3.3 Cultural Resources

This section of the Draft EIS describes the existing cultural resources conditions on the SPU campus and evaluates the potential impacts from the ***Draft MIMP*** and EIS alternatives. This section is based on a *Cultural Resources Discipline Report* (Perteet, 2022, on-file with City of Seattle).

Policy Context

The Seattle Municipal Code (SMC) contains specific provisions that describe the scope of the SEPA analysis for sites with potential archaeological significance. Relevant policies from SMC 25.05.675 are provided below:

H.2. e. Historic Preservation

> *On sites with potential archaeological significance, the decisionmaker may require an assessment of the archaeological potential of the site. Subject to the criteria of the overview policy set forth in Section 25.05.665, mitigating measures that may be required to mitigate adverse impacts to an archaeological site include, but are not limited to:*
>
> *1) Relocation of the project on the site;*
>
> *2) Providing markers, plaques, or recognition of discovery;*
>
> *3) Imposing a delay of as much as 90 days (or more than 90 days for extraordinary circumstances) to allow archaeological artifacts and information to be analyzed; and*
>
> *4) Excavation and recovery of artifacts.*

This Historic Preservation policy is clarified by SDCI Director's Rule 2-1998 (DR 2-98), which describes how the policy is applied to sites and when and how an assessment of archaeological resources should be considered.

Regulatory Context

In additional to City of Seattle policies, several Washington state laws address archaeological sites and Native American burials. The Archaeological Sites and Resources Act (RCW 27.53) prohibits knowingly excavating or disturbing prehistoric and historic archaeological sites on public or private land. The Indian Graves and Records Act (RCW 27.44) prohibits knowingly destroying American Indian graves. In the event of inadvertent disturbance through construction or other activities, human remains and artifacts from American Indian graves must be re-interred under supervision of the appropriate Indian Tribe. Additionally, RCW 42.56.300 exempts all records, maps, or other information identifying the location of archaeological sites, historic sites, artifacts, or sites of traditional, ceremonial, or social uses and activities of Indian Tribes from disclosure in order to prevent the looting or depredation of sites.

3.3-1 Existing Conditions

Natural Environment

Geology and Geomorphology

The SPU campus lies in the Puget Lowland, an elongated trough and structural depression oriented on a north-south axis and bordered by the Cascade Mountains in the east and the Olympic Mountains in the west. The overall topography and surficial geology of the Puget Lowland was primarily shaped by multiple southward advances of continental glaciations during the Pleistocene epoch (1.8 million to 10,000 years ago).

The modern Puget Lowland is characterized by undulating uplands that are interrupted by large ice-carved troughs. The largest troughs are now occupied by the marine waters of the Puget Sound and freshwater lakes, including Lake Washington and Lake Sammamish. Hills in the project vicinity contain Vashon glacial sediments, such as till deposited directly by ice, outwash deposited by meltwater, glaciolacustrine sediment deposited in former lakes, and undifferentiated ice contact drift. Older glacial and interglacial deposits are also present below the Vashon sediment. Glacial deposits compose Fremont, Queen Anne, and Capitol Hill, and Lake Union is within a basin that lies between these hills. Holocene-aged lacustrine sediments are also present along the shoreline of Lake Union and may also remain within or near the proposed MIO boundary.

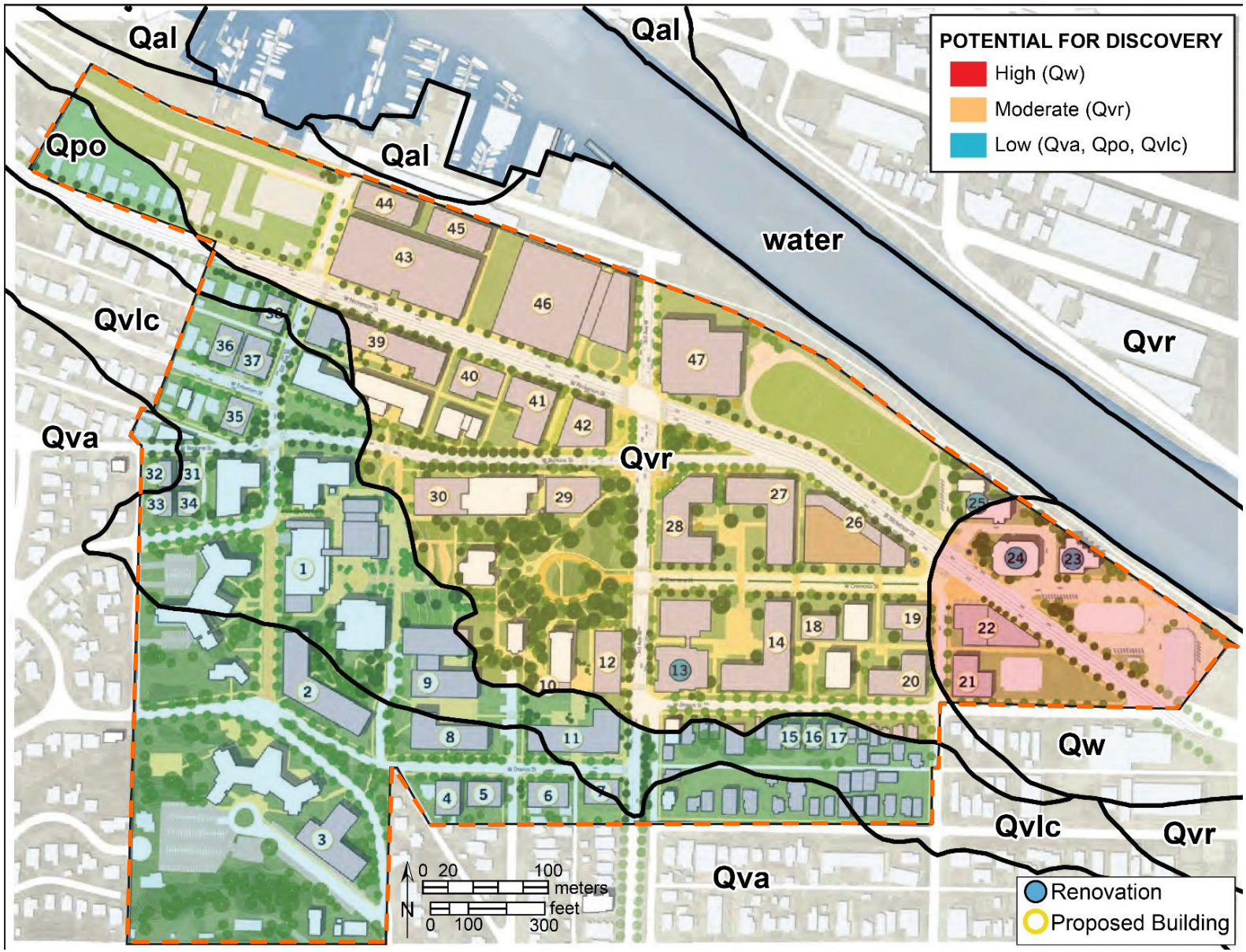
The proposed SPU MIO boundary spans two landforms: the lower portion of the northern slope of Queen Anne Hill and a narrow, relatively flat lowland area between Queen Anne Hill and the Lake Washington Ship Canal, both of which have been modified in the post-contact period. For example, Queen Anne Hill formed as a glacial drumlin with a steep northern slope and a more gradual southern slope - slope modifications to Queen Anne Hill have altered the topography of much of the northern slope with construction of retaining walls, as well as cutting and filling to create buildable development lots.

Sediment and Soils

Soils of the SPU campus are mapped as urban land-Alderwood complex with slopes ranging from 0% to 35%. In an urban land context these soils may be overlain by fill or soil profiles may be truncated from previous cuts. Five surface geology units are mapped in the proposed MIO boundary area including three glacial units, one interglacial unit, and one Holocene unit (see **Figure 3.3-1**).

Flora and Fauna

At present, the SPU campus is in an urban setting, but in the pre-contact and early post-contact periods the native vegetation in the Seattle area was typically western hemlock forest, which is dominated by coniferous Douglas-fir, western hemlock, and western red cedar. Deciduous trees, predominantly alder and big-leaf maples, are also common, especially in disturbed situations. Forest understory communities follow a moisture gradient and forests generally consist of dense shrubs and herbaceous plants, including sword fern, bracken fern, salal, Oregon grape, oceanspray, blackberry, red huckleberry, and red elderberry. At the end of the nineteenth century,



Source: Perteet, 2021

EA Engineering, Science, and Technology, Inc., PBC

Figure 3.3-1

Potential for Archaeological Discovery

the once densely forested environment was rapidly transformed when the lowlands and the hills above Lake Union were logged.

Wildlife provided a significant source of food, hide, and bone for Seattle's Native people and would also have been important to early settlers in the area. Elk, black-tailed deer, bear, and mountain lion, and smaller animals, such as rabbit, raccoon, red fox, porcupine, squirrel, coyote, weasel, and river otter were all found in western Washington. Prior to urban development, Queen Anne Hill was known as a good bear hunting location. Marshes and wetlands provided habitat for beaver and muskrats and a migration corridor for ducks, geese, and other waterfowl. Fish and shellfish were particularly important to Native Americans in the Pacific Northwest who relied on Chinook, coho, and sockeye salmon, as well as freshwater fish, such as bulltrout, suckers, Dolly Varden, sculpin, and numerous other fishes that were found in Lake Union, Lake Washington, and nearby rivers and streams. The tideflats in Elliott Bay and Shilshole Bay supported a variety of shellfish, and saltwater fish, and harbor seal, sea lions, and porpoises were found in the coastal waters.

Cultural Environment

Prehistory

A small number of isolated fluted projectile points characteristic of the period between 12,000 and 11,000 BP have been found in western Washington. Early to mid-Holocene assemblages (approximately 8000 to 5000 BP), termed "Olcott," are typically found in upland settings on glacial till or inland foothill valleys away from tidal areas, where human occupation likely became established as landforms stabilized during the middle Holocene. Beginning about 5000 BP, sites in the Puget Sound region show an increased population with more complex socioeconomic organization. Ground stone and tools of bone, antler, and shell associated with fishing and plant processing become more common, and toolkits became increasingly diversified. The developing importance of woodworking in this period is evident in the presence of tools, such as adzes, wedges, and mauls. Sites from about 5000 BP to 2500 BP on or near the coast often include extensive midden deposits containing the remains of shellfish, fish, large and small mammals, and birds.

The Late Period, from about 2500 BP until widespread Euro-American contact in the early nineteenth century, is marked by trends, such as full-scale development of marine-oriented cultures on the Pacific coast, the presence of a mixed marine and terrestrial economy along the shores of Puget Sound, and further development of an inland terrestrial mammal and riverine fishing tradition. Favored areas for settlement and resource gathering were littoral, riverine, and estuarine locations.

Ethnography and Ethnohistory

The SPU campus is within the traditional territory of the *Shilshoolabsh* or Shilshole whose main settlement was on Salmon Bay[1]. The Shilshole are considered a band of the *Dxʷdəwʔabš* or "People of the Inside", now known as the Duwamish Tribe, Lushootseed-speakers who made their villages along the shorelines of Lake Union, Lake Sammamish, Lake Washington, Elliott Bay, Shilshole Bay, and the Duwamish, Black, and Cedar Rivers in present-day Seattle and

[1] Salmon Bay is a portion of the Lake Washington Ship Canal, which passes through the city of Seattle, linking Lake Washington to Puget Sound, lying west of the Fremont Cut. It is the westernmost section of the canal and empties into Puget Sound's Shilshole Bay.

Renton. Duwamish groups were linked with neighboring peoples by marital ties and shared use of some resource areas, including the Suquamish to the west, Snohomish to the north, Stillaguamish to the northeast, Snoqualmie to the east, and White and Green River groups to the south whose descendants are known collectively today as the Muckleshoot.

Native residents lived in permanent villages of cedar plank houses during the winter and traveled to seasonal camps in the spring, summer, and fall to fish, hunt, and gather shellfish and plants. In winter villages, extended families lived in cedar plank homes with one large living space subdivided by cedar mats. During spring, summer, and fall people hunted deer, elk, black bear, and small game in interior and upland areas; gathered plant resources, including greens, roots, bulbs, berries, and nuts; and harvested marine and riverine resources, especially salmon and shellfish. A variety of specialized canoe types were developed for travel on rivers, lakes, and in salt water. Groups would periodically congregate at fishing sites, shellfish beds, and root-gathering areas, such as Shilshole Bay and small creeks in the project vicinity, which provided a wealth and variety of resources. Fish were taken using weirs, dip nets, traps, and spears and dried before being transported back to the central village for storage. Botanical resources served dietary, medicinal, and utilitarian needs and played a primary role in the everyday lives of Native Americans. Hunting was conducted primarily in the late summer and fall and often in conjunction with berry picking. Terrestrial mammals, such as elk, deer, bear, raccoon, and beaver were among the most economically important game animals, and birds, including a variety of waterfowl species, were also captured with the aid of nets and spears.

Settlers reported Native people fishing, gathering clams, and harvesting berries at Salmon Bay in the summer in the 1850s, seasonal camps were common around the perimeter of Queen Anne Hill, and people hunted on the hill itself. Twentieth century ethnographers recorded native names for several locations in the project vicinity. What is now the Fremont cut, bordering the SPU campus on the north, was a creek prior to the construction of the Lake Washington ship canal. Settlers named it Ross Creek, but Waterman (1922) recorded its Lushootseed name as *Gwa'xwopl*, which translated as "outlet." This stream had runs of pink, chum, chinook, and coho salmon.

In the late eighteenth century, the arrival of Euro-American settlers ushered in a period of rapid cultural change and demographic shifts in the Native American population of the region. Smallpox and other epidemic diseases often affected native populations even before direct contact. The Duwamish were signatories to the Treaty of Point Elliot in 1855, which established government-to-government relationships between the signatory tribes and the United States and guaranteed hunting and fishing rights and reservations to the Tribes in exchange for their ceded lands. In 1865, Seattle passed an ordinance banning Native Americans from living in the city, displacing Duwamish communities. One year later, prominent leaders of Seattle's settler community successfully petitioned Congressman Arthur Denny.to block the establishment of a Duwamish reservation along the Black River. Despite the deliberate attempts of Seattle settlers to force them out, some Shilshole people remained in their traditional lands and some families remained in the area until the construction of the Hiram M. Chittenden locks. Intermarriage also led to a cluster of mixed-race families living in Ballard. Today, many people of Duwamish descent live among the Muckleshoot, Snoqualmie, Suquamish, and Tulalip Tribes as a result of reservations established by treaties concluded with the US Government in 1855–1856, while other Duwamish peoples continue to seek federal recognition.

Euroamerican History

Permanent Euro-American settlement of Seattle commenced in 1851, when David Denny traveled from Portland to Olympia and then sailed up Puget Sound, landing at the mouth of the Duwamish River. His brother Arthur Denny soon followed with a larger party of settlers and landed at Alki on November 13, 1851. The next year most of the party relocated to the east, filing claims under the Oregon Donation Act in what is now the downtown area of Seattle. Among them, David Denny and Thomas Mercer claimed land on the west shore of Lake Union in 1866, southeast of the SPU campus and established homes there.

Lands including portions of the SPU campus left the public domain through claims under the Oregon Donation Act of 1850. John Ross settled lands including the northwest corner of the SPU campus in 1853 and a claim was granted in 1877. The 1856 General Land Office Survey map depicts Ross's home along the creek just north of the proposed northwest boundary expansion area with cultivated fields located within the expansion area. This claim included the eastern campus area including proposed east and southeast boundary expansion areas. The Strickler home is also depicted adjacent to the SPU campus on the north with cultivated fields extending south into the campus area. The project vicinity was still predominately a forested wilderness when Ross and Strickler settled their claims, with lands southeast of campus described as rolling with second rate timber of predominately hemlock and cedar.

Seattle Pacific University was founded as Seattle Seminary in 1891 by Alexander Beers and his wife Adelaide. That year, Nils B. Peterson offered five acres for the founding of the seminary in the community of Ross, then a suburb of Seattle, and construction of the first building began on October 29, 1891. The school opened in 1893. The original building, Alexander Hall, still stands in the center of campus. By 1930 there were six campus buildings.

By 1950 there were several new buildings south of Alexander Hall. Campus development also expanded onto the steeper slopes with the construction of residence halls in the 1960s.

Potential for Archaeological Discovery

Geological maps divide the SPU campus into five zones with varying potential for preserved archaeological sites to be encountered during excavation for planned and proposed projects under the ***Draft MIMP***. Review of geotechnical borehole logs is generally consistent with mapped geological units and provides a basis for estimating the depths of different deposits. Based on geological maps, the proposed MIO campus boundary can be divided into zones of high, moderate, and low potential for intact buried archaeological sites (**Figure 3.3-1**).

High Potential

Research indicates that the SPU campus has been accessible for human use for several thousand years, and that humans have been present in the region for at least 11,000 years. It has also shown that the campus lies in close proximity to environments, resources, travel corridors, and settlement areas that have long been valued and used by local Native Americans. Archaeological sites are most likely to be encountered in undisturbed areas where Holocene deposits are present and in proximity to water.

Within the existing SPU campus, there are no mapped Holocene-age surface deposits, but recent alluvium was recorded in several. Holocene peat deposits are mapped to the north between W

Bertona and the ship canal in the proposed East MIO boundary. This area, therefore, has relatively high-potential for intact pre-contact period archaeological sites. The Holocene deposits developed along Ross Creek before it was removed during ship canal construction and are in the vicinity of the former Ross home. This portion of the SPU campus is therefore also considered to have the highest potential for containing intact, contact and post-contact age deposits. If present, potentially significant archaeological deposits would most likely be encountered below fill in these Holocene deposits, within the area mapped as Qw, although if present, precontact sites may be deeply buried.

Moderate Potential

The area mapped as Qvr (recessional glacial outwash) is generally considered to have moderate potential for intact, buried archaeological sites. Topography within this zone is relatively level to undulating with a gradual increase in slope from north to south. Fill was only identified in 30% of geotechnical borehole logs from this area. The 19th century campus area, which is still the heart of campus, is entirely within the Qvr area. Most of this zone is classified as high risk in the DAHP predictive model, likely because of the accessible topography and proximity to the historical Ross Creek. However, the lack of Holocene deposition based on previous geotechnical investigations reduces the likelihood that archaeological sites are present. Geotechnical sampling is not even across this zone so Holocene deposits may be present in some areas either at the surface or between fill and recessional outwash. Fill deposits also have potential to contain cultural material from the post-contact period and features could intrude into the upper glacial deposit.

In 1891, when Alexander Hall was built, it was probably not yet on a City Sewer system, but it is not known whether there was a septic system or privies. One or more privy pits intruding into the glacial deposit could be encountered in the central campus area, and if present, would be potentially eligible for listing in the NRHP.

A small portion of the northwest campus is mapped as Qpo, a nonglacial deposit of Pleistocene age consisting of very dense sand. A boring in this area is consistent with this mapping and did not identify Holocene deposits between fill and the sand deposit. Qpo deposits would have very low potential for archaeological sites; however, a lack of Holocene deposition cannot be firmly established from a single borehole, this area is considered to have moderate potential pending verification of the geologic mapping through subsurface investigations whether geotechnical or archaeological.

Low Potential

South of the Qvr, the steep slopes of Queen Anne Hill are mapped as Qvlc and Qva, types of advance outwash deposits. Due to the combination of glacial deposits, steep slopes, and areas of extensive regrading for road and house construction, these zones are considered to have low potential for intact buried archaeological sites. Although the area was certainly used by people in both the pre-and post-contact eras, geotechnical borings did not encounter Holocene-age deposits. Geologic mapping also indicates mass-wastage deposits in this area reflecting the instability of these slopes prior to the construction of terraces and retaining walls in the 20th century. The conditions in this zone would not have been conducive to preservation of archaeological sites. If present, sites would most likely be isolated artifacts in disturbed contexts or concentrations of domestic debris within fill.

3.3-2 Impacts of the Proposed Action and Alternatives

Specific recommendations relative to each planned and potential project are identified in the Archaeology Discipline Report that is on-file with the City of Seattle and with DAHP.

Draft MIMP (Proposed Action)

Under the ***Draft MIMP,*** the likelihood of encountering resources would depend on the project location and depths of excavation. Although no sites have been recorded in the east MIO boundary expansion area and the northeast portion of campus, these areas have a High Potential for buried archaeological sites. Archaeological monitoring of geotechnical field investigations, archaeological borings, or other mechanical excavation methods may be necessary to provide adequate opportunity to identify deeply buried sites in areas of deep fill, associated with mid to late 20th century residential use. Fill was observed in most geotechnical borings to depths ranging from 3 to 12.5 feet bs.

Planned Campus Development

Seattle Pacific University proposes three planned projects, which include construction of a new campus building – the Student Center, demolition of an existing building, and renovation of another building (refer to **Chapter 2** for additional details). Specific recommendations for each planned project are outlined in the Cultural Resources report. In general, an archaeologist should review project plans and data from geotechnical investigations at the time of the development proposal, and prepare a Monitoring and Inadvertent Discovery Plan (MIDP) or an Inadvertent Discovery Plan (IDP) prior to ground disturbance.

Potential Campus Development

Seattle Pacific University has identified approximately 47 potential long-term development projects, including 41 located within the existing MIO boundaries and six within the proposed MIO boundary expansion areas.

The central campus area is generally considered to have Moderate Potential for containing archaeological resources. Based on current information, it is expected that most projects may proceed with spot-check monitoring to confirm the absence of Holocene deposits between fill and glacial, and an IDP. An IDP without monitoring may be appropriate for projects in areas where fill and Holocene deposits are both absent or where recent construction has already disturbed historic fill.

The south/southwest portion of campus is largely identified as a Low Potential area for intact archaeological resources. Projects that occur in these areas are generally recommended to proceed under an IDP prepared by a professional archaeologist prior to ground disturbance.

No pre-contact archaeological sites have been identified on the SPU campus. One post-contact period site has been recorded within the existing SPU MIO boundary; this site is within the footprint of a potential project. Adverse effects to the archaeological site could be prevented by avoiding ground disturbance within the site boundary. If avoidance is not possible, a DAHP-issued permit may be required for the project, along with archaeological monitoring for site documentation as mitigation.

Alternative 1 – No Action Alternative

Under the ***No Action Alternative,*** new development and demolition would occur in areas of campus identified as having Moderate Potential and Low Potential for containing archaeological resources. Depending on the project location, an IDP or a project specific MIDP could be implemented to manage potential adverse impacts to cultural resources, should they be present.

Because no boundary expansion on the east side of the campus would occur, High Potential areas would not be affected under the ***No Action Alternative***.

The one post-contact period site recorded within the existing SPU MIO boundary also would not be expected to be affected.

Alternative 2 – No Boundary Expansion and No Increase to Height Limits

Under ***Alternative 2,*** additional development and demolition would largely occur in areas of campus identified as having Moderate Potential and Low Potential for containing archaeological resources. Overall, there would be a higher potential to impact archaeological resources present in Moderate Potential areas of the campus as compared to the ***Draft MIMP***, because a greater number of buildings would need to be developed in these areas. However, without the boundary expansion on the east side of the campus, High Potential areas expected to contain archaeological resources would be largely avoided under ***Alternative 2***.

Impacts to the recorded post-contact period site that has been recorded on the campus would be the same as described under the ***Draft MIMP***.

Alternative 3 – Boundary Expansion and No Change to Height Limits

Under ***Alternative 3,*** impacts to cultural resources would be similar to but slightly greater than the ***Draft MIMP***. This is because there would be a higher potential to impact archaeological resources present in Moderate Potential areas of campus as compared to the ***Draft MIMP***, due to a greater number of buildings needing to be developed in these areas.

Impacts to the recorded post-contact period site that has been recorded on the campus would be the same as described under the ***Draft MIMP***.

Alternative 4 – No Boundary Expansion and Increased Height Limits

Under ***Alternative 4***, new development and demolition would largely occur in areas of campus identified as having Moderate Potential and Low Potential for containing archaeological resources. Overall, there would be a higher potential to impact archaeological resources present in Moderate Potential areas of the campus as compared to the ***Draft MIMP***, because a greater number of buildings would need to be developed in these locations. However, without the boundary expansion on the east side of the campus, most of the High Potential areas expected to contain archaeological resources would be avoided under ***Alternative 4***.

Impacts to the recorded post-contact period site that has been recorded on the campus would be the same as described under the ***Draft MIMP***.

Alternative 5 – Boundary Expansion, Increased Height Limits and No Street Vacations

Under ***Alternative 5***, impacts to archaeological resources would be similar to but slightly greater than the ***Draft MIMP***, as a greater number of buildings would need to be built in Moderate Potential areas as compared to the ***Draft MIMP***.

Impacts to the recorded post-contact period site that has been recorded on the campus would be the same as described under the ***Draft MIMP***.

3.3-3 Mitigation Measures

Measures Applicable to High Potential Areas and some Moderate Potential Areas

The following recommendations apply to projects in the area mapped as Qw and in locations mapped as Qvr where Holocene deposits were observed in geotechnical borings.

- Archaeological survey with subsurface testing is recommended prior to ground disturbance for projects with the potential to encounter previously undisturbed Holocene deposits. Archaeological monitoring of geotechnical field investigations, archaeological borings, or other mechanical excavation methods may be required to provide adequate opportunity to identify deeply buried sites in areas of deep fill.

- Affected Tribes should be notified in advance of archaeological field investigations and afforded the opportunity to observe or participate.

- If archaeological sites are recorded during survey, the Department of Archaeology and Historic Preservation (DAHP) and affected Tribes should be consulted to determine appropriate site treatment.

- Projects impacting recorded sites should be designed to avoid ground disturbance within the site boundary. If avoidance is not possible, the project would require an Archaeological Site Alteration and Excavation Permit from the DAHP prior to any ground disturbance within the site boundary – along with archaeological monitoring for site documentation.

Measures Applicable to Moderate Potential Areas

The following recommendations apply to projects in the area mapped as Qvr.

- During the design phase, a professional archaeologist should review project plans and recent geotechnical reports produced for the project to determine if an MIDP or an IDP is needed:

    - An MIDP should be prepared by a professional archaeologist prior to ground disturbance and include a provision for notifying affected Tribes in advance of ground disturbance and inviting observation by a Tribal representative if desired.

The MIDP should also establish monitoring methods and protocols to be followed in the event of an inadvertent discovery, including notification of affected Tribes and the DAHP: or

- An IDP should be prepared by a professional archaeologist prior to ground disturbance and should establish procedures and protocols to be followed in the event that construction excavations encounter potentially significant archaeological material.

- Construction crews involved in ground disturbance should be briefed on the MIDP in a tailgate at the beginning of the project, prior to beginning ground disturbing work.

- An IDP without monitoring may be appropriate for projects in areas where fill and Holocene deposits are absent or where recent construction has already disturbed historic fill.

Measures Applicable to Low Potential Areas

The following recommendations apply to projects in the areas mapped as Qva or Qvlc.

- Projects in these areas are recommended to proceed under an IDP. The IDP should be prepared by a professional archaeologist prior to ground disturbance and should establish procedures and protocols to be followed in the event that construction excavations encounter potentially significant archaeological material.

- Construction crews involved in ground disturbance should be briefed on the IDP in a tailgate at the beginning of the project, prior to beginning ground disturbing work.

3.3-4 Significant Unavoidable Adverse Impacts

With implementation of the identified mitigation measures noted above, no significant unavoidable adverse cultural resources-related impacts are anticipated.