 cm	Duff over a dark brown loam with abundant roots over olive brown, fine sand with 15% gravels	One cryptocrystalline flake between 30 cm and 40 cm, found in screen
Judgmental probe 2W/12S	90 cm	Duff with organic-rich loam with charcoal flakes and 45% subrounded to rounded pea gravels over a dark yellowish brown, moderately compact fine sandy loam with less than 5% gravels over olive brown compact fine silty sand with less than 5% gravels	One schist flake, one broken slate flake

Cultural material was encountered in 27 shovel probes, and the prehistoric lithic scatter at 45KI757 consists of three small pebble cores; one thin tabular schist knife; one slate preform; one metasedimentary preform; eight fire-cracked rock isolates and one fire-cracked rock feature of four cobbles (Feature 1); and assorted slate, metasedimentary, schist, and cryptocrystalline silicate (CCS) debitage. In addition, one large, tabular metasedimentary manuport, which is an unmodified natural rock brought onto a site by a person but shows no sign of battering or cultural modification, was found within a tree root wad (Exhibit 24). It may have been used as an anvil stone for bone breakage or bipolar reduction for stone tool production. Detailed descriptions of artifacts appear in the Archaeological Site Inventory Form in Appendix D.

Twelve pieces of subangular to angular, metamorphic fire-cracked rock, altogether weighing 8.57 kilograms, were recovered from the following test probes: three fire-cracked rocks weighing 64.35 grams from 2E/28S; 2 fire-cracked rocks weighing 18.60 grams from C3; one fire-cracked rock weighing 71.72 grams from D4; two fire-cracked rocks weighing 2.96 kilograms from 6W/32S; and four fire-cracked rocks weighing 4.06 kilograms from Feature 1 in 4E/30S. Several specimens exhibit reddening from exposure to fire, and some exhibit cracking and crenated edges characteristic of repeated exposure to high temperatures.

The total count of 44 lithic flakes, or debitage, were recovered, including 24 pieces of slate, 14 pieces of metasedimentary rock, 4 fragments of schist, and 2 CCS flakes. Twenty (45 percent) of the flakes are complete specimens, 20 (45 percent) exhibit one broken margin, two (5 percent) exhibit more than one broken margin, and two (5 percent) represent shatter.

The lithics were sorted with sieves in the following size classes: 1 inch, 0.5 inch, 0.25 inch, 0.125 inch. A total of 22 (50 percent) fall within the 1-inch size class or above, although most of the specimens cluster at 1-inch; 20 (45 percent) at 0.5-inch, and two (5 percent) at 0.25-inch. Half of the lithic debitage exhibited cortex, the exterior surface, and the remainder did not. Fifteen (68 percent) of the 22 flakes exhibiting cortex fell within the 1-inch size category.

The size and presence of cortex on the lithic debitage suggests a combination of early- to middle-stage tool reduction, possibly representing expedient tool production with the smaller specimens, such as the CCS flakes, representing late-stage reduction suggestive of tool refinement and/or rejuvenation.

There was an artifact concentration in the northern half of the excavation grid, with a smaller and more diffuse cluster of artifacts in five shovel probes in the southeast corner of the site. Artifacts tended to be relatively deeply buried, suggesting great antiquity for the site's occupation. The majority of artifacts were recovered from Stratum II. Those artifacts recovered in situ, such as the two tested pebbles and schist knife, were found near the contact between Stratum II and Stratum III. Also, several fire-cracked rocks, a fire-cracked feature (Feature 1), and artifacts in the easternmost shovel probes on the crest of the hill in the vicinity of the right-of-way fence were recovered along the indistinct boundary of Stratum II and Stratum III. Ancient tree throws also may account for some vertical displacement of artifacts downward into the upper portion of Stratum III. Tree roots also may have pushed artifacts deeper into the sediment profile from their original positions. Some of the artifacts may have been displaced from positions higher in the stratigraphic profile during the course of shovel excavations.

Another indication of great antiquity of the artifacts and site occupation is the presence of iron oxide concretions adhering to the cortex and flake scars of some of the artifacts. Although no evidence of a seasonal water table in the form of iron oxide mottling was observed in the shovel probe profiles, and the stratigraphy onsite is well-drained, the concretions may be attributable to iron translocation through the agency of rainwater percolating downward in the soil profile and leaving behind incremental, trace concentrations of iron precipitate on the surfaces of the flaked stone.

The pebble cores and formed tools, as well as the flaked slate, metasedimentary, and schist debitage from the site, are similar to artifacts in early Holocene sites of the Pebble Tool Tradition. The site assemblage is quite similar to ones from the Glenrose Cannery, Milliken, and South Yale sites along the Fraser River in British Columbia. These sites represent an early prehistoric riverine and coastal adaptation with toolkits dominated by simple, flaked pebbles and simple, multipurpose tools that seldom exhibit fine flaking on more than one surface of an artifact (Borden 1968; Carlson 1990; Carlson and Dalla Bona 1996). The Pebble Tool Tradition may represent an initial coastal settlement by prehistoric peoples who then followed rivers into the interior uplands. The Pebble Tool Tradition may have given rise to the Olcott tradition in

Puget Sound (Carlson 1990). The types of artifacts found at 45KI757, together with their location in an interior upland setting, suggests the site functioned as a temporary camp sometime during the early to middle Holocene.

Early Holocene sites, particularly those associated with the Pebble Tool Tradition, are rare in western Washington. Therefore, this site is eligible for listing in the NRHP under Criterion D.

*Exhibit 24: Site 45KI757, Locus VII, artifact descriptions and stratum association*

<b>Shovel Probe #</b>	<b>Artifact Description</b>	<b>Depth BGS</b>	<b>Associated Stratum</b>
SP 33	One metasedimentary tested cobble, one schist knife	24 cm	Stratum II
A1-2W/16S	One piece of slate shatter, two slate flakes, one schist flake	54-70 cm	Stratum II
A3-2W/20S	Two slate flake fragments	63 cm and 80 cm	Stratum II
A6-2W/26S	One slate flake (broken)	40 cm	Stratum II
B1-4W/16S	One cryptocrystalline flake	20 cm	Stratum II
B3-4W/20S	Three metasedimentary flakes	20-40 cm	Stratum II
C2-6W/18S	Two slate flakes (broken)	10-25 cm	Stratum II
C3-6W/20S	Two pieces of fire-cracked rock	20-45 cm	Stratum II
C4-6W/22S	One slate decortication flake	20-40 cm	Stratum II
C5-6W/24S	Two metasedimentary flakes (broken), one metasedimentary decortication flake (broken into two pieces)	Upper 40 cm	Stratum II
C6-6W/26S	One metasedimentary flake (broken)	20 cm	Stratum II
D3-8W/20S	Two slate flakes	15-40 cm	Stratum II
D4-8W-22S	One fire-cracked rock	10-15 cm	Stratum I
E2-10W/20S	One metasedimentary flake	20-50 cm	Stratum II
E4-10W/22S	One metasedimentary tested cobble	Upper 20 cm	Stratum II
E6-10W/26S	One piece of slate shatter and one possible slate preform	40 cm	Stratum II
28S/13W	Two slate flakes (broken)	20-30 cm	Stratum II
0W/14S	One slate flake fragment, one metasedimentary utilized flake, one metasedimentary complete flake	Upper 20 cm and upper 50 cm	Stratum I-II
0W/16S	One slate flake	50-60 cm	Stratum II
0W/18S	One metasedimentary flake	50 cm	Stratum III
0W/20S	One metasedimentary preform	40 cm	Stratum II
0W/32S	One cryptocrystalline flake (broken)	30-40 cm	Stratum II
6W/32S	Two pieces fire-cracked rock	60-70 cm	Stratum II
2E/12S	One schist flake, one slate flake (broken)	37 cm and upper 50 cm	Stratum II-III
2E/28S	Three pieces of fire-cracked rock, five slate flakes (four broken), two metasedimentary flakes, one schist flake (broken)	Upper 60 cm	Stratum III

Shovel Probe #	Artifact Description	Depth BGS	Associated Stratum
4E/30S	Four pieces of fire-cracked rock found in Feature 1, one metasedimentary flake, one schist flake, one metasedimentary tested cobble	Upper 45 cm	Stratum III
6E/34S	Two slate fragments (broken)	Upper 50 cm	Stratum III
Tree root wad	Tabular angular manuport	30-40 cm	Unknown

### ***Proposed pond location at MP 23.7 to 23.8 (Locus VIII)***

Locus VIII is location of a proposed pond in the cloverleaf median between MPs 23.7 to 23.8 (Exhibit 8, sheet 7; Exhibit 25). An overview of the survey area appears in Appendix E, Exhibit 5, Photograph 9. Nine shovel probes were excavated, three probes within three transects. Each shovel probe transect was 10 meters apart and each shovel probe within a transect was approximately 10 meters apart. Shovel probes were terminated once the excavation filled with water, usually at a depth of 15 to 30 centimeters. Observed sediment included a very dark grayish brown, clayey silty loam horizon over very compacted, gravelly grayish brown clay horizon with a matrix of up to 60 percent gravels and pebbles (Exhibit 26). The gravel content and extreme compactness of the sediment is incongruous with the alluvial setting of the locus given its location in the Sammamish River floodplain. These characteristics, in combination with the area's artificial topography (highway ramps), indicate that the sediment is imported fill. After consultation with WSDOT, it was determined that further investigation was necessary to determine the depth of the fill and nature of the native underlying stratigraphy due to the proposed 6-foot depth of the pond feature, and the higher likelihood for encountering deeply buried material in the Sammamish River floodplain.

On March 6, 2007, four backhoe trenches were placed within the footprint of the proposed pond location and ranged in depth from 1.8 to 2 meters BGS. The observed sediments in Trenches 1 and 2 were a very dark grayish brown, saturated gravelly clayey silt in the upper 20 centimeters over a very compacted, dark greenish gray to olive brown, gravelly sandy clay with rounded cobbles (up to 20 centimeters long) down to a depth of 1.75 meters (approximately 6 feet BGS). The results of backhoe monitoring corroborated the preliminary identification of fill given the great contrast in constituent particle sizes and sediment content, which is incongruent with a floodplain setting. A decomposing vegetal mat was also identified at the base of the fill and consisted of riparian vegetation or former cultivated crops over a dark grayish brown, fine clayey silt loam with roots and decomposing wood debris. This stratum graded down to a horizon of dark gray, medium silty sand with intercalated lenses (1 to 2 centimeters thick) of very dark grayish brown, organic-rich clayey silt. The vegetal mat and underlying clayey silt are interpreted as representing the former ground surface and river alluvium. The fill encountered in the locus is most likely associated with original highway construction.

The sediment profile for Trench 3 was similar to the profiles of Trenches 1 and 2, and exhibited olive brown fill overlying gray fill; the original surface was encountered at approximately 6 feet BGS. Trench 4 exhibited a profile of gray fill over olive brown fill over the original surface

horizon, which was encountered at 1.7 meters BGS. Although native surfaces were encountered, no cultural material was observed during the backhoe monitoring.

Exhibit 25: Locus VIII shovel probes

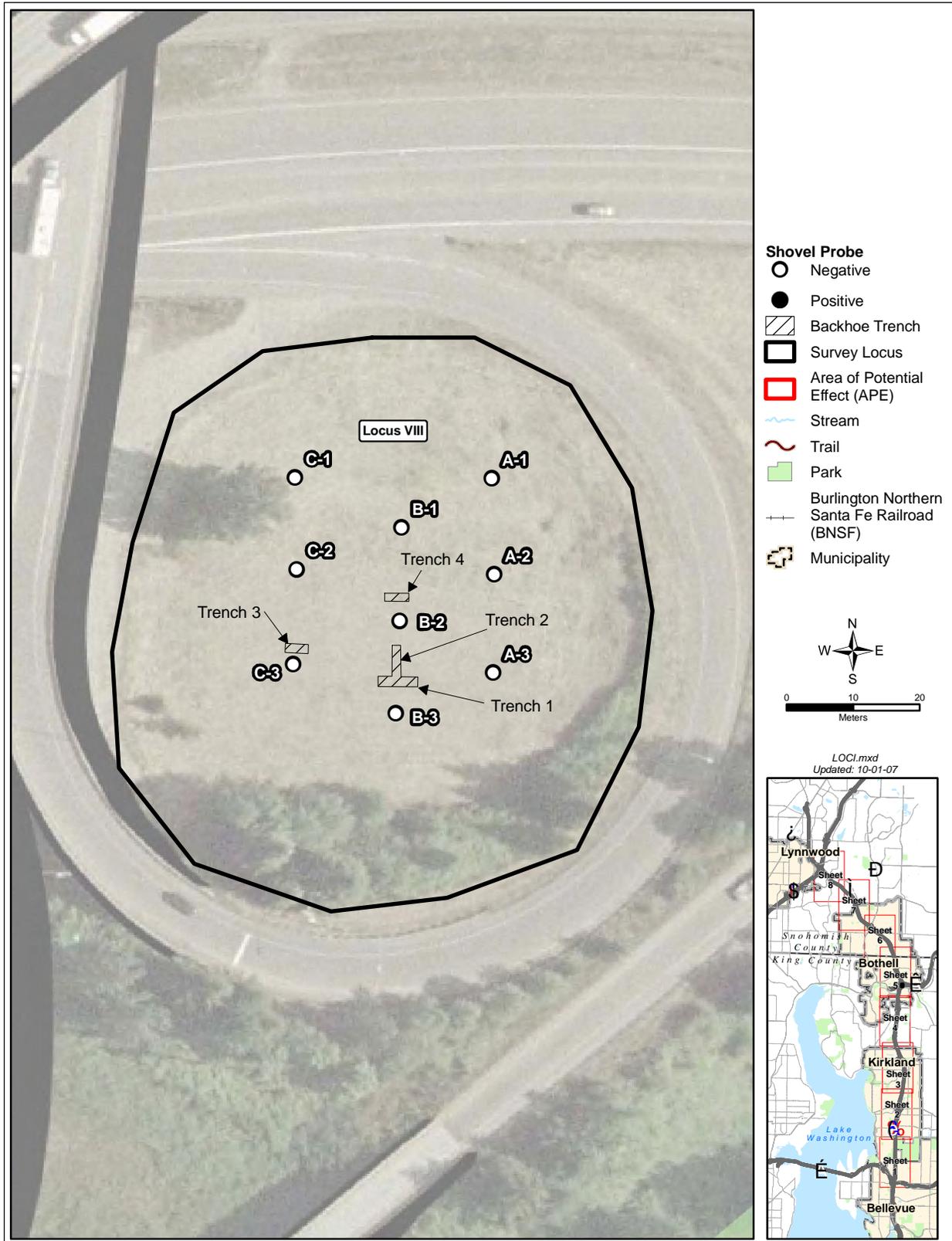


Exhibit 26: Locus VIII shovel probe results

Shovel Probe #	Depth (BGS)	Soil Description	Cultural Material Identified
A-1	30 cm	Very dark grayish brown clayey silt over compact grayish brown clay with up to 50% subrounded to rounded gravels	None
A-2	19 cm	Very dark grayish brown, clayey silt over compact grayish brown clay with up to 50% subrounded to rounded gravels	None
A-3	17 cm	Very dark grayish brown, clayey silt over compact grayish brown clay with up to 50% subrounded to rounded gravels	None
B-1	30 cm	Very dark grayish brown, clayey silt over compact grayish brown clay with up to 50% subrounded to rounded gravels	None
B-2	25 cm	Very dark grayish brown, clayey silt over compact grayish brown clay with up to 50% subrounded to rounded gravels	None
B-3	25 cm	Very dark grayish brown, clayey silt over compact grayish brown clay with up to 50% subrounded to rounded gravels	None
C-1	22 cm	Very dark grayish brown, clayey silt over compact grayish brown clay with up to 60% rounded gravels	None
C-2	15 cm	Very dark grayish brown, clayey silt over compact grayish brown clay with 60% rounded gravels	None
C-3	15 cm	Very dark grayish brown clayey silt over compact grayish brown clay with 60% rounded gravels	None
Trench 1	175 cm	An upper 20-cm-thick horizon of very dark grayish brown, saturated gravelly clayey silt over a very compacted, dark greenish gray to olive brown, gravelly sandy clay with rounded cobbles overlying a decomposing vegetal mat, which could be either riparian vegetation or former cultivated crops over a dark grayish brown, fine clayey silt loam with root and decomposing wood debris. This stratum graded down to a horizon of dark gray, medium silty sand with intercalated lenses (1 to 2 centimeters thick) of very dark grayish brown, organic rich clayey silt. These lower horizons represent original ground surface and alluvial overbank deposits	None
Trench 2	213 cm	An upper 20-cm-thick horizon of very dark grayish brown, saturated gravelly clayey silt over a very compacted, dark greenish gray to olive brown, gravelly sandy clay with rounded cobbles overlying a decomposing vegetal mat, which could be either riparian vegetation or former cultivated crops over a dark grayish brown, fine clayey silt loam with root and decomposing wood debris. This stratum graded down to a horizon of dark gray, medium silty sand with intercalated lenses (1 to 2 cm thick) of very dark grayish brown, organic-rich clayey silt. These lower horizons represent original ground surface and alluvial overbank deposits	None
Trench 3	213 cm	The sediment profile for Trench 3 was similar to the profiles of Trench 1 and 2, and exhibited olive brown fill overlying gray fill; the original surface was encountered at approximately 1.7 meters (6 feet) BGS	None
Trench 4	213 cm	Trench 4 exhibited a profile similar to Trench 1 and 2, with gray fill overlying olive brown fill overlying the original surface horizon, which was encountered at 1.65 meters (5.5 feet) BGS	None

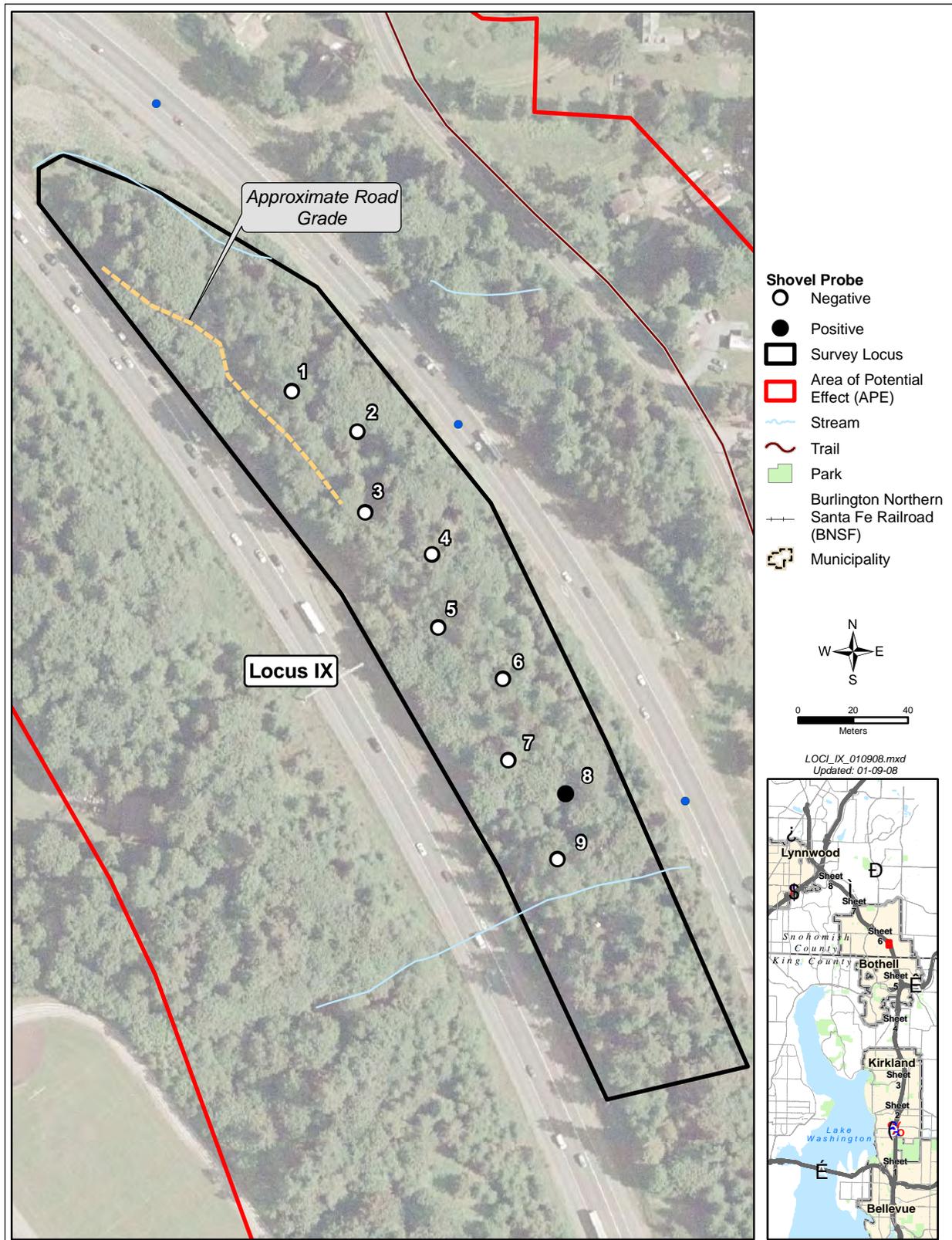
## ***Proposed pond and sound retaining wall location at MP 25.3 to 25.7 (Locus IX)***

Locus IX is the location of a proposed pond and sound/retaining wall in a forested area between MP 25.3 to MP 25.7 in the median between northbound and southbound I-405 (Exhibit 8, sheet 8; Exhibit 27). Although Locus IX is bisected by an ephemeral drainage, the area was identified as an area of moderate probability because its proximity to seasonal water is negated by the area's relatively steep and uneven topography. A view of the survey area appears in Appendix E, Exhibit 5, Photograph 10.

Nine shovel probes were placed in this location approximately 20 meters apart due to the area's steep and uneven topography. The observed sediments included a variegated dark brown to dark grayish brown, sandy loam with 15 to 30 percent gravels and cobbles over a dark yellowish brown, compacted fine sandy loam with 20 to 30 percent subangular to subrounded gravels and cobbles over a light olive brown, sandy loam with up to 50 percent gravels that increasingly became more compact to hardpan (Exhibit 28). The soils in Locus IX are Alderwood gravelly sandy loams (Debose and Klungland 1983). The sediments consist of colluvium exhibiting soil horizonation typical for a forested zone and represent an upper organic horizon derived from slow accumulation of forest duff overlying a variegated yellowish brown illuvial horizon, overlying an upper contact of decomposing glacial sediments as represented by olive colored sediment. The absence of the uppermost dark grayish brown to dark brown stratigraphic horizon in some of the shovel probes suggests differential erosion probably attributable to rain and periods of sheet wash.

One piece of clear glass was observed in shovel probe 8 and was determined to be modern. In addition to the clear glass fragment, a road grade was identified (NBA-003) and recorded as a site. Site NBA-003 lacks any features indicating that it is an early historical transportation route. In addition, no historic artifacts or other features are associated with this site. The road grade is approximately 10 feet wide and 150 feet long and contours Beckstrom Hill running north to south. One piece of transparent aqua vessel glass was found in a shovel probe adjacent and to the east of the road at 27 centimeters BGS. A discernible road cut is evident on the west margin of the feature on the uphill side, but the eastern margin is less well defined. Deciduous trees and ferns grow out of the grade in many places along the extant bed. Other decomposed trees have collapsed across the feature in places. The feature terminates in a wide, level, rounded area measuring approximately 30 feet by 30 feet and approximately 15 feet north of a steeply incised east-flowing intermittent drainage. A modern kitchen stove was also observed adjacent to the road grade. A review of an 1874 General Land Office Map and Metsker Maps did not yield evidence of this road grade. Since construction schematics for I-405 were not available for review, the road's association with highway construction is unknown. The diameter of some of the trees growing out of the road grade suggests it is older than 50 years. Regardless, the resource is determined to be not eligible for the NRHP.

Exhibit 27: Locus IX shovel probes



*Exhibit 28: Locus IX shovel probe results*

<b>Shovel Probe #</b>	<b>Depth (BGS)</b>	<b>Soil Description</b>	<b>Cultural Material Identified</b>
1	70 cm	Duff with organics over dark brown silt with 5% roots over mottled gray and yellowish brown, fine silty clay with gravels	None
2	100 cm	Duff with organics over dark brown, silty loam with 15% subrounded to subangular gravels over a yellowish brown, silty sand with 30% subrounded to subangular gravels over a light olive brown, medium sand with 1% subrounded to subangular gravels	None
3	90 cm	Duff with abundant organics over yellowish brown, compact fine sandy loam with organics and 20% to 30% subangular to rounded gravels over light olive brown, sandy loam with 40% to 50% gravels and cobbles over a hardpan till	None
4	70 cm	Duff with organics over a light yellowish brown to yellowish brown, gravelly silt over a yellowish brown mottle with olive gray, fine silt and clay and iron oxide	None
5	100 cm	Duff with organics over a yellowish brown, silt loam with 30% to 40% subrounded to subangular gravels and cobbles becoming a fine sand and gravels increasing to 60% subrounded to subangular over a very compact yellowish brown, medium sand with 60% subrounded to subangular gravels and cobbles	None
6	100 cm	Duff with organics over a dark brown, sandy loam with 20% to 30% subrounded to subangular gravels over a dark yellowish brown, sandy loam with 40% to 50% subrounded to subangular gravels and cobbles	None
7	65 cm	Duff with organics over a yellowish brown, fine sand with 15% gravels over a yellowish brown, medium fine sand with 20% gravels and small cobbles terminated due to root obstruction	None
8	43 cm	Duff with organics over a very dark grayish brown, sandy silty loam over a very dark brown, sandy loam with less than 30% to 40% subangular to rounded gravel	Once piece of flat glass
9	100 cm	Duff with organics over a very dark grayish brown, silty loam with 15% subrounded to subangular gravels over a yellowish brown, silty sand with 15% to 20% subrounded to subangular gravels over a light olive brown, medium sand with 20% subrounded to subangular gravels	None

### ***Historic buildings and structures inventory***

Thirteen historic period resources built in 1965 or earlier were identified within the APE, and were recorded on the Washington State Historic Property Inventory database. The 13 resources are located in either residential or mixed business-residential settings (Exhibit 29). Only one property, the Hosmer/Fries residence (NBH-013) at 20115 112th Avenue NE, Bothell, appears to be eligible for listing in the NRHP (Exhibit 8, sheet 7; see also the Historic Property Inventory Form in Appendix C). The Hosmer/Fries residence is a one-and-a-half story Craftsman house that was built in 1910 (Exhibit 30). The house has a side gable roof clad in composition shingles and rests on a poured concrete foundation. It was previously recorded in 1977 for the King County Historic Sites Survey. The property was originally a part of John M. Keener's 40 acres. In 1910, Howard Hosmer constructed the house. In 1922, the Fries family purchased the house and in 1977, George Fries was still living in the house (Foster 1977). The Fries residence

occupies its original location and the house is eligible under Criterion C based on the integrity of its design and materials. It also retains classic Craftsman architectural features, including multiple ribbon windows, open porches leading from the main living areas, and horizontal massing.

Physical descriptions, statements of significance, historic contexts, and photographs of the remaining historic buildings and structures within the APE are provided on the Historic Property Inventory forms in Appendix C.

*Exhibit 29: Historical buildings identified within the area of potential effects and the National Register of Historic Places eligibility*

<b>Field Number</b>	<b>Address</b>	<b>Date Built</b>	<b>Common Name</b>	<b>Historic Name</b>	<b>Meets NRHP Criteria</b>
NBH-002	11616 NE 132nd St., Kirkland	1959	Pinkley Residence	Blackman Property	No
NBH-003	13605 115th Ave. E, Kirkland	1965	Verme Residence	Cobb Property	No
NBH-004	13605 115th Ave. NE, Kirkland	1965	Xue Residence	Donogh Homes, Inc.	No
NBH-005	113619 115th Ave. NE, Kirkland	1965	Lizarrage-Garcia Residence	Donogh Homes, Inc.	No
NBH-006	13817 115th Ave. NE, Kirkland	1965	Manalo Residence	Berger Residence	No
NBH-007	13839 115th Ave. NE, Kirkland	1965	Kauffman Residence	Nygaard Residence	No
NBH-008	13851 115th Ave. NE, Kirkland	1965	Tova Residence	Matson Residence	No
NBH-009	11501 NE 140th St., Kirkland	1965	Farr Residence	Molina Residence	No
NBH-011	19509 112th Ave. NE, Bothell	1936	Bean Residence	Haney Residence	No
NBH-012	20329 112th Ave. NE, Bothell	1918	Holman Property	Boe Residence	No
NBH-013	20115 112th Ave. NE, Bothell	1910	Hosmer/Fries Residence	Hosmer/Fries Residence	Yes, C
NBH-014	3300 Monte Villa Parkway, Bothell	1927	The Monte Villa Farmhouse Event Facility	Monte Villa Farmhouse and Dairy	No
NBH-016	23505 27th Ave. SE, Bothell	1956	Foster Residence	23505 27th Ave. SE Residence	No

\* Resources NBH-001, -010, and -015 were found to have been moved or demolished.

*Exhibit 30: Hosmer/Fries residence (NBH-013)*



## Potential Effects

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This cultural resource assessment identified 16 cultural resources in the project APE: 13 historical structures (Exhibit 29), and 3 archaeological sites (45KI756, 45KI757, NBA-003). Of these resources, only two are recommended eligible for listing in the NRHP: historic building NBH-013 (the Hosmer/Fries residence) and archaeological site 45KI757. The Hosmer/Fries residence retains distinctive Craftsman architectural features such as multiple ribbon windows, open porches leading from the main living areas, and horizontal massing, while retaining integrity of setting, location, workmanship, and design. Therefore, it is eligible for inclusion in the NRHP under Criterion C. The remaining 12 historic resources within the APE are not eligible for inclusion in the NRHP because they lack integrity and/or are not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A), are not associated with the lives of persons significant in our past (Criterion B), or do not embody distinctive architectural characteristics or represent the work of a master (Criterion C).

The types of artifacts found at site 45KI757, together with their location in an interior, upland setting, suggest the possibility of an early to middle Holocene temporary camp. Early Holocene sites, particularly those associated with the Pebble Tool Tradition, are rare in western Washington; therefore, this site is eligible for listing in the NRHP under Criterion D.

Sites 45KI756 and NBA-003 are determined to be not eligible for the NRHP. Site 45KI756 yielded only three prehistoric artifacts in a disturbed stratigraphic context in association with modern and historical debris. The site lacks physical integrity and integrity of location and association. Site NBA-003 is a road grade that lacks any features to indicate it is an early historical transportation route. In addition, no historic artifacts or other features were found associated with it. In conclusion, neither of these sites appears to have the potential to yield further information. Thus, they are not eligible for listing on the NRHP.

This section describes direct and indirect effects of the proposed road improvements on two eligible cultural resources within the SR 520 to I-5 Improvement Project APE. Direct effects are those that will result in destruction or removal of a historic property. Ground disturbance from construction activities will affect archaeological resources. Indirect effects will be caused by development located near a cultural resource that does not directly disturb the site, but changes the setting of the area or offers increased opportunities for human disturbance. Indirect effects could include increased traffic congestion, noise or vibration that may affect a historic property's stability, and visual alterations of a historic property's setting.

### **Construction**

#### **Direct**

The proposed construction of Build Alternatives 1 and 2 will directly affect archaeological site 45KI757. Both alternatives propose construction of a large retaining wall on the northbound right-of-way line that will result in the removal of the site area within the existing right-of-way, an adverse effect.

The proposed construction under Build Alternative 1 or 2 will not directly affect the Hosmer/Fries residence (NBH-013). The property is situated on the west side of I-405 north of NE 195th Street and the proposed construction of southbound enforcement lanes in this area will not physically affect the building.

### **Indirect**

There will be no indirect effects to the Hosmer/Fries residence (NBH-013) or archaeological site 45KI757 from construction under Build Alternative 1 or 2.

### **Operation**

#### **Direct**

There will be no direct operational impact under Build Alternative 1 or 2 to the Hosmer/Fries residence (NBH-013) or archaeological site 45KI757.

#### **Indirect**

The proposed operation of Build Alternative 1 or 2 will indirectly affect the Hosmer/Fries residence (NBH-013), but the effects will not be adverse. The property is situated on the west side of I-405 north of NE 195th Street and the proposed construction of southbound enforcement lanes in this area could introduce a change in the visual setting through the closer proximity of I-405 to the building. However, the Hosmer/Fries residence is eligible under Criterion C for its Craftsman-style architecture, not its setting. Further, it is presently located adjacent to I-405. The increased proximity of I-405 will not affect the characteristics that warrant the building's inclusion in the NRHP, nor is the increased proximity of I-405 likely to notably increase vibration impacts on the building. Therefore, the indirect effect will not be adverse.

There will be no indirect effects to archaeological site 45KI757 from construction.

### **No Build Alternative**

Because no construction is proposed under the No Build Alternative, there would be no effect on historic properties associated with this alternative.

## Measures to Avoid or Minimize Effects

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There are currently no effects to historic properties that can be avoided or minimized.

The SR 520 to I-5 Improvement Project will include two stormwater discharge features into the Sammamish River, one on the north side and the other on the south side. The designs of the discharge sites has not been finalized and additional archaeological fieldwork may be necessary to satisfy Section 106 requirements once precise locations are established. The additional fieldwork will be conducted under the I-405 Corridor Programmatic Agreement (Appendix F).

### ***Unavoidable adverse effects***

The proposed improvements associated with Build Alternative 1 and 2 will result in unavoidable adverse effects to one archaeological site: 45KI757. This site will be partially removed by construction activities. A mitigation plan should be developed as a Memorandum of Agreement (MOA) that includes data recovery of archaeological materials within the I-405 right-of-way area along with any other agreed upon stipulations.

Prior to construction, an unanticipated discovery plan (UDP) will be developed that will describe the procedures to be followed if archaeological materials or human remains are discovered during construction.



## References

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### **GIS data sources**

#### **Exhibits 1 and 2**

WSDOT

2006 I-405 Congestion Relief and Bus Rapid Transit Projects. September.

#### **Exhibit 3**

USGS

nd Digital Raster Graphs (DRG). K47122f1, o47122g2, o47122g3.

#### **Exhibits 8-9, 11, 13, 15, 19, 21, 25, and 27**

WSDOT

1997 Spatial Data Catalog, 1997, Railroads.

2001 Aerial photography program. March.

2006 Spatial Data Catalog, Water.

2006–7 I-405 Staff; Parks. Merged data from King and Snohomish counties standard data and cities of Bellevue, Kirkland and Bothell standard data

2006–7 I-405 Staff, Streams.

2006–7 I-405 Staff, Tenth Mile Posts.

2005 I-405 Kirkland Nickel Improvement Project, SR520 to I-5. Prepared by I-405 Staff and Entranco, Inc. Area of Potential Effects.

Landau Associates

2007 Data export of historic properties from King County 2006-2007 Parcels and Snohomish County 2006 Parcels combined and attributed with HSN#.

2007 Survey Locus. Digitized data based on field notes.

2007 Archaeological Sites. Digitized based on field notes.

2007 Area of Potential Effects.

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