

DATE: March 3, 2023

TO: Recipients of the State Environmental Policy Act Determination of Nonsignificance (SEPA DNS) for Maple Elementary School Field Improvements Project

FROM: Fred Podesta, SEPA official



Seattle Public Schools (SPS) has determined that the final SEPA environmental checklist dated February 2023, meets our environmental review needs for the current proposal for the field improvements project at Maple Elementary School. The proposal is largely funded by a capital improvement grant from the City of Seattle. SPS plans to construct the improvements in the summer of 2023.

After conducting an independent review, SPS has determined that the project does not have significant adverse impacts on the environment as documented in the checklist and the enclosed DNS.

The final SEPA checklist discusses the potential environmental impacts that could result from construction of the project. A draft of the checklist was released for public comment from December 16, 2022, to January 16, 2023. Comments received informed revisions to the final SEPA checklist on which the DNS is based. The responses to written comments received are summarized in the SEPA Public Comments and Seattle Public Schools Responses, included with the SEPA checklist.

Thank you for your participation in the SPS SEPA process. Your involvement has helped to make the Maple Elementary School Field Improvements proposal a much better project.

Fred Podesta, Interim Deputy Superintendent

P.O. Box 34165, MS 22-183, Seattle WA 98124 * 206-252-0102

**STATE ENVIRONMENTAL POLICY ACT
DETERMINATION OF NONSIGNIFICANCE (DNS)
MAPLE ELEMENTARY SCHOOL FIELD IMPROVEMENTS PROJECT**

Date of issuance: March 10, 2023
Lead agency: Seattle Public Schools
Location of proposal: Maple Elementary School, 4925 Corson Ave. S, Seattle, WA
(Section 20, Township 24N, Range 04E)

Description of proposal – Seattle Public Schools (SPS) is proposing to improve a grass field at Maple Elementary School. Improvements at the field will include installation of a new synthetic turf (with sand underdrain and cork infill) playfield with a concrete perimeter jogging path, new amphitheater, new benches, new picnic tables, a natural learning area, and new play equipment at the existing play area. Stormwater runoff will be collected in catch basin structures and the playfield underdrain system and routed to a proposed StormTech Chamber detention system placed below the field. New trees and shrubs will be planted at landscape areas. A seal coat will be applied over the existing asphalt play area, and surface games will be restriped to match existing games. Installation of the natural learning area will include a picnic table and log seating, boulders, crushed gravel surfacing, and landscape beds with trees and shrubs. Along the eastern edge of the site, a new 12-inch wide concrete mow strip will be placed under the fence and a new chain-link fabric installed on the existing fence. Existing landscape beds will be restored by removing weeds by hand and adding mulch. At the north play area, the project will remove and replace portions of the existing cracked asphalt with new asphalt and new lawn areas. The existing fencing will be slightly modified to provide a more secure play area. Existing play equipment will be replaced in its current location.

The lead agency for this proposal has determined that it will not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request at the following location: John Stanford Center, 2445 3rd Ave. S, Seattle, WA 98124-1165 (Attn: Conrad Plyler, Phone: 206-252-0662) and online at: <https://www.seattleschools.org/departments/sepa/>

This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal prior to ~~March 27~~ April 11, 2023 (at least 15 days from the issuance date listed above). This DNS may be appealed by written notice setting forth specific factual objections received no later than ~~March 27~~ April 11, 2023 (at least 15 days), sent to:

Superintendent
Seattle Public Schools
P.O. Box 34165, MS 32-151
Seattle, WA 98124-1165

Name of agency making threshold determination: Seattle Public Schools
Responsible Official: Fred Podesta, Interim Deputy Superintendent, Seattle Public Schools
Phone: 206-252-0102
Address: MS 22-183, P.O. Box 34165, Seattle, WA 98124-1165

Date: March 3, 2023 **Signature:** 



Maple Elementary School Field Improvements Project

Final SEPA Checklist

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While Seattle Public Schools endeavors to only post documents optimized for accessibility, due to the nature and complexity of some documents, an accessible version of the document may not be available. In these limited circumstances, the district will provide equally effective alternate access.

For questions and more information about this document, please contact the following:

Tom Gut
Senior Project Manager
twgut@seattleschools.org

While the Maple Elementary School Field Improvement Project Final State Environmental Policy Act (SEPA) Checklist is accessible and ADA compliant, the attached figures and appendices, which support the checklist, contain complex material that are not accessible. The following is a description of what is contained in the figures and appendices:

- **Figure 1, Maple Elementary School Vicinity, Seattle, Washington**
Figure 1 is an aerial photograph of the Maple Elementary School site and its surrounding neighborhood to within an approximately three-block radius. The project area is outlined in red.
- **Figure 2, Site Plans – Maple Elementary School, Seattle, Washington**
Figure 2 consists of two site plans showing the work proposed. Sheet L1.01 is the southern portion of the site showing the new synthetic turf field, drainage system, concrete paving around the field, concrete stairs, and other site amenities. Sheet L1.02 is the northern portion of the site showing the proposed new concrete paving, new asphalt paving, and other site improvements.
- **Appendix A: Greenhouse Gas Emissions Worksheet**
Appendix A is the Greenhouse Gas Emissions Worksheet prepared by Environmental Science Associates (ESA). This worksheet estimates the embodied Greenhouse Gas Emissions that could be created from this construction project. Note that it is an estimate that analyzed potential emissions that may be created through the extraction, processing, transportation, construction, and disposal of building materials, as well as emissions created through landscape disturbance (by both soil disturbance and changes in above ground biomass).
- **Appendix B: Maple Elementary School Field Improvement Project SEPA Public Comments and Seattle Public Schools Responses**
Appendix B covers a summary of the comments received during the Public Comment Period from December 16, 2022, to January 16, 2023. Similar comments have been grouped together and responded to by Seattle Public Schools. Following each comment, the numbers in brackets refer to the commenter number in the first section of the Appendix.

This concludes the SEPA checklist.

**Maple Elementary School
Field Improvements
FINAL SEPA Checklist**

February 17, 2023

PREPARED FOR:

SEATTLE PUBLIC SCHOOLS
2445 3RD AVENUE S
SEATTLE, WA 98134

PREPARED BY:

ESA
2801 ALASKAN WAY, STE. 200
SEATTLE, WA 98121

PREFACE

The purpose of this Final Environmental Checklist is to identify and evaluate probable environmental impacts that could result for the **Maple Elementary School Field Improvements Project** and to identify measures to mitigate those impacts. Seattle Public Schools (SPS) is proposing the **Maple Elementary School Field Improvements Project** to improve an existing grass field at Maple Elementary School through a capital improvement grant.

Improvements at the field will include installation/construction of a new synthetic turf (with cork infill) playfield with a concrete perimeter jogging path, installation of a new amphitheater, new benches, new picnic tables, a natural learning area, and new play equipment at the existing play area.

At the north play area, the project will remove and replace portions of the existing cracked asphalt with new asphalt and new lawn areas. The existing fencing will be slightly modified to provide a more secure play area. Existing play equipment will be replaced in its current location.

New trees and shrubs will be planted in landscape areas. A seal coat will be applied over the existing asphalt hard surface play area and surface games will be restriped to match existing games. Installation of the natural learning area will include a picnic table and log seating, boulders, crushed gravel surfacing, and landscape beds with trees and shrubs. Along the eastern edge of the site, a new 12-inch wide concrete mowstrip will be placed under the fence to allow easier maintenance of grass and new chain-link fabric at the existing fence will be installed. Existing landscape beds will be restored by removing weeds by hand and adding mulch.

The State Environmental Policy Act (SEPA) (Chapter 43.21C of the Revised Code of Washington [RCW]) requires that all governmental agencies consider the environmental impacts of a proposal before the proposal is decided upon. A Draft SEPA Environmental Checklist was issued on December 16, 2022. The comment period on the Draft SEPA Checklist for the Maple Elementary School Field Improvements Project was from December 16, 2022 to January 16, 2023. This Final SEPA Environmental Checklist has been prepared in compliance with the SEPA Rules, effective April 4, 1984, as amended (Chapter 197-11 of the Washington Administrative Code); SPS SEPA Policy No. 6890; and the City of Seattle Municipal Code (SMC 25.05), which implements SEPA.

This document serves as SEPA review for the **Maple Elementary School Field Improvements Project**. Analysis associated with the project contained in this Environmental Checklist is on-file with SPS. This Environmental Checklist is organized into three major sections. *Section A* of the Checklist (starting on page 1) provides background information concerning the project (e.g., purpose, proponent/contact person, project description, project location, etc.). *Section B* (starting on page 3) contains the analysis of environmental impacts that could result from implementation of the project, based on review of major environmental parameters. This section also identifies possible mitigation measures. *Section C* (on page 25) contains the signature of the SPS Project Manager, confirming the completeness of this Checklist.

Attached to this Final SEPA Checklist are the responses to the comments received on the Draft SEPA Checklist.

Appendices to this Environmental Checklist include:

- Appendix A Greenhouse Gas Emissions Worksheet.
- Appendix B Response to Public Comments.

Copies of the appendices are available from SPS upon request at SEPAComments@seattleschools.org or calling 206-252-0990.

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FIGURES

Figure 1. Vicinity Map

Figure 2. Site Plan

APPENDIX

A. GREENHOUSE GAS EMISSIONS WORKSHEET

B. RESPONSE TO PUBLIC COMMENTS

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

- 1. Name of the proposed project, if applicable:**
Maple Elementary School Field Improvements
- 2. Name of Applicant:**
Seattle Public Schools (SPS)
- 3. Address and phone number of applicant and contact person:**
Conrad Plyler
Seattle Public Schools, Seattle School District No. 1
2445 3rd Avenue S
Seattle, WA 98134
206-252-0662
- 4. Date checklist prepared:**
February 17, 2023
- 5. Agency requesting checklist:**
Seattle Public Schools (SPS)
- 6. Proposed timing or schedule (including phasing, if applicable):**
Construction is expected to occur in the summer of 2023.
- 7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**
There are no plans for future additions or expansions associated with this project.
- 8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**
 - Seattle Department of Construction & Inspections (SDCI) Drainage Report Maple Elementary School – Playfield Replacement (Jacobson Consulting Engineers 2022).
- 9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**
No other government approvals of other proposals directly affecting the property are known to be pending.

10. List any governmental approvals or permits that will be needed for your proposal, if known:

The following permits/approvals may be required for this project:

- City of Seattle Clearing and Grading Permit

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

Seattle Public Schools (SPS) is proposing to improve a grass field at Maple Elementary School (see Figure 1, *Vicinity Map*, and Figure 2, *Site Plan* Sheets L1.01 and L1.02). The Friends of Maple community group received a capital improvement grant from the City of Seattle to prepare a master plan for the Maple Elementary School in 2018. That master planning process, conducted through the Self-Help division of SPS, included community meetings and robust input from Maple Elementary School staff, students, parents, and community members. SPS is implementing portions of the approved master plan and has reviewed the current field drawings with members of that group, the Parent Teacher Student Association (PTSA), and principal, and the group is in favor and full support of the project.

Improvements at the field will include installation of a new synthetic turf (with sand underdrain and cork infill) playfield with a concrete perimeter jogging path, installation of a new amphitheater, new benches, new picnic tables, a natural learning area, and new play equipment at the existing play area. Stormwater runoff will be collected in catch basin structures and the playfield underdrain system and routed to a proposed StormTech Chamber detention system placed below the field. New trees and shrubs will be planted at landscape areas. A seal coat will be applied over the existing asphalt hard surface play area and surface games will be restriped to match existing games. Installation of the natural learning area will include a picnic table and log seating, boulders, crushed gravel surfacing, and landscape beds with trees and shrubs. Along the eastern edge of the site, a new 12-inch wide concrete mowstrip will be placed under the fence to allow easier maintenance of grass and new chain-link fabric at the existing fence will be installed. Existing landscape beds will be restored by removing weeds by hand and adding mulch.

At the north play area, the project will remove and replace portions of the existing cracked asphalt with new asphalt and new lawn areas. The existing fencing will be slightly modified to provide a more secure play area. Existing play equipment will be replaced in its current location.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known.

If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The school is located at 4925 Corson Ave S, Seattle, WA 98108 (see **Figure 1**). The site is bounded by Maple Wood Playfield to the north, single-family residences along S Pearl Street to the south and Corson Avenue S to the east, and Interstate 5 (I-5) to the west. The site is located in Section 20, Township 24N, Range 4E. The site is made up of the following parcel and legal description (King County 2022a):

- **3869400560.** KING COUNTY 2ND ADD BLKS 5 THRU 7 LY ELY OF PRIMARY STATE HWY NO 1 TGW VAC STS LY WITHIN & TGW POR OF VAC STS ADJ.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. **General description of the site (underline):**

Flat, rolling, hilly, steep slopes, mountainous, other _____

b. **What is the steepest slope on the site (approximate percent slope)?**

The steepest slope of the site is approximately 12 percent according to the Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2022). One steep slope is mapped to the north of the school building on the SDCI GIS database (Seattle Department of Construction & Inspections 2022).

c. **What general types of soils are found on the site (for example clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.**

Urban Land composed of Alderwood complex soils are found at the site (NRCS 2022). Beacon Hill, on which the project site is situated, is a glacial drumlin. A preliminary review of archival resources, Light Detection and Ranging (LiDAR) imagery (King County 2022c), a preconstruction topographical survey of the proposed school site in 1968 and 1970 (Durham, Anderson, Freed 1970) and geotechnical test holes in 1969 (presented in Durham, Anderson, Freed 1970) indicated that the project site (prior to school construction) had approximately 1 to 2 feet of “brown silty organic topsoil” overlying “grey-brown dense clayey silt,” interpreted as likely Lawton clay, deposited during recessional

glaciolacustrine conditions (Mackin et al. 1950). Additional geotechnical tests performed in 2003 and 2004 (Krazan and Associates 2003, 2004) illustrated stratigraphic changes at the project site likely caused by site preparation for original school construction. Significantly, none of the geotechnical borings noted the presence of topsoil, suggesting this material likely had been graded from the parcel during site preparation. Several tests noted the presence of several feet of placed fill where little to no fill had previously been noted in 1969.

d. Are there any surface indications or a history of unstable soils in the immediate vicinity? If so, describe.

There are no surface indications of unstable soils in the immediate vicinity.

e. Describe the purpose, type, total area, and approximate quantities of total affected area of any filling or grading proposed. Indicate source of fill.

The project site is roughly 6.74 acres with the expected construction limits being approximately 0.85 acre. Approximately 325 cubic yards of soil will be exported and approximately 600 cubic yards of fill will be utilized. Imported fill material to the site is expected to be sourced from a City of Seattle-approved location by the contractor and will be approved by the City as a clean source. Excavated material will be disposed of at an approved off-site facility.

f. Could erosion occur because of clearing, construction, or use? If so, generally describe.

Construction activities at the site will expose soils, increasing the potential for soil erosion; however, the implementation of erosion control measures and the implementation of best management practices (BMPs) during construction will mitigate potential impacts.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Approximately 57 percent of the 0.85-acre (37,026 square foot) construction area will be covered with impervious surfaces, including 9,829 square feet of synthetic turf with cork infill, 5,578 square feet of concrete, 3,027 square feet of gravel and 3,085 square feet of asphalt, after project construction.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Temporary erosion and sediment control (TESC) BMPs will be employed during construction activities to ensure that sediment is not deposited

onto City streets or allowed to flow into stormwater conveyance facilities. Planned measures include installing catch basin filter socks in existing catch basin structures, straw wattles, silt fencing, and interceptor swales set up around perimeter to capture and keep construction stormwater on-site and routed to sediment settlement tank(s). Additional measures for the project include using existing paved drives, fire lanes, and parking areas for construction access and staging and laydown areas for construction equipment and materials. The TESC Plan will be prepared in accordance with the requirements of the City's adopted stormwater manual (City of Seattle 2021b).

2. Air

a. **What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.**

Project activities will produce air emissions during construction. Construction of this project could generate vehicle emissions, fugitive dust, and odors.

Another consideration regarding air quality and climate relates to greenhouse gas (GHG) emissions. To evaluate climate change impacts of the project relative to the requirements of the City of Seattle, a Greenhouse Gas Emissions Worksheet has been prepared (**Appendix A** of this Environmental Checklist). This Worksheet estimates the emissions from the following sources: embodied emissions, energy-related emissions, and transportation related emissions.

The project includes approximately 5,578 square feet of concrete for sidewalks, stairs, and a ramp. In total, the estimated lifespan emissions for the project would be approximately 279 metric tons of carbon dioxide equivalent (MTCO_{2e}). The project is estimated to generate approximately 5.58 MTCO_{2e} annually (based on the methodology in King County 2007), assuming a lifespan of 50 years for the pavement. For reference, Ecology's threshold for potential significant GHG emissions is 25,000 MTCO_{2e} annually. Therefore, the project is not expected to generate a significant amount of GHG emissions.

Gravel, synthetic turf, asphalt, and the removal of grass are not considered in the Greenhouse Gas Worksheet. Roughly 3,027 square feet of gravel (picnic and amphitheater seating spaces), an estimated 9,529 square foot synthetic turf play field with underdrains (considered impervious per City stormwater code), and approximately 3,085 square feet of asphalt will be constructed for the project.

There is not a consensus in the literature on how much carbon natural grass sequesters. Carbon sequestration rates vary depending on

ecoregion, type of grass and rainfall. On average, established, managed turfgrass sequesters at a rate of an estimated 5.3 mg CO₂ per ha per year (Phillips et al 2022). Additionally, the hidden carbon costs due to lawn mowing and fertilizer use negate the sink capacity (Selhorst and Lal 2013). The synthetic turf field would not produce operation and maintenance emissions (e.g., fertilizing, mowing, watering) that are typically needed for a natural grass field.

The synthetic field will have a cork infill and not the older standard of tire rubber crumb (TRC) that is associated with emission of volatile organic compounds, leaching heavy metals and other contaminants to water, and a large GHG footprint (Cheng et al. 2014). The cork infill is often derived from the bark of cork trees and does not require that the trees be felled for production. Additionally, the cork is natural and non-toxic, with the primary disadvantages being that it may degrade slightly over time, it can compact a bit, and may serve as home to some insects. While lifecycle assessments of synthetic cork fields are not readily available, the magnitude of the emissions are expected to be well below that of a TRC turf (Russo et al 2022). Lifecycle emissions from a TRC turf are primarily from the production (e.g., oil and gas industry contributions) and disposal phases of the product's life. For cork, the primary source of GHG emissions are expected to be in product handling and transport which would occur regardless of turf type. The proposed cork turf field is not expected to cause a significant increase in the field's overall GHG footprint.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

There are no off-site sources of emissions or odors that would affect the project.

c. Proposed measures to reduce or control emissions or other impacts to air, if any.

Because impacts on air are not expected, no measures are proposed to reduce or control emissions.

3. Water

a. Surface Water:

1. **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

There are no surface water bodies on or in the immediate vicinity of the site including year-round and seasonal streams, saltwater, lakes, ponds and wetlands. A mapped wetland occurs approximately 0.12 mile to the north of the project site at Maple Wood Playfield (USFWS 2021). According to the U.S. Fish and Wildlife Service (USFWS) Wetlands Mapper (USFWS 2021), the nearest surface water bodies include the Duwamish Waterway approximately 0.9 mile to the west and an unnamed stream with Permanent Identifier 165398883 approximately 0.8 mile to the southeast, south of the S Albro Place entrance to I-5 (USFWS 2021).

2. **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

The project will not require any work over, in, or adjacent to water or wetlands.

3. **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

No fill or dredge material will be placed in or removed from surface water or wetlands.

4. **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities, if known.**

The project will not require surface water withdrawals or diversions.

5. **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Maps, the site is not located within the 100-year floodplain (FEMA 2023).

- 6. Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

The project does not include any discharges of waste materials.

b. Ground Water:

- 1. Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.**

Groundwater will not be withdrawn from a well for drinking water or other purposes.

- 2. Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals ... ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

No waste material will be discharged into the ground. The project site will not use septic tanks.

c. Water Runoff (including stormwater)

- 1. Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

Stormwater runoff will be collected in catch basin structures and the playfield underdrain system and routed to a proposed StormTech Chamber detention system placed below the field. The field drains to a crushed rock base and then to a subdrainage collection system of 4-inch perforated pipes in gravel trenches that are connected to the StormTech Chamber stormwater detention system. The detention system will discharge stormwater at a controlled rate to the combined sewer system located in S Pearl Street located south of the project site.

Currently, stormwater from the project site sheet flows across the existing grass playfield and into the right-of-way where the stormwater is collected in catch basins along the curb flowline

and then conveyed to a combined sewer system located in the street (Jacobson Consulting Engineers 2022).

2. Could waste materials enter ground or surface waters? If so, generally describe.

No waste material will be discharged to ground or surface waters as a result of the project.

3. Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

The project involves the installation of an approximately 9,529 square foot synthetic turf field with drainage underneath the field. The field will drain to a crushed rock base and then to a subdrainage collection system of 4-inch perforated pipes in gravel trenches that are connected to the StormTech Chamber stormwater detention system.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

SPS will identify site-specific BMPs in the construction contract documents that the construction contractor will be required to implement to reduce potential impacts on surface and groundwater.

4. Plants

a. Check the types of vegetation found on the site:

deciduous tree: alder, maple, aspen, other

evergreen tree: fir, cedar, pine, other

shrubs

grass

pasture

crop or grain

Orchards, vineyards or other permanent crops.

wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

water plants: water lily, eelgrass, milfoil, other

other types of vegetation: English ivy (*Hedera helix*), Himalayan blackberry (*Rubus armeniacus*)

b. What kind and amount of vegetation will be removed or altered?

The project will not result significant vegetation removal or alteration. Approximately 18,134 square feet of existing lawn will be replaced with new concrete, gravel, asphalt, and synthetic turf.

c. List threatened or endangered species known to be on or near the site.

No threatened or endangered plant species are known to be on or near the site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

A landscaping plan has been prepared for the site. Additional measures to preserve and enhance vegetation may include the following:

- Plant material selection would draw from the regional character and include drought-tolerant, native, and adapted plants selected for suitability in the Puget Sound Lowlands, including shrubs and groundcovers.
- Existing soils would be amended and mulched to ensure the long-term health and success of the investments made in new landscape areas.

e. List all noxious weeds and invasive species known to be on or near the site.

King County iMap does not map any regulated class A or regulated class B noxious weeds as occurring on the site (King County 2022b). Himalayan blackberry is a non-regulated noxious weed in King County. Property owners are recommended to control non-regulated noxious weeds where feasible (King County 2022d).

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include:

Animals present on the site are those that are typical urban birds and animals.

- **Fish:** Not applicable.
- **Amphibians:** None observed.
- **Reptiles:** None observed.
- **Birds:** Hummingbirds, gull, American crow, robin, Steller's jay, songbirds.
- **Mammals:** Norway rat, racoon, squirrel, opossum.

b. List any threatened or endangered species known to be on near the site.

According to the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) program maps, there are no state-listed species on the project site (WDFW 2022). The USFWS Environmental Conservation Online System (ECOS) Information for Planning and Consultation (IPaC) online tool does not designate critical habitat for threatened or endangered species on the site (USFWS 2022b). The IPaC online tool does map north American wolverine, marbled murrelet, yellow-billed cuckoo, and monarch butterfly, all species listed as threatened, as occurring within the region. However, suitable habitats for these species (such as old-growth forests, riparian forests, and/or large prairies) do not exist on-site or in the vicinity. There are no other threatened or endangered species known to be on or near the project site. Therefore, the potential for threatened or endangered animal species to be present is low.

c. Is the site part of a migration route? If so, explain.

The Puget Sound area is located within the Pacific Flyway, which is a flight corridor for migrating waterfowl and other avian fauna. The Pacific Flyway extends from Alaska to Mexico and South America. No portion of the project will interfere with or alter the Pacific Flyway.

d. Proposed measures to preserve or enhance wildlife, if any.

New trees and native plants with habitat attributes will be planted throughout the site. These improvements will increase habitat function and opportunities throughout the site.

e. List any invasive animal species known to be on or near the site.

Invasive animal species in the area include Norway rat, raccoon, opossum, and rodents that are typically found in urban areas.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

No additional energy will be needed for the completed project.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

The project is located at an existing school site and will not affect the use of solar energy by adjacent properties.

- c. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

The completed project will not use energy; therefore, energy conservation measures have not been developed.

7. Environmental Health

- a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.**

As with any construction project, there is the potential for accidental spills of hazardous materials from construction equipment and vehicles. Spilled materials could include fuels, lubricants, solvents, antifreeze, and similar materials. If not contained, these contaminants could enter groundwater or surface water.

Hazardous materials could be encountered during grading and excavation of the site. If present, disturbance of these materials during construction could release hazardous materials to the air or surface and groundwater or could expose construction workers unless proper handling methods are used.

- 1. Describe any known or possible contamination at the site from present or past uses.**

According to the Ecology Facility/Site(s) database (Ecology 2021), the Maple Elementary School site is not known to have contamination from present or past uses.

- a. Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

There are no known existing hazardous chemicals or conditions that would affect project development.

- b. Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

Chemicals stored and used during construction will likely be limited to gasoline and other petroleum-based products required for the maintenance and operation of construction equipment and vehicles.

c. Describe special emergency services that might be required.

The project will not require any special emergency services.

d. Proposed measures to reduce or control environmental health hazards, if any:

Proposed measures to reduce or control environmental health hazards include the following:

- SPS will comply with applicable regulations for the removal and disposal of any hazardous materials if found on-site.
- Site-specific pollution prevention plans, and spill prevention and control plans will be developed to prevent or minimize impacts from hazardous materials.

b. Noise

1. What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

The site receives noise from sources that include traffic from I-5 and arterial streets, as well as overflights associated with Boeing Field and Sea-Tac International Airport. The City of Seattle regulates noise via the Seattle Noise Ordinance (SMC Chapter 25.08). The ordinance sets a limit for exterior sound levels based on land use, establishes quiet hours, and prohibits construction and maintenance activities during certain hours of the day.

2. What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Construction: Construction of the improvements project will generate short-term noise. Construction equipment and vehicles may include track hoes, back hoes, dump trucks, and forklifts.

School Operations: Use of the playfield will be audible to neighbors but is expected to be similar to existing noise levels. Noise sources from elementary schools typically include student voices, school bells, regular vehicular traffic, and building mechanical equipment. Noise during use of outdoor physical space is expected to be similar to existing levels. Noise generally occurs during normal school operating hours.

3. Proposed measures to reduce or control noise impacts, if any.

General measures that may be imposed on the project to reduce or control noise impacts may include the following:

- Construction equipment is maintained in a good condition and equipped with mufflers. If feasible, stay away from noise-sensitive receivers. When equipment is not used, it should be turned off instead of idling.
- Residents in the vicinity of the school should be notified before construction starts.
- Construction activities will be restricted to hours designated by SMC 25.08.425. The Seattle Land Use Code allows construction equipment operations between the hours of 7 a.m. and 10 p.m. on weekdays and 9 a.m. and 10 p.m. on weekends and holidays. Construction will generally occur between 7 a.m. and 5 p.m. on weekdays. Construction at night or on holidays is not currently planned. Weekend construction could occur in some cases.
- If construction activities exceed permitted noise levels, SPS will instruct contractors to implement measures to reduce noise impacts to comply with the noise ordinance, which may include additional muffling of equipment.
- School operations will adhere to the Seattle Noise Ordinance.
- The code further regulates noises considered “unreasonable” including “*loud and raucous, and frequent repetitive or continuous sounds made by the amplified or unamplified human voice*” between the hours of 10 p.m. and 7 a.m. During these hours, the maximum allowable noise from one property to another within residential districts is reduced to 45 Leq (dBA) (i.e., Equivalent Continuous Sound Pressure Level, A-weighted decibels).

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The site is currently used as an elementary school. I-5 is on the west side of the site, to the north is Maple Wood Playfield owned by the City of Seattle Parks Department, and the properties to the south and east are residential.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses because of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?**

The site has been developed as a school since 1971. The site is not used for working farmland or working forest lands.

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how?**

No working forest lands are located near the project site. The project will not affect or be affected by farm operations.

- c. Describe any structures on the site.**

On the site, there is currently an elementary school totaling approximately 28,200 square feet. No changes are proposed to the elementary school structure.

- d. Will any structures be demolished? If so, what?**

No structures will be demolished.

- e. What is the current zoning classification of the site?**

The site is currently zoned as NR3, neighborhood residential (City of Seattle 2021).

- f. What is the current comprehensive plan designation of the site?**

The City of Seattle Comprehensive Plan designation of the site is a "Single Family Residential Area" (City of Seattle 2021a).

- g. If applicable, what is the current shoreline master program designation of the site?**

The project site is not within a shoreline jurisdiction. Therefore, there is no applicable Shoreline Master Program designation (City of Seattle 2021).

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.**

No part of the site is classified as a critical area by the City or County.

i. Approximately how many people would reside or work in the completed project?

The number of people who work at Maple Elementary School is expected to be the same with the completed project.

j. Approximately how many people would the completed project displace?

The completed project will not displace any people.

k. Proposed measures to avoid or reduce displacement impacts, if any.

No displacement is expected; therefore, no mitigation measures are proposed.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

The project is compatible with existing and projected land use. The site will continue to be used as a school, and the existing play areas will be improved.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

The site is not located near any agricultural and forest lands of long-term commercial significance; therefore, no mitigation measures have been developed.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

No housing units will be provided as a result of this project.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

No housing units will be eliminated as result of this project.

c. Proposed measures to reduce or control housing impacts, if any.

No impacts on housing are expected as a result of this project; therefore, no measures are proposed.

10. Aesthetics

- a. **What is the tallest height of any of the proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

There are no proposed structures associated with the playfield improvements.

- b. **What views in the immediate vicinity would be altered or obstructed?**

No views in the immediate vicinity will be altered.

- c. **Proposed measures to control or reduce aesthetic impacts, if any.**

No views will be altered; therefore, no measures are proposed.

11. Light and Glare

- a. **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

The project will not add any additional lighting.

- b. **Could light or glare from the finished project be a safety hazard or interfere with views?**

No lighting is proposed.

- c. **What existing off-site sources of light or glare may affect your proposal?**

No off-site sources of light or glare will affect this project.

- d. **Proposed measures to reduce or control light and glare impacts, if any.**

Impacts from light and glare are not expected; therefore, no measures to reduce or control light and glare impacts have been developed.

12. Recreation

- a. **What designated and informal recreational opportunities are in the immediate vicinity?**

Recreation opportunities on the Maple Elementary School site currently include the existing undeveloped field and existing play structures.

Parks and recreational opportunities in the vicinity of the Maple Elementary School site include the following:

- **Maple Wood Playfield.** Located north of/adjacent to Maple Elementary School at 4801 Corson Avenue S, the City-owned park

includes two baseball fields, a play area with slides and climbing features, open green space, and bathrooms.

- **Jefferson Park.** Located 0.9 mile northeast, the City-owned park includes the Jefferson Park Golf Course, Jefferson Community Center, Jefferson Lawn Bowling, Jefferson Skate Park, and Beacon Mountain. Additional amenities include basketball courts, tennis courts, soccer field, baseball field, picnic sites, spray parks, views, public art, children play area, bathrooms, and water fountains.
- **Beacon Food Forest.** Located 0.9 mile northeast of the project site, adjacent to Jefferson Park, a 7-acre food forest and community-driven garden located on S Dakota Street on City-owned land. Amenities include raised beds, demonstration gardens, giving gardens, honeybees, meeting spaces, orchard, and public art.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No recreational uses will be displaced as a result of this project.

c. Proposed measures to reduce or control impacts on recreation, including recreational opportunities to be provided by the project or applicant, if any.

The project plans include improved outdoor recreation space for the students including the installation of a new synthetic turf playfield with cork infill, a natural learning area, and new play equipment.

13. Historic and Cultural Preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers If so, specifically describe.

There are no recorded buildings, structures, or sites located on the site that are currently listed in the National Register of Historic Places (NRHP), Washington Heritage Register, or Seattle Landmarks List (DAHP 2022, Seattle Department of Neighborhoods 2022).

Directly to the north of the site is Maple Wood Playfield, which is owned by the City of Seattle. The playfield contains three recorded historic resources over 45 years in age: Maple Wood Playfield, Maple Wood Restroom, and Maple Wood Backstops; each was recorded as a separate resource (Scott et al. 2022). The Playfield and Restroom were determined eligible for listing in the NRHP; the Backstops were determined not eligible for listing in the NRHP (DAHP 2022). Parcels fronting the project site to the east along Corson Avenue S and to the south along S Pearl Street include residential buildings constructed between 1911 and 1971

(King County 2022a) and are therefore older than 45 years. The project does not propose direct impacts on any of these adjacent buildings or structures, including Maple Elementary School.

Maple Elementary School is an open-concept school, constructed in 1971 and designed by Durham, Anderson, and Freed (Thompson and Marr 2002). The school is currently 51 years old. To date, no NRHP eligibility recommendation or determination has been made for the school (DAHP 2022). SPS self-nominated the school for review by the Seattle Landmarks Preservation Board (LPB) in 2003 in advance of the addition of the gym and lunchroom. The LPB denied the nomination.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

To date, no archaeological sites, cemeteries, or traditional cultural properties within or adjacent to the project boundaries have been recorded with DAHP (DAHP 2022). SPS contacted the Duwamish Tribal Services Cultural Preservation Department on November 9, 2022 via email to inquire about any specific concerns the Tribe may have regarding unrecorded archaeological resources or other cultural resources at this location, as well as requested information the Tribe would want included in review (Plyler 2022). In the response received on November 16, 2022, the Duwamish Tribal Services Cultural Preservation Department staff commented that the project *“is in an area the Duwamish Tribe considers culturally significant and has a moderate probability to have unknown archaeological deposits, especially if excavation cuts below current fill. The school is located on the bluffs (now Beacon Hill) above the former estuary of the Duwamish river where the Tribe used resources and gained access to a trails between the river and Lake Washington”* (Sackman 2022).

More than 20 cultural resources assessments have been completed within 1 mile of the project site, and there are eight recorded archaeological sites located between 0.14 mile and 1.0 mile of the project site (DAHP 2022). All eight recorded sites are historic-era, and none have been determined eligible for listing in the NRHP.

Two archaeological assessments have been completed immediately adjacent to the project site (Scott et al. 2022; Syvertson et al. 2018). In 2018, an assessment was conducted in advance of drainage improvements and examined Corson Avenue S from S Ferdinand Street to S Dawson Street and a portion of 12th Avenue S; no archaeological resources were recorded (Syvertson et al. 2018). In 2022, an assessment

of the Maple Playfield directly north of the project site was conducted for the proposed improvements (Scott et al. 2022). As noted in Question B.13a, three historic resources were identified and recorded: Maple Wood Playfield, Maple Wood Restroom, and Maple Wood Backstops. The Playfield and Restroom were determined eligible for listing in the NRHP; the Backstops were determined not eligible for listing in the NRHP (DAHP 2022).

The project location is classified in the Washington State Department of Archaeology and Historic Preservation (DAHP) Statewide Predictive Model as a range of Very High, High, and Moderate Risk for containing precontact-era cultural resources (DAHP 2022). However, there are no recorded archaeological sites with Indigenous components within 1 mile of the project site.

Maple Elementary School is located within the ancestral lands of the Duwamish people, whose traditional language is Southern Lushootseed and who are part of a larger cultural group known generally as the Southern Coast Salish people (Lane 1975a; Suttles and Lane 1990). The Southern Coast Salish group encompasses the Duwamish Tribe, Snoqualmie Indian Tribe, Suquamish Tribe, and Tulalip Tribes, and additional groups in the Puget Sound region whose ancestral lands were primarily farther from the project site: the Puyallup, Nisqually, and Squaxin people (Suttles and Lane 1990). The memberships of the Snoqualmie Indian Tribe, Suquamish Tribe, Muckleshoot Indian Tribe, and Tulalip Tribes include successors of the Duwamish at the time of the 1855 Treaty of Point Elliott (Lane 1974, 1975b, 1988; Miller and Blukis Onat 2004:24-25, 56-108; Muckleshoot Indian Tribe 2022; Suquamish Tribe 2015). The Duwamish Tribe, Snoqualmie Indian Tribe, and Suquamish Tribes have been in the Puget Sound region since time immemorial; this is also supported by archaeological evidence within the region (Duwamish Tribal Services 2018; Kopperl et al. 2016; Snoqualmie Indian Tribe 2020; Suquamish Tribe 2015).

Today's Beacon Hill landform is known in Lushootseed as *qWátSéécH* or Greenish-Yellow Spine, in reference to the colors of the hillside's deciduous trees, which consisted of maples, alders, and other deciduous trees (Thrush 2007:230, map no. 38; U.S. Surveyor General 1861). No places with Lushootseed names are known to exist directly within the project site (Hilbert et al. 2001; Thrush 2007; Waterman 1922). Named places are documented approximately 0.50 mile west of the project along the base of today's Beacon Hill and the original banks and mouth of the Duwamish River. Approximately 2 miles south of the project site was a trail over Beacon Hill leading between the Duwamish River and Lake Washington shoreline (Thrush 2007:246).

The project site is approximately 0.30 mile east/southeast of the former Road from Steilacoom to Seattle, also known as the Old Military Road, and a trail once connected with the road approximately 0.90 mile northeast of the project; both are depicted on an 1861 survey map (U.S. Surveyor General 1861). The connecting trail led east to today's Seward Park on Lake Washington. The project site is within the Luther M. Collins land claim, who was one of the earliest non-Indigenous residents of the area; Collins lived west of the project site, at the base of the hill along on the banks of the Duwamish River (Bagley 1916).

Prior to construction of the school, historical maps and aerial photographs document the project site as residential with dwellings present since at least 1908 (Baist Map Company 1908, 1912; Kroll Map Company 1920; NETROnline 2022; Pacific Aerial Surveys 1937; Sanborn Fire Insurance Company 1917). The project site was annexed by the City in 1921 (Phelps 1978:222).

Beginning in the late 1960s, the Seattle School District petitioned the City to vacate utilities and streets within the project site under City Ordinances 98664 and 102506 (Seattle Public Utilities 1951). Site surveys prepared in 1968 for school construction document multiple remnant foundations across the project site at the time of project start (Durham, Anderson, Freed 1970). A 1972 survey of the southern portion of the project site (today's playfield) recorded numerous remnant landscaped plantings (e.g., hedges, fruit trees, and holly bushes) across the area (Seattle Public Schools 1972). In 1971, Maple Elementary School opened (Thompson and Marr 2002).

Beacon Hill, on which the project site is situated, is a glacial drumlin unlikely to have experienced substantial natural deposition since the end of the last Ice Age. As a result, past cultural traces, if deposited, would have tended to remain at ground surface or become shallowly mixed into the topsoil. A preliminary review of archival resources, a preconstruction topographical survey of the proposed school site in 1968 and 1970 (Durham, Anderson, Freed 1970) and six geotechnical test holes in 1969 (presented in Durham, Anderson, Freed 1970) indicated that the school grounds (prior to school construction) had approximately 1 to 2 feet of "brown silty organic topsoil" overlying "grey-brown dense clayey silt." The clayey silt is interpreted as likely Lawton clay, deposited during recessional glaciolacustrine conditions (Mackin et al. 1950), and the topsoil likely consisted of a mixture of imported material and native soil. Based on the age and environment of deposition, strata of Lawton clay would not be expected to contain buried archaeological sites. An additional 14 geotechnical borings and five hand augers performed in 2003 and 2004 in advance of school additions (Krazan and Associates 2003, 2004) illustrate stratigraphic changes on the school grounds likely

caused by site preparation for original school construction. Significantly, 10 of the 19 recent tests noted the presence of glacial-aged matrix directly at ground surface, while seven noted glacial-aged material directly beneath 1.5 to 9 feet of fill. This implies that site preparation for construction of the original school involved stripping of topsoils across the property with substantial upslope cutting, followed by backfilling where needed. A series of flattened and stepped ground surfaces can be readily discerned on LiDAR imagery (King County 2022c). Because site preparation for original school construction appears to have removed the topsoil, the potential for the project site to contain intact archaeological sites appears low.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.**

The following information was reviewed: previous archaeological survey reports (DAHP 2022); historical maps (Baist Map Company 1908, 1912; Bortleson et al. 1980; Kroll Map Company 1920; McKee and Reynolds 1894; U.S. Surveyor General 1861, 1863); government landowner records (U.S. Bureau of Land Management 1995); aerial photographs (NETROnline 2022; Pacific Aerial Surveys 1937); published ethnographies and regional histories (Bagley 1916; Burke Museum 2019; Duwamish Tribal Services 2018; Hilbert et al. 2001; Kopperl et al. 2016; Lane 1975a, 1975b; Snoqualmie Indian Tribe 2020; Thompson and Marr 2002; Thrush 2007; Waterman 1922); and geological maps and reports (Durham, Anderson, Freed 1970; King County 2022b). In addition, Seattle Public Schools consulted with the Duwamish Tribal Services Cultural Preservation Department (Plyler 2022; Sackman 2022) and the Seattle Department of Neighborhoods Landmarks Preservation Board staff (Doherty 2022).

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.**

Because the project is expected to occur within placed fill and glacial deposits with a low potential for intact archaeological sites, Environmental Science Associates (ESA) is not recommending a preconstruction subsurface archaeological survey or archaeological monitoring during construction. The Duwamish Tribal Services Cultural Preservation Department provided the following comments recommendations: *“An IDP should not be used in lieu of an archaeological investigation. However, based on the boring logs provided in the geotechnical report [Durham, Anderson, Freed 1970; King County 2022b],*

the Tribe recommends that an archaeologist be present to monitor (inadvertent discovery plan) when excavating starting from depths below current fill to about 10 feet below ground surface (bgs) and especially in soil lenses that include organics. Cultural and archaeological resources are non-renewable and are best discovered prior to ground disturbance. In addition, the Tribe supports native plants for proposed landscaping” (Sackman 2022).

SPS has prepared an archaeological resources Inadvertent Discovery Plan for use during project construction and will ensure that the contractor receives cultural resources orientation prior to beginning ground disturbance.

SPS will notify the Duwamish Tribe, Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Suquamish Tribe, and Tulalip Tribes in advance of construction, and invite them to observe the work. At all times during construction, state laws regarding cultural resources, including Archaeological Sites and Resources (RCW 27.53), Indian Graves and Records (RCW 27.44), Human Remains (RCW 68.50), and Abandoned and Historic Cemeteries and Historic Graves (RCW 68.60), are in force if archaeological sites or human remains are discovered. Based on the result of the analysis, measures to avoid, minimize, or compensate for the loss of, changes to, and disturbance to resources will be determined based on the nature, location, and potential impacts on any archaeological resource.

Seattle Public Schools contacted LPB staff on October 24, 2022 to review the current project. On November 10, 2022, LPB staff stated they were *“not concerned about impacts from the proposed south end work because it so far from the historic building, and there is another building in between these two areas. The north end work seems like minor alterations to the existing outdoor play area, as necessary for security, maintenance, and small-scale programmatic improvements. I do not think they will adversely impact the historic property in any way”* and that *“while we agree that it [the proposed work] exceeds the threshold for referral, we do not feel that additional review is required beyond what we have just completed. If in the future the building is proposed for demolition, or major alterations (addition) that exceed the SEPA referral threshold, we think we would likely request an Appendix A document, in light of the Board’s previous review of the property and extensive alterations that have already occurred”* (Doherty 2022).

14. Transportation

- a. **Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.**

The existing Maple Elementary School is bounded on the north by Maple Wood Playfield, on the east by Corson Avenue S, on the south by S Pearl Street, and on the west by I-5 (see Figure 1, Vicinity Map).

- b. **Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

King County Metro Transit (Metro) provides bus service along 15th Avenue S. Route 60 and Route 107 have a stop at 15th Avenue S and S Shelton Street 0.3 mile away. Route 124 has a stop approximately 0.7 mile away at Airport Way S and S Lucile Street.

- c. **Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

The project will not require any new roads or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities.

- d. **Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

The project will not use or occur in the immediate vicinity of water, rail, or air transportation.

- e. **How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?**

The completed project will not generate additional vehicular trips. During construction, approximately 100 to 150 truck trips are expected for product delivery and hauling.

- f. **Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

The project will not interfere with the movement of agricultural or forest products on streets in the area because no agricultural or working forest lands are located within the vicinity of the project site.

g. Proposed measures to reduce or control transportation impacts, if any.

There are no adverse impacts on the transportation system in the site vicinity; therefore, no mitigation measures are proposed.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

Construction and implementation of the project will not result in an increased need for public services.

b. Proposed measures to reduce or control direct impacts on public services, if any.

Local public service providers will be made aware of any potential roadway impacts that could adversely affect response times during construction. If public streets are blocked, transportation plans will be prepared and include provisions to maintain emergency service access.

16. Utilities

a. Underline utilities currently available at the site:

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other: _____

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

No changes to utilities are proposed as a part of this project.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

X *Conrad Plyler*

Type name of signee: Conrad Plyler, PLA

Position and agency/organization: Project Manager, Seattle Public Schools.

Date submitted: February 17, 2023

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FIGURES



SOURCE: Basemap: ESRI; Parcels: King County, 2021; ESA, 2022

SPS Maple Elementary School

Figure 1
Vicinity Map



WEISMANDESIGNGROUP
 LANDSCAPE ARCHITECTURE
 2339 E MADISON ST
 SEATTLE WA 98112
 206-322-1732
 WWW.WDNG.COM

SEATTLE SCHOOL DISTRICT
**MAPLE ELEMENTARY SCHOOL
 PLAYFIELD IMPROVEMENTS**



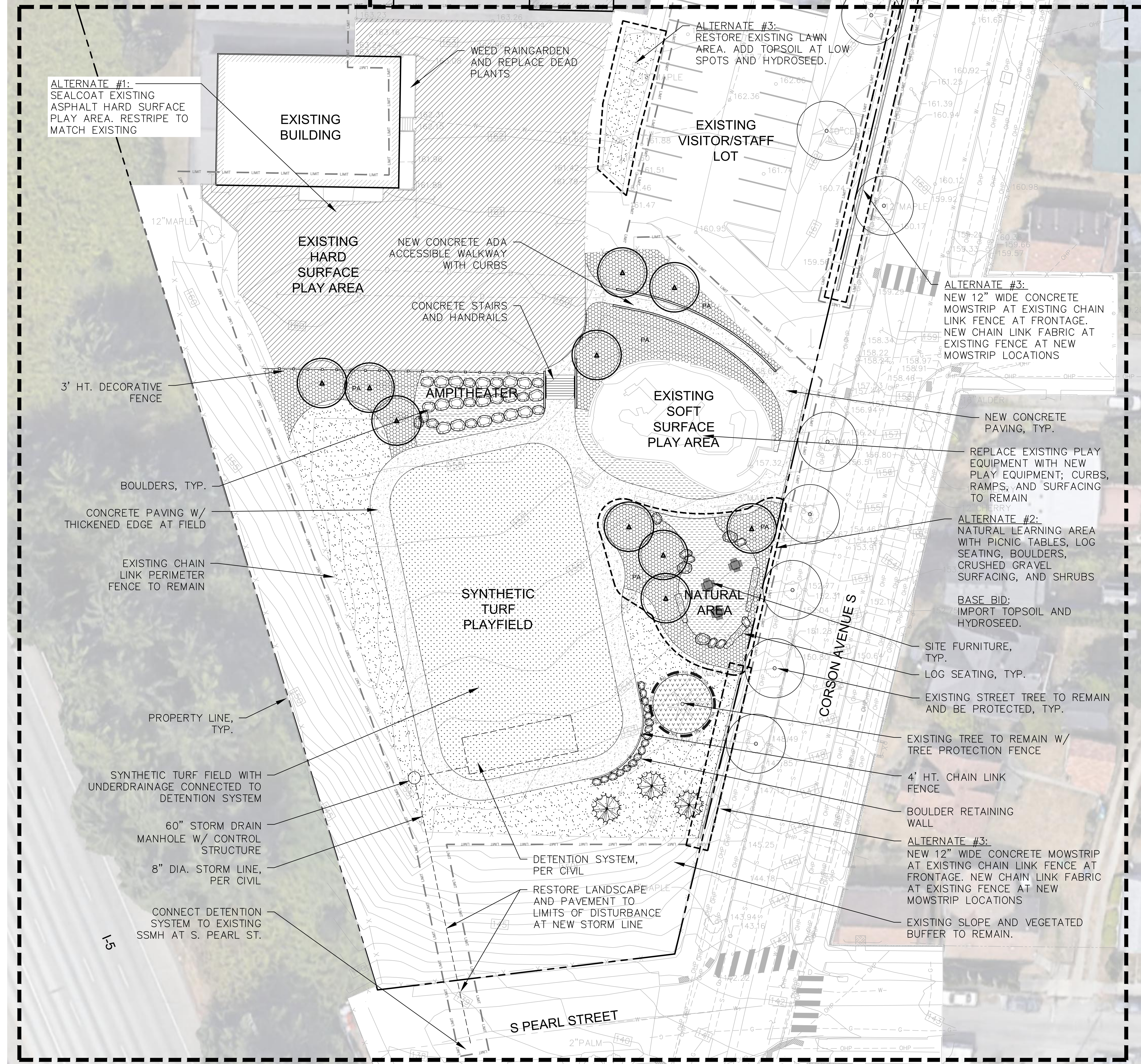
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REVISIONS:
 SEPA 7/15/2021
 PRE-APP 9/9/2022

SITE PLAN
 ENLARGEMENT

L1.01

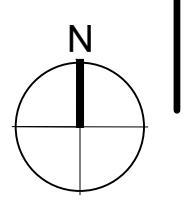
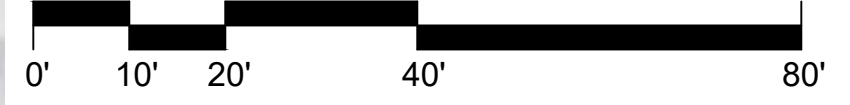
NOTE: ORIGINAL DRAWING SIZE 34"x22" DO NOT RESCALE



LAYOUT PLAN - LEGEND

ITEM	DESCRIPTION
	PEDESTRIAN CONCRETE PAVING
	ASPHALT PAVING
	ASPHALT SEALCOAT
	SYNTHETIC TURF
	CRUSHED GRAVEL
	PLANTING AREA
	PLANTING AREA
	PLANTING AREA
	3' HT. DECORATIVE FENCE
	4' HT. CHAIN LINK FENCE
	LIMITS OF CONSTRUCTION
	EXISTING TREES TO REMAIN AND BE PROTECTED. SEE TREE PROTECTION PLAN FOR REQUIREMENTS
	TEMPORARY TREE PROTECTION AREA DURING CONSTRUCTION

SCALE: 1"=20'-0"





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SEATTLE SCHOOL DISTRICT
**MAPLE ELEMENTARY SCHOOL
 PLAYFIELD IMPROVEMENTS**



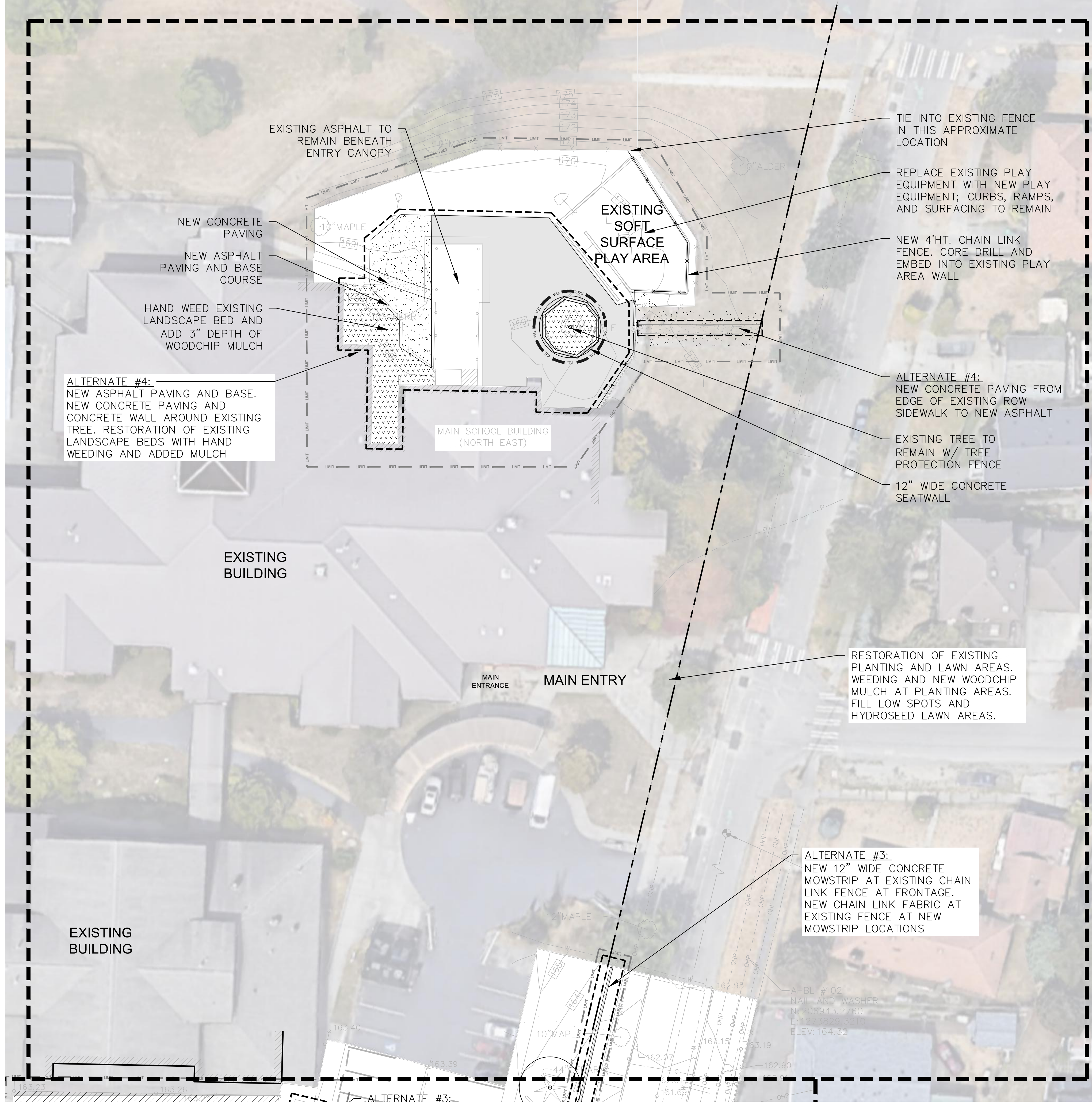
SCALE AS SHOWN
 DATE 9/9/2022
 DRAWN WS
 CHECKED AR
 PERMIT # xxxxxxxxxxxx
 BID NUMBER xxxxxxxxxxxx

REVISIONS:
 SEPA 7/15/2021
 PRE-APP 9/9/2022

SITE PLAN
 ENLARGEMENT

L1.02

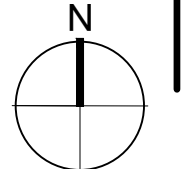
NOTE: ORIGINAL DRAWING SIZE 34"x22" DO NOT RESCALE



LAYOUT PLAN - LEGEND

ITEM	DESCRIPTION
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APPENDIX A
GREENHOUSE GAS EMISSIONS WORKSHEET



Section I: Buildings

Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Emissions Per Unit or Per Thousand Square Feet (MTCO2e)			Lifespan Emissions (MTCO2e)
			Embodied	Energy	Transportation	
Single-Family Home.....	0		98	672	792	0
Multi-Family Unit in Large Building	0		33	357	766	0
Multi-Family Unit in Small Building	0		54	681	766	0
Mobile Home.....	0		41	475	709	0
Education		0.0	39	646	361	0
Food Sales		0.0	39	1,541	282	0
Food Service		0.0	39	1,994	561	0
Health Care Inpatient		0.0	39	1,938	582	0
Health Care Outpatient		0.0	39	737	571	0
Lodging		0.0	39	777	117	0
Retail (Other Than Mall).....		0.0	39	577	247	0
Office		0.0	39	723	588	0
Public Assembly		0.0	39	733	150	0
Public Order and Safety		0.0	39	899	374	0
Religious Worship		0.0	39	339	129	0
Service		0.0	39	599	266	0
Warehouse and Storage		0.0	39	352	181	0
Other		0.0	39	1,278	257	0
Vacant		0.0	39	162	47	0

Section II: Pavement.....

Pavement.....		5.58				279
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Total Project Emissions:

279

Data entry fields

APPENDIX B
RESPONSE TO PUBLIC COMMENTS

Maple Elementary School Field Improvements Project SEPA Public Comments and Seattle Public Schools Responses

SEPA regulations recommend that public comments on Draft Checklists be considered and responded to but provides flexibility in how the comments are presented. The comment period on the Draft SEPA Checklist for the Maple Elementary School Field Improvements Project was from December 16, 2022 to January 16, 2023. Four comment letters, emails, or fax were received from the four individuals listed below.

1. Ms. Jessica Smartt Silvia (via email January 2, 2023)
2. Ms. Maria Herman (via email January 2, 2023)
3. Mr. Chris Jackins (via fax January 15, 2023)
4. Ms. Megan Slade (via email January 16, 2023)

For efficiency, the comments have been summarized and similar comments have been grouped together and responded to below. Following each comment, the numbers in brackets refer to the commenter number (above) who submitted a similar comment. Any person interested in reading the individual comments may contact SPS for access to them.

1. **Date Prepared.** The Checklist does not list a specific “Date checklist prepared”, only citing “December 2022”. [Commenter 3]

Response: The date on the Draft SEPA checklist is December 2022.

2. **Description of Proposal.** The proposed project is funded by “a capital improvement grant from the City of Seattle” and will include a new synthetic turf playfield with a concrete perimeter jogging path, installation of a new amphitheater, new benches, new picnic tables, a natural learning area, and a new play equipment at the existing play area. New tree and shrub plantings will occur at landscape areas.” [Commenter 3]

Response: Comment acknowledged.

3. **Square Feet.** The Checklist states that “The lawn of approximately 16,500 feet would be replaced with a synthetic turf field”. Feet should be in square feet. The square footage does not seem to match the sum of citations at B.2.a to 5,578 square feet of concrete, 3,027 square feet of gravel, and 9,529 square feet of synthetic turf. [Commenter 3]

Response: The document contained a typographical error and the area has now been corrected to state square feet in the Final SEPA Checklist. The descriptions in question B.2.a and B.4.b have been revised to provide greater clarity as to the amount of impervious surfaces being added, the amount of proposed synthetic turf, and the amount of lawn area being removed.

4. **Site Size.** The total school site is 6.74 acres, and the construction area is 0.85 acres. “Approximately 58 percent of the 0.85-acre project will be covered with impervious surfaces, including artificial turf and asphalt, after project construction.” [Commenter 3]

Response: The total school property size is roughly 6.74 acres. The proposed field improvements will occur on approximately 0.85 acre of the site. Of the 0.85-acre field improvement area, an estimated 57 percent (or roughly 21,200 square feet) will be impervious surfaces which include the synthetic turf, concrete, gravel, and asphalt areas.

5. **Synthetic Turf impacts on Human Health.** Can you please share what considerations have been done related to human health impacts of synthetic turf on children and staff who will be using it? Is there a list of the materials being used and efforts to reduce toxic material associated with synthetic turf, such as using cork instead of rubber underneath the turf? Or attempting to source turf that does not contain PFA’s/VOCS/benzene/heavy

metals/carcinogens? Every effort to make this change as healthy as possible for everyone is greatly appreciated. [Commenter 4]

What materials would underlay the plastic grass? Ground up tires? Cork? [Commenter 3]

Synthetic turf at some other sites such as Ballard High School has lasted perhaps 20 years. It's not clear that the calculations have considered the loss of CO2 absorbing natural grass. [Commenter 3]

Response: The synthetic turf field will have a sand underlay with cork infill. The synthetic turf industry is aware of per- and polyfluoroalkyl substances (PFAS) concerns and is voluntarily testing their products for PFAs. The proposed synthetic turf will be sourced from a company with minimal PFAS in the bid process. The SEPA checklist notes that the synthetic field will have a cork infill and not the older standard of tire rubber crumb (TRC) that is associated with emission of volatile organic compounds, leaching heavy metals and other contaminants to water, and a large GHG footprint. The cork infill is often derived from the bark of cork trees and does not require that the trees be felled for production. Additionally, the cork is natural and non-toxic, with the primary disadvantages being that it may degrade slightly over time, it can compact a bit, and may serve as home to some insects.

While lifecycle assessments of synthetic turf fields with cork infill are not readily available, the magnitude of the emissions are expected to be well below that of a TRC turf. Lifecycle emissions from a TRC turf are primarily from the production (e.g., oil and gas industry contributions) and disposal phases of the product's life. For cork, the primary source of GHG emissions are expected to be in product handling and transport which would occur regardless of turf type. The proposed cork turf field is not expected to cause a significant increase in the field's overall GHG footprint.

The industry standard for synthetic turf replacement is every 10 to 12 years.

The SEPA checklist notes that gravel, synthetic turf, asphalt, and the removal of grass are not considered in the Greenhouse Gas Worksheet. The use of a synthetic turf field will not result in emissions from lawn mowing and maintenance that occurs with a grass field.

- 6. Field Drainage.** As it current(ly) stands, Maple Elementary frequently has to close the field in the winter due to excessive rain and the field turning into a pit of mud. It's clear based on the plan that the district will not be installing turf, which would solve this problem. Are there intentional plans for drainage so that the field will be usable year-round. [Commenter 2]

Response: The proposal for the site is to replace the existing lawn with synthetic turf with a sand underdrain and cork infill. The site plan attached to the Final SEPA checklist shows a synthetic turf play field with under drainage. The purpose of installing a synthetic turf field is to allow year-round access and eliminate issues due to rain.

- 7. Water Bodies.** The Checklist states that "the nearest surface water bodies include: The Duwamish Waterway approximately 0.9 mile to the west and an unnamed stream

approximately 0.8 mile to the southeast”. Is the stream unnamed, or is the name unknown?
[Commenter 3]

Response: The stream is unnamed. It can be identified using Permanent Identifier 165398883. It runs through Maple School Ravine.

8. **Covered Area.** A large covered area that allow(s) light is needed. This can serve many necessary purposes. Cover area for evacuation drill, outdoor recess when weather is not optimal, teaching area. Our city is filled with rain more months than not and yet we don't have a single area where our students, staff, etc. can be gathered outdoors under cover. Please consider this a necessity in planning. [Commenter 1]

Response: This comment will be passed on for consideration in future projects. A covered canopy which allows light is not part of the current scope or funding for this project. There is an existing covered entry canopy on the north side of the school.

9. **Joint Use Agreements.** The noise and transportation impact sections do not seem to reference impacts from the agreements for joint use scheduled by the City Parks Department which would likely involve newly generated adult use of the site, which is funded by the city. B.12.c only references “recreation space for the students”. [Commenter 3]

Response: This field is intended for school and neighborhood use only. Adult use of the site is not likely due to the small size of the playfield which is inadequate for adult games or practices.

10. **Inadvertent Discovery Plan.** Section B.13 cites extensive comment from the Duwamish Tribe, including that the project “is in an area the Duwamish Tribe considers culturally significant and has a moderate probability to have unknown archaeological deposits” [B.13.b, page 18] and that “An IDP [Inadvertent Discovery Plan] should not be used in lieu of an archaeological investigation”, yes? The District did not seem to explicitly reply to this statement, but it seems that the District in fact is planning to do what the Duwamish Tribe asked the District NOT to do: use an IDP “in lieu of an archaeological investigation”, yes? The City (and School District) names for a Duwamish Chief should not fund a project if the project will ignore this input from the Duwamish Tribe. [Commenter 3]

Response: As noted in question 13.d, because the project is expected to occur within placed fill and glacial matrix with a low potential for intact archaeological deposits, ESA is not recommending a preconstruction subsurface archaeological survey or archaeological monitoring during construction. SPS has prepared an archaeological resources Inadvertent Discovery Plan (IDP) for use during project construction and will ensure that the contractor receives cultural resources orientation prior to beginning ground disturbance. The preparation of an IDP is not a replacement for an archaeological study, and based upon our investigations, it is highly unlikely that resources are present due to the previous grading that has occurred at the site.

SPS will notify the Duwamish Tribe, Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Suquamish Tribe, and Tulalip Tribes in advance of construction, and invite them to

observe the work. At all times during construction, state laws regarding cultural resources will be followed.

- 11. Environmental Impact Statement Request.** The District should issue a Determination of Significance (DS) for the project and provide further detailed environmental review through an Environmental Impact Statement (EIS). I believe this project has probable significant adverse environmental impacts, and therefore SEPA regulations require a DS and an EIS. [Commenter 3]

Response: Preparing a SEPA Checklist is the first step in determining the significance of impacts. The SPS SEPA Responsible Official is reviewing the SEPA Checklist and taking all comments received on the Draft SEPA Checklist into consideration in making a determination of the significance of impacts from the Maple Elementary School Field Improvements Project.

- 12. Comment Period.** The due date for comments is a holiday (Monday, January 16, 2023). [Commenter 3]

Response: After the comment period was published, SPS realized that the comment period lasted for 31 days and ended on a holiday. SPS did not receive any comments after the due date. A comment period is not required for a SEPA checklist.

- 13. Signature.** The Checklist in section “C. Signature” does not show a signature or list a name for “name of signee”. [Commenter 3]

Response: SPS does not typically sign Draft SEPA checklists. The Final SEPA checklist will be signed and dated.