Van Asselt School Athletic Field Lighting Project

Draft SEPA Checklist

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

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While the Van Asselt School Athletic Field Lighting Project Draft 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 – Van Asselt School Site Vicinity Map, Seattle, Washington
  Figure 1 is a vicinity map that shows the Van Asselt School campus and the surrounding neighborhood in the site vicinity. The school campus site is outlined in blue on the map and the athletic field lighting site area is outlined in red.

- Figure 2 – Van Asselt School Aerial Map, Seattle, Washington
  Figure 2 is an aerial map of the Van Asselt School campus and the surrounding neighborhood in the site vicinity. The school campus area is outlined in blue on the map and the athletic field lighting site area is outlined in red.

- Figure 3 – Proposed Site Plan, Seattle, Washington
  Figure 3 is a site plan of the proposed project. The existing athletic field is shown, and the proposed field lighting pole locations are indicated on the plan and numbered S1 to S4. There is also a schedule listing the poles, heights, number of floodlights, number of ball tracking lights, and number of area lights.

- Appendix A – Construction Best Management Practices
  Appendix A consists of construction best management practices that could be implemented during the construction of the project.

- Appendix B – Noise Assessment
  Appendix B consists of the Noise Assessment that was prepared by Landau Associates, dated April 6, 2023. This report documents existing noise conditions and analyzes potential noise that would be anticipated to be generated with the development of the proposed project. The report includes tables which organize noise measurement data that illustrate the report's findings. Attachment 1 – Sound Level Measurement (SLM) Location Figures. Figure 1-1 shows an aerial view of the Van Asselt School athletic field and its surrounding area showing the two locations where noise measurements were taken. Figure 1-2 shows an aerial view of the Brighton School athletic field and its surrounding area showing the one location where noise measurements were taken.

- Appendix C – Light and Glare Report
  Appendix C consists of the Light and Glare Report that was prepared for the project by Stantec, dated April 17, 2023. The report identifies existing light and glare on the site and surrounding area, describes the proposed field lighting system, and analyzes potential glare, light spillage and sky glow that could be generated with the proposed project. The report includes photographs to illustrate and support discussions in the text portion of the report.

- Appendix D – Cultural Resources Assessment Report
  Appendix D consists of the Cultural Resources Assessment Report for the project that was prepared by Perteet, dated April 10, 2023. The Cultural Resources Assessment Report details the background research and previous onsite investigations that were completed on the school campus and provides recommendations for the project. Due to the confidential nature of archaeological materials discussed in the report, a full copy of the report is not included in this electronic version. However, a non-confidential version of the report is available upon request from Seattle Public Schools.

- Appendix E – Transportation Technical Report
  Appendix E consists of the Transportation Technical Report for the project that was prepared by Heffron Transportation, Inc., dated April 7, 2023. The report provides a description and analysis of background transportation conditions for the area surrounding the site, including traffic volumes, traffic operations (level of service), parking, transit, and non-motorized facilities. The report analyzes and addresses potential impacts with the proposed project on those same transportation conditions and provides recommendations. Attached to the end of the report are Appendix A – Level of Service Definitions, and Appendix B – Parking Utilization Study Data. There are figures and tables throughout this document, including in the Appendices, which graphically depict and organize data to support the findings in the report.

This concludes the description of the Draft SEPA Checklist figures and appendices for the Van Asselt School Athletic Field Lighting Project.

DRAFT ENVIRONMENTAL CHECKLIST

for the proposed

Van Asselt School Athletic Field Lighting Project

prepared by

SEATTLE PUBLIC SCHOOLS

April 2023

EA Engineering, Science, and Technology, Inc., PBC
Landau Associates
Stantec
Perteet
Heffron Transportation, Inc.

PREFACE

The purpose of this Draft Environmental Checklist is to identify and evaluate probable environmental impacts that could result from the ***Van Asselt School Athletic Field Lighting Project*** and to identify measures to mitigate those impacts. The ***Van Asselt School Athletic Field Lighting Project*** is new lighting at the existing athletic field to allow for expanded use of the field. The proposed project would consist of four, approximately 70-foot tall lighting poles and associated mountings that would illuminate the existing field and track. The galvanized steel lighting poles would be located near each of the four corners of the athletic field and each of the poles would contain shielded LED floodlights mounted to the top of the poles.

The State Environmental Policy Act (SEPA)[1] requires that all governmental agencies consider the environmental impacts of a proposal before the proposal is decided upon. This Draft Environmental Checklist has been prepared in compliance with the State Environmental Policy Act; the SEPA Rules, effective April 4, 1984, as amended (Chapter 197-11, Washington Administrative Code); and the Seattle City Code (25.05), which implements SEPA.

This document is intended to serve as SEPA review for site preparation work, building construction, and operation of the proposed development comprising the ***Van Asselt School Athletic Field Lighting Project.*** Analysis associated with the proposed project contained in this Environmental Checklist is based on plans for the project, which are on-file with Seattle Public Schools. While not construction-level detail, the plans accurately represent the eventual size, location and configuration of the proposed project and are considered adequate for analysis and disclosure of environmental impacts.

This Environmental Checklist is organized into three major sections. *Section A* of the Checklist (starting on page 1) provides background information concerning the *Proposed Action* (e.g., purpose, proponent/contact person, project description, project location, etc.). *Section B* (beginning on page 5) contains the analysis of environmental impacts that could result from implementation of the proposed project, based on review of major environmental parameters. This section also identifies possible mitigation measures. *Section C* (page 31) contains the signature of the proponent, confirming the completeness of this Environmental Checklist.

Appendices to this Environmental Checklist include: the Noise Assessment *(Landau Associates, 2023)*, the Light and Glare Report *(Stantec, 2023)*, the Cultural Resources Assessment (*Perteet, 2023*), and the Transportation Technical Report (*Heffron Transportation, Inc., 2023*).

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[1] Chapter 43.21C. RCW

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SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization, or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. **You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown.** You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to **all parts of your proposal,** even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for lead agencies

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B, plus the Supplemental Sheet for Nonproject Actions (Part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in "Part B: Environmental Elements" that do not contribute meaningfully to the analysis of the proposal.

A. Background

1. Name of proposed project, if applicable:

Van Asselt School Athletic Field Lighting Project

2. Name of applicant:

Seattle School District No. 1 (Seattle Public Schools)

3. Address and phone number of applicant and contact person:

Conrad Plyler
Project Manager
Seattle Public Schools
2445 3rd Avenue S
Seattle, WA 98134
206-252-0662

4. Date checklist prepared:

April 19, 2023

5. Agency requesting checklist:

Seattle School District No. 1
2445 – 3rd Avenue South
MS 22-332, P.O. Box 34165
Seattle, WA 98124-1165

6. Proposed timing or schedule (including phasing, if applicable):

The ***Van Asselt School Athletic Field Lighting Project*** that is analyzed in this Draft Environmental Checklist involves site preparation work, construction, and operation of the project. Site preparation and construction could begin in summer 2024 with operation in fall 2024.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No future plans for further development of the project site are proposed at this time.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

The following environmental information has been prepared for the project and is included as appendices to this Checklist:

- *Noise Assessment* (Landau Associates, April 6, 2023);
- *Light and Glare Report* (Stantec, April 17, 2023);
- *Cultural Resources Assessment* (Perteet, April 10, 2023)[2];
- *Transportation Technical Report* (Heffron Transportation, April 6, 2023)

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.

Construction is currently ongoing for prior project on the site that includes the a building addition and renovation to the existing building. There are no known other applications that are pending approval for the ***Van Asselt School Athletic Field Lighting Project*** site.

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

City of Seattle
Department of Construction and Inspections -- permits/approvals associated with the proposed project, including:

- Master Use Permit and Special Exception for Lighting Pole Height
- Building Permit
- Electrical Permits

11. Give a 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.

The proposed ***Van Asselt School Athletic Field Lighting Project*** would install new fielding lighting at the existing Van Asselt School Athletic Field which is located in the western portion of the school campus. The school campus is located at 7201 Beacon Avenue S, in the South Beacon Hill neighborhood of Seattle (see **Figure 1** and **2**).

The proposed lighting would allow for extended use of the field in the late fall, winter, and early spring by Seattle Public Schools, as well as Seattle Parks and Recreation, and other community groups. Informal use of the field would also continue to be permitted during times when scheduled activities are not taking place.

[2] On-file with Seattle Public Schools.

Existing Site

The existing Van Asselt School Athletic Field is comprised of a synthetic turf field that is surrounded by a narrow, rubberized running track. Historically, the athletic field has been utilized by the school for recreation activities and as part of their physical education programs and athletic programs. Pursuant to the recently approved joint-use agreement (JUA) between Seattle Public Schools and Seattle Parks and Recreation, Seattle Public School-identified fields are prioritized for school athletic programs on weekdays after school until 7:00 PM throughout the school year. On Saturdays, this priority continues for school programs from 8:00 AM to 12:00 PM; middle school activities have Saturday priority from 8:00 AM to 4:00 PM. In accordance with the joint-use agreement, Seattle Parks and Recreation and other community organizations have also historically used the athletic field for soccer, football, and ultimate practices and games for a variety of age levels.

Currently, the athletic field is closed due to the existing construction activities associated with a separate project on the Van Asselt School campus.

The site currently includes onsite parking in two existing parking lots, both accessed from S Myrtle Street. A total of 67 parking spaces are included within these onsite parking lots. With the completion of the current construction of the Van Asselt School Addition Project, the site would have 68 onsite parking spaces (59 spaces in the northwest lot, 3 spaces in the northeast lot, and 6 spaces in a new southeast lot).

Proposed Project

The proposed ***Van Asselt School Athletic Field Lighting Project*** would provide new field lighting at the site to allow for expanded use of the field for the school, particularly during the late fall, winter, and early spring. In addition, lighting is being installed to meet the purposes of the current joint-use agreement between Seattle Public Schools and Seattle Parks and Recreation to increase youth and community access to Seattle Public Schools facilities, increase student access to Seattle Parks and Recreation facilities, and encourage third-party recreational activities involving Seattle Public Schools and Seattle Parks and Recreation.

The proposed project would consist of four, approximately 70-foot tall lighting poles and associated mountings that would illuminate the existing field and track. The galvanized steel lighting poles would be located near each of the four corners of the athletic field and each of the poles would contain shielded LED floodlights mounted to the top of the poles; one additional floodlight would be mounted on each pole at approximately 15 feet above grade and aimed above the field. The two poles on the east side of the field would also include one additional low wattage full cutoff area light that would be mounted at approximately 30 feet above grade (see **Figure 3** for site plan of the proposed lighting poles). The proposed lighting design would meet the requirements for a Class IV level of play which is the lowest recommended level listed by the Illuminating Engineering Society of North America. The field is designed to an average maintained lighting level of 29-foot candles and the lighting system is designed using a 0.95 design factor to achieve initial lighting levels. These lighting design levels meet current practices for the City of Seattle

and Seattle Public Schools and would be consistent with recently lighted fields at Whitman Middle School and Jane Addams Middle School.

With the completion of the project, historic uses of the field would continue from Seattle Public Schools, Seattle Parks and Recreation and other community organizations, including school-related athletic programs, as well as soccer, football, and ultimate practices and games for a variety of age levels from Seattle Parks and Recreation and other community organizations. Lighting of the field would also allow for increased use by these activities, as well as potential future use for high school and middle school soccer practices (and potential junior varsity games), high school Ultimate practices and games, high school girls flag football practices and games, and temporary use by Rainier Beach High School football, soccer and Ultimate programs during the renovation of that school.

Field usage between Seattle Public Schools and the City of Seattle Parks and Recreation Department would continue to occur in accordance with the JUA and evening use of the field would be consistent with City of Seattle Parks and Recreation Department Policy #060-P7.1.1. Policy #060-P7.1.1 allows for athletic activities to occur until 10:45 PM and lighting to be operational until 11:00 PM, except on fields where residences are located on two or more sides (unless residences are separated by arterials, significant topography, and/or other buffers). For fields that have residences adjacent on two or more sides, field activities are allowed until 9:45 PM and lighting is allowed to be operational until 10:00 PM. The Van Asselt School Athletic Field has residences adjacent to the northwest and south boundary of the site and these residences are not separated by arterial streets or other buffers. As a result, field activities could occur until 9:45 PM and the proposed lighting could be operational until 10:00 PM, consistent with Policy #060-P7.1.1.

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 Van Asselt School campus is located at 7201 Beacon Avenue S within Seattle's South Beacon Hill neighborhood (a portion of the SE Quarter of Section 28, Township 24, and Range 4). The school campus is generally bounded by S Myrtle Street to the north, Beacon Avenue S to the east, existing residences to the south, and existing residences and I-5 to the west. The existing athletic field is located in the western portion of the school campus (see **Figures 1** and **2**).

B. Environmental Elements

1. Earth

a. General description of the site:
Circle or highlight one: Flat, rolling, hilly, steep slopes, mountainous, other:

The ***Van Asselt School Athletic Field Lighting Project*** site is generally flat and gradually slopes from an elevation of approximately 244 feet near the northwest corner of the field to an elevation of approximately 238 feet near the southeast corner of the field. A slope area is located near the western edge of the school campus and descends to the west towards I-5.

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

The steepest slope on the school campus is approximately 25 percent and is located in a small area of the northwest portion of the ampus (north of the existing athletic field). According to the City of Seattle's Environmentally Critical Areas (ECA) Maps, an ECA steep slope area is located off-site, near the western edge of the school campus, and descends to the west toward I-5; this area is also designated as a landslide-prone area and a steep slope erosion hazard (*City of Seattle, 2023*).

In accordance with SMC 25.09.080 and 25.09.090, a steep slope buffer of 15 feet would extend from the top of the slope to the east and onto the school campus. Based on the proposed plans for the project, the proposed light pole locations would be located more than 15 feet from the campus site boundary and outside of the steep slope buffer.

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.

A geotechnical report was completed for the school campus by Wood Environment and Infrastructure Solutions, Inc. as part of a previous project at the Van Asselt School campus. The report included six site exploration borings as part of onsite investigations. Borings were completed to a depth of 15 to 21.5 feet deep. The soils encountered on the site generally consisted of fill of varying thickness overlaying unweathered sandstone (bedrock) weathered sandstone, and completely weathered sandstone that transitioned into residual soil. Areas in the southeast portion of the campus also contained Pre-Fraser non-glacial deposits *(Wood Environment, 2020*).

The project site does not contain any agricultural land areas of commercial significance.

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

There are no indications or history of unstable soils on the site or adjacent to the site and no evidence of landslide activity or unstable soils has been observed.

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

No grading would be required as part of the project. A minimal amount of excavation would be required to install the foundations for each of the proposed light poles.

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

Erosion is possible in conjunction with any construction activity. Site work would expose soils, but the implementation of a Temporary Erosion Sedimentation Control (TESC) plan would mitigate potential impacts. Once the project is operational, no erosion is anticipated.

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

The proposed project would not add any new impervious surfaces or buildings to the project site.

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

No significant erosion is anticipated with the construction of the proposed project. The proposed project would comply with City of Seattle regulations, including providing a Temporary Erosion and Sedimentation Control (TESC) Plan and Best Management Practices (BMPs). See **Appendix A** for a list of typical construction BMPs for SPS projects.

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.

During construction, the ***Van Asselt School Athletic Field Lighting Project*** could result in temporary increases in localized air emissions associated with particulates and construction-related vehicles. It is anticipated that the primary source of temporary, localized increases in air quality emissions would result from particulates and emissions associated with the proposed light pole installation. However, as described above under the Earth discussion, minimal amounts of excavation would be required for the project and air quality emission impacts are not anticipated to be significant.

Upon completion of the project, the primary source of emissions would be from vehicles travelling to and from the site. Emissions from such vehicles would not be anticipated to result in a significant adverse air quality impact.

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

The primary off-site source of emissions in the site vicinity is vehicle traffic on surrounding roadways, including I-5, Beacon Avenue S and S Myrtle Street; Boeing Field is also located to the west and is a source of emissions. There are no other known offsite sources of air emissions or odors that may affect the proposed project.

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

No significant air quality impacts are anticipated with the construction of the proposed project. Construction activities would be required to comply with Puget Sound Clean Air Agency (PSCAA) regulations, including Regulation I, Section 9.11 (prohibiting the emission of air contaminants that would be injurious to human health) and Regulation I, Section 9.15 (prohibiting the emission of fugitive dust, unless reasonable precautions are employed).

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 is no surface water body on or in the immediate vicinity of the ***Van Asselt School Athletic Field Lighting Project*** site. The nearest surface water body is the Duwamish River, which is located approximately 1.1 miles to the west of the project site, beyond I-5.

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 proposed project would not require any work over, in, or adjacent (within 200 feet) to any water body.

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 would be placed in or removed from any surface water body as a result of the proposed project.

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

   The proposed project would not require any surface water withdrawals or diversions.

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

   The proposed project site does not lie within a 100-year floodplain and is not identified as a flood prone area on the City of Seattle Environmentally Critical Areas map (*City of Seattle, 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.**

   There would be no discharge of waste materials to surface waters.

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 a general description, purpose, and approximate quantities if known.**

   No groundwater would be withdrawn, or water discharged to ground water as part of the proposed project.

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (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.**

   Waste material would not be discharged into the ground from septic tanks or other sources as a result of the proposed project.

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.**

   The proposed lighting poles and associated equipment are not anticipated to substantially change the amount of impervious surface on the site or generate additional runoff.

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

   The existing stormwater management system for the site would continue to ensure that waste materials would not enter ground or surface waters as a result of the proposed project.

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

   The proposed project would not alter or otherwise affect drainage patterns in the site vicinity.

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

   No impacts to surface, groundwater and runoff water are anticipated. The amount of impervious surfaces would not substantially change on the site with the project and the existing stormwater management system would continue to serve the field area.

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**

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

Existing grass areas are located surrounding the existing athletic field and portions of these areas would be disturbed to accommodate the installation of the proposed lighting poles. To the extent feasible, these grass areas will be returned to their original conditions upon the completion of the proposed project. There are no existing trees that would be affected by the installation of the proposed lighting poles.

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

No known threatened or endangered species are located on or proximate to the project site.

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

No additional landscaping is proposed as part of the project besides the replacement of existing grass areas that would be disturbed during the construction process.

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

Noxious weeds or invasive species that could be present in the vicinity of the site include giant hogweed, English Ivy, and Himalayan blackberry.

5. Animals

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

- **Birds: hawk, heron, eagle, songbirds, other: crows, pigeons, seagulls**
- **Mammals: deer, bear, elk, beaver, other: squirrels, raccoons, rats, opossums**
- **Fish: bass, salmon, trout, herring, shellfish, other:**

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

The following are listed threatened, endangered or candidate species that could be affected by development on the site or surrounding vicinity based on data from the U.S. Fish and Wildlife Service: marbled murrelet, yellow-billed cuckoo, monarch butterfly, bull trout, and north american wolverine (US Fish and Wildlife, 2022). However, it should be noted that none of these species have been observed at the site and due to the urban location of the site, it is unlikely that these animals are present on or near the site.

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

The proposed project site is not located within a specific migration route. However, in general, the entire Puget Sound area is within the Pacific Flyway, which is a major north-south flyway for migratory birds in America—extending from Alaska to Patagonia. Every year, migratory birds travel some or all of this distance both in spring and in fall, following food sources, heading to breeding grounds, or travelling to overwintering sites.

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

No specific measures are proposed to enhance wildlife and/or habitat.

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

There are no known invasive animal species on or adjacent to the project site; however, invasive species known to be located in King County include European starling, house sparrow and eastern gray squirrel.

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.

Electricity is the primary source of energy that would serve the proposed ***Van Asselt School Athletic Field Lighting Project***. During operation, this energy source would be used for lighting the athletic field. The field lights would operate consistent with Seattle Parks and Recreation Department Policy #060-P7.1.1, which allows for activities until 9:45 PM. Field security lighting could remain on until 10:00 PM to allow users to safely leave the field.

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

The proposed project would not affect the potential 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.

No significant energy impacts are anticipated with the proposed project. However, the project includes the following measures would be provided to conserve energy and minimize energy impacts.

- The proposed field lighting for the project would utilize LED lighting fixtures which would be more efficient and conserve energy when compared with traditional metal halide light fixtures.

- The proposed field lighting system would be connected to a fully programmable control system with remote operation to allow field lights to be turned off after play is completed and area lights would remain on for a short period of time to allow for ample light for safe egress from the site.

- The programmable control system would allow the lights to remain off if the field is not scheduled for use in advance through Seattle Public Schools or Seattle Parks and Recreation.

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.

Accidental spills of hazardous materials from equipment or vehicles could occur in conjunction with any construction activity. However, the construction activities for the

proposed project would require limited excavation and few vehicles/equipment so the potential for spills would be limited. The construction contractor would develop a spill prevention/control plan to prevent the accidental release of hazardous materials to the environment.

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

The Washington State Department of Ecology website was reviewed to identify any potential contaminated soils on or in the vicinity of the site, as well as potential issues related to the former Tacoma Asarco Smelter Plume. There are no records of any contaminated soils on the project site and the site is located in an area where levels of arsenic and lead associated with the smelter plume are anticipated to be below state cleanup levels.

A former gas station site to the east of the Van Asselt School campus (beyond Beacon Avenue S) was listed as a cleanup site by Ecology. The site is currently undergoing a cleanup action in coordination with Ecology (*Washington State Department of Ecology, 2023*).

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.

No existing hazardous chemicals/conditions are located within the project area that would affect the proposed project.

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 would be limited to gasoline and other petroleum products that are utilized by construction equipment and vehicles. No other toxic or hazardous chemicals are anticipated to be stored, used, or produced during the project's development or operation.

c. Describe special emergency services that might be required.

No special emergency services are anticipated to be required as a result of the project. As is typical of urban development, it is possible that normal fire, medical, and other emergency services may, on occasion, be needed from the City of Seattle for field activities (i.e. injuries during athletic events, etc.).

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

No significant environmental health hazards are anticipated as part of the project and no mitigation measures would be required. A spill prevention plan would be

developed and implemented during construction to minimize the potential for an accidental release of hazardous materials into the environment.

b. Noise

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

There are no existing sources of noise in the area that would affect the proposed project. Noise associated with airplanes from Boeing Field and traffic noise associated with adjacent roadways (I-5, Beacon Avenue S, and S Myrtle Street) are the primary sources of noise in the vicinity of the project site.

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

Short-Term Noise

During the construction process, minor, short-term noise impacts could occur from construction vehicles and equipment while the lighting poles are installed. Pursuant to Seattle's Noise Code (SMC, Chapter 25.08), maximum sound levels in residential communities shall not exceed 55 dBA. However, per SMC 25.08 and based on the Neighborhood Residential 3 zoning for the site, construction activities are allowed to exceed the maximum noise levels between 7 AM and 10 PM on weekdays and 9 AM to 10 PM on weekends. Construction equipment may exceed the sound level limits during construction periods by 25 dB(A) and portable powered equipment may exceed the limits by 20 dB(A). The proposed project would comply with provisions of Seattle's Noise Code (*SMC, Chapter 25.08*) as it relates to construction-related noise to reduce noise impacts during construction. Contractors are aware of the City of Seattle Noise Ordinance requirements and are contractually required by Seattle Public Schools to abide by them.

Long-Term Noise

A Noise Assessment was completed for the proposed project by Landau Associates (*Landau Associates, 2023*) and is included as **Appendix B** to this Checklist. As described above, the site is located in a residential zone and pursuant to the Seattle Noise Code (SMC 25.08), the applicable sound level limits are Leq 55 dBA during daytime hours and Leq 45 dBA during nighttime hours. As part of the noise assessment, sound level measurements were completed in the vicinity of residences that are closest to the project area to document existing noise conditions. Sound level measurements were also taken at an existing comparable athletic field (Brighton Playfield) during a sporting event similar to what would occur at the Van Asselt Athletic Field with the proposed project (youth soccer team practice) to document the expected noise levels that would occur with these events.

Existing noise sources that were documented at the Van Asselt Athletic Field site included noise from vehicle traffic (I-5, Beacon Avenue S, and S Myrtle Street) and aircraft noise related to Boeing Field. Sound level measurements were completed at two locations on the site and existing sound levels ranged from Leq 59 dBA to Leq 65 dBA.

Sound level measurements at Brighton Field documented the existing noise sources and levels during representative athletic field events that could occur with the ***Van Asselt School Athletic Field Lighting Project***. The primary source of noise was from activity on the athletic field. Additional sources of noise included traffic on nearby roadways (S Juneau Street, 39th Avenue S, and 42nd Avenue S) and aircraft noise. Sound level measurements at Brighton Field during athletic field activity ranged from Leq 54 dBA to Leq 58 dBA.

Projected sound levels were then calculated for potential field uses with the ***Van Asselt School Athletic Field Lighting Project*** based on sound level measurements that were documented at Van Asselt Athletic Field and Brighton Field. Accounting for distance to the field, the hourly Leq levels for project-related sound at the two nearest residences to the Van Asselt Athletic Field were calculated with sound levels at the residence to the north of the field projected to be approximately Leq 52 dBA and sound levels at the residence to the south of the field projected to be approximately Leq 58 dBA. Project-related sound levels were then incorporated with the existing measured sound levels at each location to determine the potential increases in over the existing ambient conditions. Based on that analysis, it was determined that potential increases in noise over ambient conditions would range between approximately 0 dBA and 2 dBA, depending on the ambient noise levels and location of the residence.

An increase in noise of 3 dBA or less is generally not discernable in active outdoor environments, such as in the vicinity of the project site. Although athletic field sounds may be noticeable at times during evening hours when ambient noises are lowest, the range of sound level increase associated with the proposed project would not be considered to be a significant impact (see **Appendix B** for details).

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

No significant noise impacts are anticipated with the proposed project. However, the project includes the following measures would be provided to minimize noise from construction and operation of the athletic field.

- Construction of the project would comply with provisions of the City's Noise Ordinance (SMC 25.08); specifically: construction hours would be limited to standard construction hours (non-holiday) from 7:00 AM to 10:00 PM and Saturdays and Sundays from 9:00 AM to 10:00 PM. However, similar to other SPS projects, construction would generally occur between 7 AM and 5 PM on weekdays

- The use of the field would comply with City of Seattle Parks and Recreation Department Policy #060-P7.1.1, which allows for activities until 9:45 PM. Field security lighting could remain on until 10:00 PM to allow users to safely leave the field.

- The proposed project would not include the provision of any permanent public address system. Amplified sound through the use of portable systems could be allowed on a limited basis for school-related events to the extent that they are necessary for the operation of the event/activity. The use of portable amplification systems would be restricted for non-school-related events.

- In the event that specific individual activities may cause noise issues, the City of Seattle maintains a 24-hour noise complaint hotline that can be used by the community surrounding the project site.

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 project site would continue to be utilized as an athletic field for the Van Asselt School and not be anticipated to affect current land uses on adjacent properties.

The Van Asselt School Athletic Field is located in the western portion of the Van Asselt School campus and consists of the existing synthetic turf field which is surrounded by a rubberized track. The perimeter surrounding the athletic field and track is comprised of existing grass areas.

Existing school buildings on the campus are located on the north and east sides of the campus and include an existing one-story building (constructed in 1950) which is located on the north and east side of the campus and a three-story building (constructed in 1909) which is located to the south of the one-story building but is currently not utilized by the school. An existing project is currently under construction on the site which would develop a new building addition to the west and south of the existing 1909 building. The Van Asselt School is currently utilized as an interim school site for schools that are under construction.

Existing land uses surrounding the proposed ***Van Asselt School Athletic Field Lighting Project*** site include existing residences to the north and south, I-5 to the west, and the existing Van Asselt School buildings to the east. Land uses further to the east (beyond the existing school campus and Beacon Avenue S) include single family and multifamily residences. The Van Asselt Community Center is also located to the northeast and the Beacon Avenue Church of God is located to the southeast.

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 project site has no recent history of use as a working farmland or forest land.

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?

The project site is located in an urban area and would not affect or be affected by working farm or forest land; no working farm or forest land is located in the vicinity of this urban site.

c. Describe any structures on the site.

There are no structures located on the Van Asselt School Athletic Field site. Existing school building structures are located to the east of the athletic field. The one-story Van Asselt School 1950 building is constructed of brick, glass, and wood siding. The existing three-story 1909 building is constructed of wood and glass and is not currently utilized by the school. A building addition project is also currently under construction on the site. The building addition would be three stories tall and constructed of wood, concrete, glass, and metal wall panel.

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

No structures would be demolished as part of the proposed project.

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

The current zoning classification for the site is Neighborhood Residential 3 (NR3) (*City of Seattle, 2023*).

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

The comprehensive plan future land use designation for the site is Neighborhood Residential (*City of Seattle, 2023*)

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

The project site is not located within the City of Seattle designated shoreline boundary.

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

As noted in Section B.1.b, an ECA steep slope area is located near the western edge of the school campus and descends to the west toward I-5; this area is also designated as a landslide-prone area and a steep slope erosion hazard (*City of Seattle, 2023*). In accordance with SMC 25.09.080 and 25.09.090, a steep slope buffer of 15 feet would extend from the top of the slope to the east and onto the school campus. Based on the proposed plans for the project, the proposed light pole locations would be located more than 15 feet from the campus site boundary and outside of the steep slope buffer.

No other environmentally critical areas are located on or adjacent to the project site.

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

No people would reside in the completed project or specifically work in the completed project. The proposed field lighting would allow for extended use of the athletic field during late fall, winter, and early spring months between the hours of 5:00 PM and 10:00 PM. Athletic event participants and attendees would utilize the site, and coaches, maintenance staff and referees would work on the field depending on the type of use activity.

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

The proposed project would not displace any people.

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

No displacement would occur and therefor no mitigation measures are necessary.

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

The proposed project would be compatible with existing land uses and plans. Seattle Municipal Code (SMC) limits the height of light poles to 30 feet in residential areas. However, SMC 23.51B.002(D)(6) provides provisions to allow light poles for athletic fields on new and existing schools sites to exceed the maximum permitted height, up to 100 feet if it is determined that the additional height is necessary to ensure adequate illumination and impacts from light and glare are minimized to the greatest extent practicable. The proposed project includes lighting poles that would be approximately 70 feet in height and a special exception to the height limit will be requested to comply with existing codes and ensure adequate field illumination and minimize light and glare impacts. A further discussion of light and glare is provided in Subsection B.11.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any.

The project site is not located near agricultural or forest lands and no mitigation measures are necessary.

9. Housing

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

No housing units would be provided as part of the project.

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

No housing presently exists on the site, and none would be eliminated.

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

No housing impacts would occur, and no mitigation would be necessary.

10. Aesthetics

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

The proposed ***Van Asselt School Athletic Field Lighting Project*** would include four galvanized steel lighting poles surrounding the athletic field (one pole near each of the four corners of the athletic field). Each of the poles would be 70 feet tall. Shielded LED floodlights would be mounted on each of the poles and one additional floodlight would be mounted at a height of 15 feet above grade. One additional low wattage full cutoff area light will be mounted at a height of 30 feet above grade on the two poles along the east side of the field.

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

The proposed lighting poles would be visible on the site but would not be anticipated to obstruct any views. Views across the athletic field site would change to reflect the four new lighting poles on the site; however, this change would be minor and would not represent a significant aesthetic impact.

The City of Seattle maintains public view protection policies are which are intended to "protect public views of significant natural and human-made features: Mount Rainier, the Olympic and Cascade Mountains, the downtown skyline, and major bodies of water including Puget Sound, Lake Washington, Lake Union, and the Ship Canal, from public places consisting of specified viewpoints, parks, scenic routes, and view corridors identified in Attachment 1 to the SEPA code[3]. However, there are no SEPA protected view sites on or in the vicinity of the ***Van Asselt School Athletic Field Lighting Project*** site.

View protection from City-designated Scenic Routes is encouraged[4]. According to documentation from the City of Seattle, S Myrtle Street (located immediately north of the campus) is designated as a scenic route by the City. Installation of the proposed lighting poles would be located to the south of S Myrtle Street (approximately 280 feet from S Myrtle Street) and while a portion of the lighting poles could be visible from S Myrtle Street they would not be anticipated to impact the east-west views that are available along this scenic route.

Views of designated historic structures are also a consideration[5] and the existing three-story 1909 building that is located on the Van Asselt School campus (southeast of the athletic field) is designated as a Landmark by the City of Seattle. The proposed ***Van Asselt School Athletic Field Lighting Project*** would not result in any modifications to the existing 1909 building and views of the building would remain generally unchanged. Views of the 1909 building from the east could include a portion of the field lighting poles in the background; however, the lighting poles would not obstruct views of the existing 1909 building and are not anticipated to significantly impact views.

There are no designated views of the Space Needle on or adjacent to the project site[6].

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

No significant impacts are anticipated with regard to aesthetic impacts. The proposed lighting poles are designed to minimize size and bulk, and the floodlights are designed to minimize quantity and size. No other measures are necessary.

[3] Seattle Municipal Code Chap. 25.05.675 P.2.a.i. and the accompanying *Seattle Views: An Inventory of 86 Public View Sites Protected under SEPA (May 2002)* document.

[4] Ord. #97025 (Scenic Routes Identified by the Seattle Engineering Department's Traffic Division) and Ord. #114057 (Seattle Mayor's Recommended Open Space Policies).

[5] Seattle Municipal Code Chapter 25.05.675 P.2.b.i.

[6] Seattle Municipal Code Chap. 25.05.675 P. and Seattle DCLU, 2001

11. Light and Glare

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

A Light and Glare Report was prepared for the ***Van Asselt School Athletic Field Lighting Project*** by Stantec (*Stantec, 2023)* and is included as **Appendix C** to this SEPA Checklist.

The proposed athletic field lighting system would consist of four galvanized steel lighting poles that would be located near each of the four corners of the athletic field. The proposed poles would be 70 feet tall. Each of the poles would contain shielded LED floodlights mounted to the top of the poles; one additional floodlight would be mounted on each pole at approximately 15 feet above grade and aimed above the field. The two poles on the east side of the field would also include one additional low wattage full cutoff area light that would be mounted at approximately 30 feet above grade.

Seattle Municipal Code (SMC) limits the height of light poles to 30 feet in residential areas. However, SMC 23.51B.002(D)(6) provides provisions to allow light poles for athletic fields on new and existing schools sites to exceed the maximum permitted height, up to 100 feet if it is determined that the additional height is necessary to ensure adequate illumination and impacts from light and glare are minimized to the greatest extent practicable. A special exception to the height limit will be requested to comply with existing codes and ensure adequate field illumination and minimize light and glare impacts. In addition, City of Seattle guidelines recommend that athletic field spill light not exceed 0.8 foot-candles at residential property lines.

The proposed lighting design would meet the requirements for a Class IV level of play which is the lowest recommended level listed by the Illuminating Engineering Society of North America. The field is designed to an average maintained lighting level of 29-foot candles and the lighting system is designed using a 0.95 design factor to achieve initial lighting levels. These lighting design levels meet current practices for the City of Seattle and Seattle Public Schools and would be consistent with recently lighted fields at Whitman Middle School and Jane Addams Middle School.

The proposed field lighting would generally operate between the hours of 5:00 PM and 9:45 PM and would allow for extended use of the athletic field during late fall, winter, and early spring months. The lighting system would be connected to a fully programmable control system with remote operation and separate switches installed onsite to operate the lights manually, if necessary. Field lights would operate on a separate lighting zone to allow the field lights to be turned off after play is completed (generally no later than 9:45 PM). The area lights would be on a separate zone and would remain on for a short period of time after each event (no later than 10:00 PM) to allow ample light for safe egress from the field (see **Appendix C** for further details).

Glare

The proposed athletic field lighting system would generate new sources of visible glare on the site, including direct glare from lighting system and reflected glare off of the poles, lights, and surfaces around the athletic field. To reduce the amount of glare that is visible off-site the proposed floodlights will need to be mounted higher than the 30-foot height limit identified in the Seattle Municipal Code. At a height of 30 feet, the visibility of the high wattage LEDs and reflectors from adjacent residences would be excessive. With the increased mounting heights (70 feet), the floodlights would have steeper aiming angles which would result in more effective use of the floodlight shields. A substantially smaller portion of the floodlight reflectors and LED diodes would be visible offsite with the increased mounting height to 70 feet.

Direct glare would be visible from all directions overlooking the site, depending on the viewer's location. Offsite exposure to low levels of direct glare would occur for the four adjacent residences near the south side of the field; however, existing trees between the field and the residences provide some reduction in visible direct glare. Three residences to the north would also have minimal to low exposure to direct glare. Since these residences site at a higher elevation than the field they would have reduced views to the floodlights and more effective use of the external shields from those residences to the north.

Reflected glare would also be visible from all locations surrounding the site, depending on the viewer's location and elevation. The three residences to the north would have the greatest amount of exposure to reflected glare which would generally be reflected off the synthetic turf surface and rubberized track. The existing topography and vegetative screening would help to limit direct views of reflected glare from these locations. Residences that are situated at a lower elevation than the field or are farther away would experience minimal to low levels of reflected glare.

To maximize glare reduction, the proposed design of the lighting system would utilize "full cutoff" style LED floodlights that provide the most advanced light control and shielding that is currently available. Additional reduction in glare would be provided by internal shielding of the LED diodes. The additional shield would nearly eliminate any direct views of the LEDs from offsite locations (see **Appendix C** for further details).

Spill Light

The proposed athletic field lighting system would generate minimal amounts of spill light. The increase in height from 30 feet to 70 feet above the playing surface would dramatically reduce the amount of spill light generated by the lighting system. The higher pole heights allow the floodlights to be aimed down to the athletic field and away from adjacent properties. The taller height also allows for increased effectiveness of the internal and external shielding on the floodlights to control the emitted light and prevent light from escaping beyond the site.

The use of steeper aiming angles allows for less direct light to be delivered beyond the boundaries of the field. The external shielding blocks more direct light and more light is

delivered to the field with the increased mounting heights. The proposed taller mounting heights are typical for this type of use and similar to many existing lighting systems in the City of Seattle and at Seattle Public School facilities.

The vertical spill light from the proposed field lighting was calculated along the adjacent property lines on the south side of the site. At a mounting height of 70 feet, the maximum amount of measurable light delivered along the south residential property lines is 0.1 foot-candles which is below the City of Seattle recommended practice of 0.8 foot-candles. For comparison purposes, if lights were mounted at a height of 30 feet, the amount of measurable light along the west property line would be 5.1 foot-candles (see **Appendix C** for details).

Sky Glow

The proposed athletic field lighting system would generate a minimal amount of "sky glow". The proposed mounting heights of 70 feet would reduce the amount of "sky glow" that could be emitted. With mounting heights of 70 feet, the floodlights would have steeper aiming angles that would result in a more effective use of the external shields. The project would also utilize "full cut-off" style LED floodlights that provide advanced light and shielding to block a substantial amount of direct light that could be emitted into the atmosphere.

Based on the existing condition of high ambient light levels, "sky glow" currently evident in the area, and limited effect expected from the project, the effect of the project on "sky glow" in the surrounding area would be minimal (see **Appendix C** for details).

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

The proposed lighting system would not create a safety hazard or interfere with views in the vicinity of the project site.

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

No off-site sources of light or glare are anticipated to affect the proposed project.

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

The following measures are incorporated into the proposed project to minimize light and glare:

- The proposed project incorporates an increased lighting pole height up to 70 feet in order to minimize light spill, glare and "sky glow". The taller light pole heights would allow for the use of steeper aiming angles to ensure that light would be directed to the playing field and minimal light would be delivered beyond the boundaries of the field.

- The provision of "full cut-off" style LED floodlights would provide maximum light control and shielding to minimize glare and spill light from the project site.

- The provision of internal shielding of the LED diodes would nearly eliminate any direct views of the LEDs from offsite locations.

- The lighting system would be connected to a fully programmable control system with remote operation and separate switches installed onsite to operate the lights manually, if necessary. Field lights would operate on a separate lighting zone to allow the field lights to be turned off after play is completed (generally no later than 9:45 PM). The area lights would be on a separate zone and would remain on for short period of time after each event (no later than 10:00 PM) to allow ample light for safe egress from the field.

- The programmable control system would allow the lights to remain off if the field is not scheduled for use in advance through Seattle Public Schools or Seattle Parks and Recreation.

12. Recreation

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

The Van Asselt School Athletic Field is one of the primary recreation areas on the school campus and has been utilized for soccer, football, and other sporting activities; the rubberized track has also been utilized for school use activities, as well as informal community use. The campus also includes hard surface play areas, covered play areas with basketball hoops and playground equipment.

There are also several parks and recreation areas in the vicinity of the project site (approximately 1.0 mile), including:

- Van Asselt Community Center and Playground is located immediately to the northeast of the site.
- John C. Little, Sr Park is located approximately 0.4 miles to the east of the site.
- The East Duwamish Greenspace is located approximately 0.4 miles to the south.
- Othello Park is located approximately 0.7 miles to the east.
- The Maple School Ravine is located approximately 0.7 miles to the northwest.
- Brighton Playfield is located approximately 0.9 miles to the northeast.
- Dearborn Park is located approximately 1.0 miles to the north.

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

The proposed project would not displace any existing recreational uses. The provision of the field lighting with the project would allow for extended use of the field in the late fall, winter, and early spring by Seattle Public Schools, as well as Seattle Parks and Recreation,

and other community groups. Informal use of the field would also continue to be permitted during times when scheduled activities are not taking place.

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

The proposed ***Van Asselt School Athletic Field Lighting Project*** would increase the available use of the athletic field, particularly during the late fall, winter, and early spring, and allow for increased recreational opportunities by the Seattle Public Schools and the surrounding community. No additional mitigation is necessary.

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 buildings or structures currently located on the existing field area. The original Van Asselt School building is a three-story structure that was constructed in 1909 and is located in the south portion of the campus (southeast of the existing field). This building was designated as a City of Seattle Landmark in May 2019 and features of the landmark that were identified to be preserved included the site and the exterior and interior of the 1909 building. The 1940 and 2002 additions to the original 1909 Van Asselt School building were specifically excluded from the landmark determination as features to be preserved. The proposed ***Van Asselt School Athletic Field Lighting Project*** does not include any modifications or alterations that would affect the 1909 building.

According to the City of Seattle Landmarks Map and Database (*City of Seattle, 2023*), other listed City of Seattle Landmarks in the site vicinity include the Old Georgetown City Hall (located approximately 1.0 mile to the northwest of the project site) and the Rainier Cold Storage/Ice/Seattle Brewing/Malting Co. Building (located approximately 1.1 miles to the northwest of the project site)

According to the Washington State Department Archaeology and Historic Preservation's (DAHP) Washington Information System for Architectural and Archaeological Records Data (WISAARD), the closest listed structures are the Maple Donation Claim (located approximately 0.3 miles to the northeast and listed on the Washington Heritage Register [WHR]) and the Jimmie and Betty Eng House (located approximately 0.7 miles to the southeast and listed on the WHR and the National Register of Historic Places [NRHP]).

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.

The DAHP WISAARD predictive model indicates that the project site is comprised of area that could be considered moderate to high risk for archaeological resources and recommends/advises that a cultural resources assessment be conducted. A cultural resources assessment was completed for the project site (*Perteet, 2023*) and included a summary of the site geology/soils and cultural setting, a discussion of previous cultural resource investigations on the site and in the site vicinity (including the previous assessment for the Van Asselt School campus conducted in 2021), and a summary of conclusions and recommendations for the project (see **Appendix D** for details[7]).

The previous cultural resources assessment for the Van Asselt School campus included two shovel probe investigations adjacent to the northwest end of the athletic field. Several non-diagnostic post-contact cultural objects such as plastic and glass fragments were recovered from fill but no Holocene-age native soils with potential to contain significant archaeological deposits were observed. Additionally, excavation adjacent to the southeast corner of the track was archaeologically monitored for the current Van Asselt School Building Addition construction project in 2022 and the archaeological monitor examined stratigraphic profiles adjacent to the track when on-site. Historical fill was observed to directly overlie unweathered glacial diamict in these investigations near the track, supporting the expectations derived from prior geotechnical investigation and the initial cultural resources assessment report and no cultural material was observed.

The ***Van Asselt School Athletic Field Lighting Project*** proposes highly localized ground disturbance in four locations around the outside of the existing athletic field. The athletic field area shows evidence of significant prior cutting that would have removed near surface Holocene soils and sediments with potential to contain significant cultural deposits. Therefore, the overall project area has a low potential to contain significant archaeological materials. Monitored trench excavation within the former 28th Avenue Roadway, near the southwest corner of the project area did not encounter any diagnostic cultural material or buried surface.

Lighting pole 2 will be installed in the vicinity of an early 20th century house and other small structures. This location has a moderately elevated potential to contain buried cultural material compared to the rest of the project area. However, these buildings were removed between 1937 and 1949, and it is unlikely that any buried structural remnants remain. It is recommended that the proposed project proceed under the existing Inadvertent Discovery Plan (IDP), developed for the recent school building addition

[7] On-file with Seattle Public Schools.

construction project. If structural remnants or artifact concentrations associated with the early 20th century home are encountered, ground disturbance should pause, the find should be reported according to the IDP, and the material should be recorded by a professional archaeologist. Construction personnel should be informed of the potential for encountering cultural material and the notification protocols in the IDP prior to commencing ground disturbance (see **Appendix D** for details).

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 DAHP website, WISAARD, and City of Seattle Landmarks website were consulted to identify any potential historic or cultural sites in the surrounding area, as well as the potential for encountering archaeological resources in the area.

In addition, a Cultural Resources Assessment was completed for the project (*Perteet, 2023*). The assessment included a summary of the site geology/soils and cultural setting, a discussion of previous cultural resource investigations on the site and in the site vicinity (including the previous assessment for the Van Asselt School campus conducted in 2021), and a summary of conclusions and recommendations for the project (see **Appendix D** for details).

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.

The Cultural Resources Assessment (*Perteet, 2023*) recommended that the proposed project proceed under the existing Inadvertent Discovery Plan (IDP) that was developed for the recent Van Asselt School Building Addition construction project. If structural remnants or artifact concentrations associated with the early 20th century home are encountered, ground disturbance should pause, the find should be reported according to the IDP, and the material should be recorded by a professional archaeologist. Construction personnel should be informed of the potential for encountering cultural material and the notification protocols in the IDP prior to commencing ground disturbance.

14. Transportation

A Transportation Technical Report (*Heffron Transportation, Inc., 2023*) has been prepared for the proposed project and the results of the report are summarized in this section. For further details on the Transportation Technical Report, please refer to **Appendix E** of this Checklist.

It should be noted that while the Transportation Technical Report provides an analysis of parking with the project, the State of Washington recently adopted SEPA-related amendments on January 20, 2023 which removes parking as an element of the environment in WAC 197-11-444(2)(c)(iv), as well as the removal of parking-related question from the environmental checklist in WAC 197-11-960(B)(14)(c). Pursuant to these amendments, the City of Seattle will no longer identify and analyze parking impacts in its SEPA analysis.

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 Van Asselt School site is bounded on the east by Beacon Avenue S, on the north by S Myrtle Street, on the west by Interstate-5 (I-5), and on the south by residential properties. The school building and the existing surface parking lot primarily occupy the northeastern two-thirds of the site; athletic fields are located on the southwestern third of the site. The school's existing outdoor athletic facilities consist of a synthetic-turf football/soccer field surrounded by a narrow running track. At this time of this report, the site was under construction to modernize and expand the school building and improve the shared access driveway at the southeast corner of the site. Construction at the southeast portion of the site will result in a small new parking lot and circulation loop. After construction, the site will still be accessed by the two existing driveways on S Myrtle Street and one access driveway on Beacon Avenue S that will be shared with the adjacent Beacon Avenue Church of God. The site's eastern frontage on Beacon Avenue S is expected to remain signed for school bus load only from 7:00 a.m. to 4:00 p.m. The proposed athletic field lighting project would not change access to the school site.

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 Beacon Avenue S and S Myrtle Street. On Beacon Avenue S, the southbound Metro bus stop is located at the north end of the curb adjacent to the school separate from the school bus loading areas; the northbound stop is located north of S Myrtle Street. On S Myrtle Street, the eastbound stop is located east of Beacon Avenue S, and the westbound stop is located east of Beacon Avenue S opposite the school site. These stops are served by Metro Routes 36 and 107. Route 36 provides all-day service seven days per week between Downtown Seattle, Beacon Hill, and Rainier Beach, with weekday headways (time between consecutive buses) of 8 to 10 minutes. Route 107 provides all-day service seven days per week between Beacon Hill, Georgetown, Rainier Beach, and Renton, with weekday headways of 15 to 30 minutes.

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).

No, the project would not require any new 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 would not use or occur in the immediate vicinity of water transportation. The site is located about 1,000 feet northeast of King County International Airport-Boeing Field and Union Pacific Railroad facilities, which are located on the west side of Interstate 5. The project would not use air or rail 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 field lighting project could generate between 240 to 300 additional trips per day for part of the year—primarily from about October until early March. Peak volumes (estimated at about 85 trips per hour associated with scholastic athletics) added due to the field lights could occur in the PM peak hour as a high school athletic practice or game ends (up to 55 outbound trips) and the spectators and participants of a recreational game arrive (estimated at 25 trips in and 5 trips out). During the remainder of the year, natural lighting conditions allow for field use during these times without the need for field lights (see **Appendix E** for details).

Based on observations of traffic at other athletic fields, none of the new trips are expected to be trucks (commercial or non-passenger vehicles). However, participants and/or spectators of some scholastic athletics may be transported to and from the site in buses (e.g. school buses).

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 proposal would 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.

The proposed project would not result in significant adverse impacts to traffic or parking within the study area. Based on the analyses presented in the referenced *Transportation Technical Report*, the project would not result in significant adverse impacts to traffic or parking within the study area. It is recommended that the District ensure that the off-street parking lots are open and available for users during all times that the field is scheduled for use. No other mitigation would be required to accommodate the project (see **Appendix E** for details).

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.

While the completed project would result in increased use of the athletic field which could result in some injuries due to athletic activities and uses, it is not anticipated to generate a significant increase in the need for public services. To the extent that emergency service providers have planned for gradual increases in service demands, no significant impacts are anticipated.

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

The potential increase in people using the athletic field may result in incrementally greater demand for emergency services; however, it is anticipated that adequate service capacity is available within the South Beacon Hill area to preclude the need for additional public services.

16. Utilities

a. Circle utilities currently available at the site: <u>electricity</u>, <u>natural gas</u>, <u>water</u>, <u>refuse service</u>, <u>telephone</u>, <u>sanitary sewer</u>, septic system, other:

All utilities are currently available at the site.

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.

The proposed field lighting system would require additional electricity for operation. Utilities and providers (in parentheses) proposed for the project would include the following:

- Electrical (Seattle City Light) – for the proposed field lighting system and associated pad mount transformer.

- Refuse Service (Seattle Public Utilities/Waste Management Northwest) – Seattle Public Utilities, through a contract with Waste Management Northwest, provides refuse service for the south Seattle area, including the project site, and would continue to provide service. Seattle Public Schools would consider the provision of an additional receptacle for garbage and recycling at the field.

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

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

Date submitted: 4/19/2023

REFERENCES

City of Seattle. *City of Seattle Comprehensive Plan*. Accessed January 2023.

City of Seattle. *City of Seattle Department of Neighborhoods Landmarks Website and Map: https://www.seattle.gov/neighborhoods/programs-and-services/historic-preservation/landmarks.* Accessed January 2023.

City of Seattle. *City of Seattle GIS website: http://web1.seattle.gov/dpd/maps/dpdgis.aspx*. Accessed January 2023.

City of Seattle. *City of Seattle Municipal Code*. Accessed December 2022.

City of Seattle. *Ordinance No. 97025*. August 26, 1958.

City of Seattle. *Ordinance No. 114057*. July 11, 1988.

City of Seattle. *Seattle Views: Inventory of 86 Public View Sites Protected under SEPA.* May 2002.

Heffron Transportation, Inc. *Transportation Technical Report for Athletic Field Lighting at Van Asselt School Project*. April 6, 2023.

Landau Associates. *Noise Assessment for the Van Asselt Athletic Field Lighting Project*. April 6, 2023.

Perteet. *Cultural Resources Assessment for the Van Asselt School Athletic Field Lighting Project.* April 10, 2023.

Perteet. *Cultural Resources Assessment for the Van Asselt School*. March 2021.

Seattle School District and Seattle Parks and Recreation. *Agreement for the Joint Use of Facilities Between Seattle School District and City of Seattle Parks and Recreation – 2022-2027*.

Stantec. *Van Asselt School Field Lighting Light and Glare Report.* April 17, 2023.

U.S. Fish and Wildlife Service. *IPaC. https://ecos.fws.gov/ipac/location/index*. Accessed December 2022.

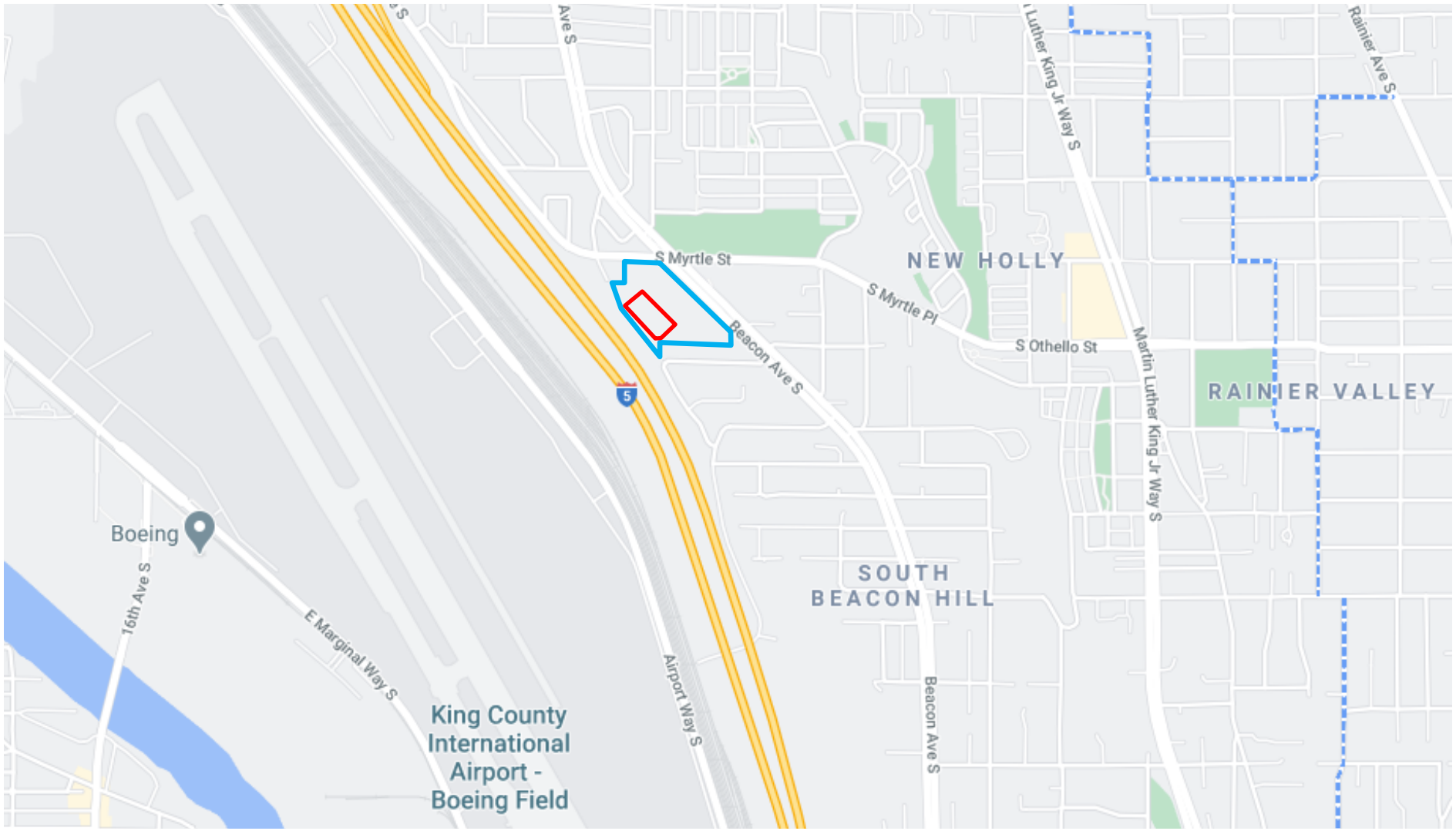
Washington State Department of Archaeology and Historic Preservation. *Washington Information System for Architectural and Archaeological Records Data*. Accessed December 2022.

Washington State Department of Ecology. *Washington State Department of Ecology Website: https://ecology.wa.gov/*. Accessed January 2023.

Wood Environment and Infrastructure Solutions, Inc. *Preliminary Geotechnical Report for the Van Asselt School*. June 29, 2020.

FIGURES

Van Asselt School Athletic Field Lighting Project
Environmental Checklist



Proposed Athletic Field Lighting Site Area

School Campus Site Boundary

Note: This figure is not to scale.

North

Source: Google Maps and EA Engineering, 2023

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

Figure 1

Vicinity Map

Van Asselt School Athletic Field Lighting Project
Environmental Checklist

Proposed Athletic Field Lighting Site Area

School Campus Site Boundary

Note: This figure is not to scale.

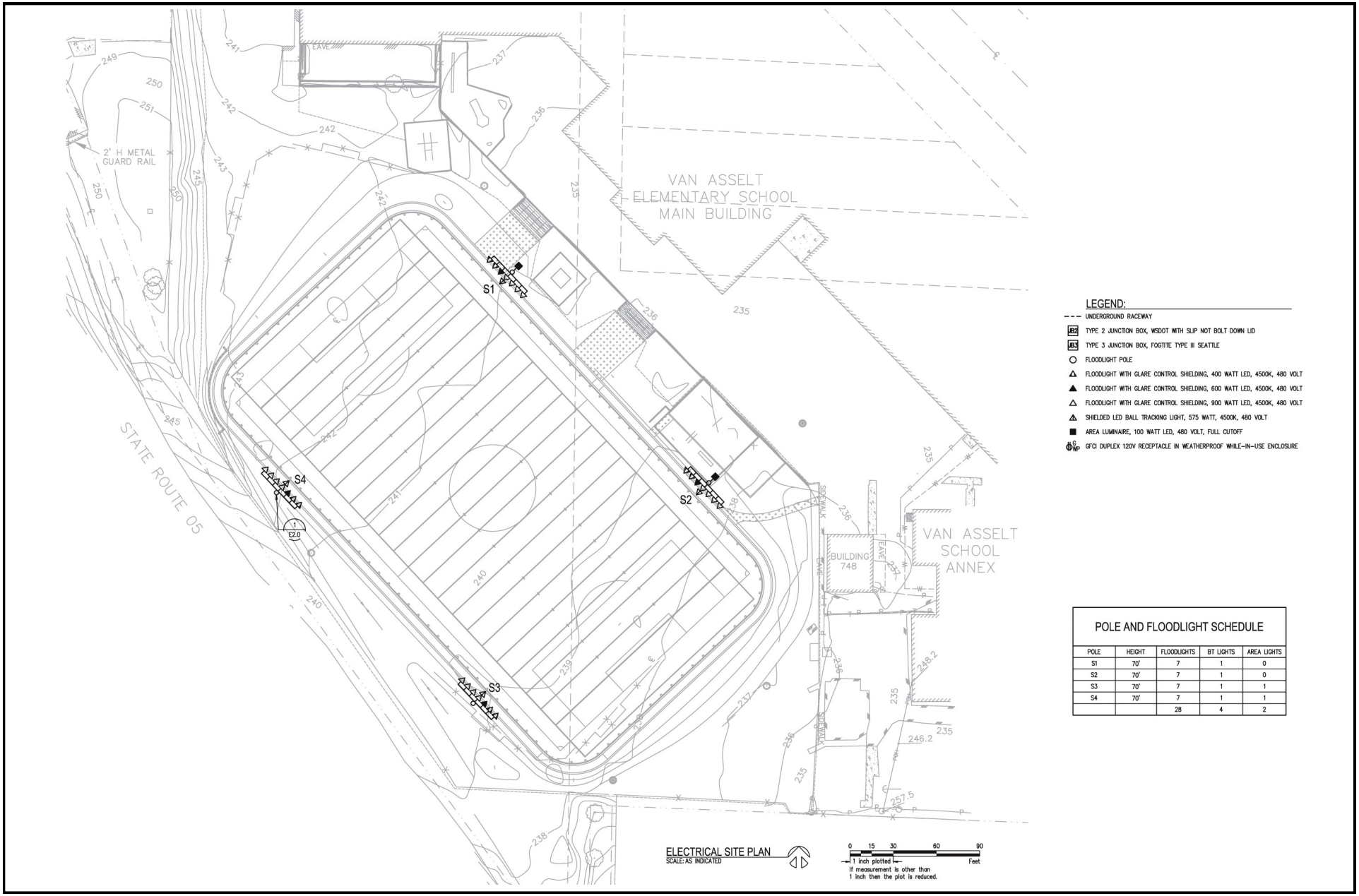
North

Source: Google Maps and EA Engineering, 2023

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

Figure 2

Aerial Map



Source: Stantec, 2023

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

Figure 3

Site Plan

APPENDIX A

Construction Best Management Practices

APPENDIX A

CONSTRUCTION BEST MANAGEMENT PRACTICES

The contractor will be required to implement measures to ensure the minimal environmental impacts throughout the construction process, which could include the following:

- The contractor will submit a written earthwork plan to the Project Engineer for approval prior to the commencing with any mass excavation or filling. The earthwork plan will also include:
  - Sequencing of the earthwork and grading activities;
  - Proposed equipment to be utilized;
  - Surface water diversion and control (description of how existing catch basins at the project site would remain intact and measures used to protect them from sediment during construction);
  - Proposed protection methods for excavated stockpiled fill materials and trenches;
  - Soil drying procedures; and,
  - Any other information pertinent to the manner in which the earthwork and grading will be performed.

- The contractor will obtain the City of Seattle's Department of Construction and Inspection approval that erosion control measures are in place and functioning, and will maintain erosion control measures as earthwork and utility construction commences in accordance with City of Seattle Standards.

- Surface water controls (i.e., temporary interceptor swales, check dams, silt fences, etc.) will be constructed simultaneously with clearing and grading for project development.

- Surface water and erosion control measures will be relocated or new measures will be installed so as site conditions change, erosion control measures remain in accordance with City of Seattle Best Management Practice (BMP) requirements during the construction period.

- All construction areas inactive for more than seven days during the dry season (April 1st to October 31st) or two days during the wet season (November 1st to March 31st) will be covered.

- Mitigation measures to reduce and/or control impacts to air will include:
  - Watering surfaces to control dust, the use of temporary ground covers, sprinkling the project site with approved dust palliatives, or use of temporary stabilizations practices upon the completion of grading.
  - Wheel-cleaning stations will be provided to ensure construction vehicle wheels and undercarriages do not carry excess dirt from the site onto adjacent roadways.

  - Streets will be regularly cleaned to ensure excess dust and debris is not transported from the construction site onto adjacent roads.
  - Construction activities will be planned to minimize exposing areas of earth for extended periods.
  - The contractor will be required to comply with the Puget Sound Clean Air Agency's (PSCAA) Regulation I, Section 9.15, requiring reasonable precautions to avoid dust emissions and Regulation I, Section 9.11, requiring the best available measures to control emissions of odor-bearing contaminants. The contractor will be required to comply with recommendations in the Washington Associated General Contractor brochure "Guide to Handling Fugitive Dust from Construction Projects."

- During construction, BMPs would be implemented to ensure that sediment originating from disturbed soils would be retained within the limits of disturbance. BMP measures may include installation of filter fabric between grate and rings of all catch basin inlets, fabric fencing, barriers, check dams, etc.

- Construction activities will be restricted to hours designated by the City of Seattle Noise Control Ordinance (SMC 25.08.425). If construction activities exceed permitted noise levels, the District would instruct the contractor to implement measures to reduce noise impacts to comply with the Noise Ordinance, which may include additional muffling of equipment.

- Construction vehicle traffic to and from the site will be minimized during peak traffic hours.

- Construction vehicles will not be parked in traffic lanes.

- Flaggers will be provided as required.

- Barriers, flashing lights, walkways, guardrails, and night lighting will be provided as required for safety and control.

- Fire lanes and roadways to existing buildings will be retained, as required by the fire department.

- Walkways leading past the site will remain clear of construction vehicles and debris and will remain safe at all times.

APPENDIX B

Noise Assessment

April 6, 2023

EA Engineering
3 Washington Center
Newburgh, NY 12550-4627

Attn: Jeffrey Ding

Transmitted via email to: *jding@eaest.com*

Re: Noise Assessment
Van Asselt Athletic Field Lighting Project
Seattle, Washington
Landau Project No. 0878010.010

Dear Mr. Ding:

Beginning in June 2024, Seattle Public Schools proposed to install a new outdoor lighting system at the Van Asselt Elementary Playfield, located at 7201 Beacon Avenue South, Seattle, Washington. The new lights would be installed around the synthetic athletic field southwest of the school building. The Van Asselt Interim School Athletic Field Lighting Project (the Project) is a Capital Construction project passed by Seattle voters under the Buildings, Technology, Academics/Athletics (BTA) V Capital Levy in February 2022. The Project would allow sporting activities to occur in the outdoor athletic field after sunset. Landau understands that there is concern from nearby residences that the Project may result in an increase in ambient noise levels due to activities on the field (i.e., from sporting event players and spectators).

At the request of Seattle Public Schools, Landau Associates, Inc. (Landau), through a sub-consultant arrangement with EA Engineering, Science, and Technology, Inc. (EA), completed an assessment of the potential for noise impacts once the new lighting system has been installed and is operational. This letter report summarizes the results of this assessment.

Noise Level Terminology, Human Hearing, and Descriptors

The human ear responds to a very wide range of sound intensities. The decibel scale (dB) used to describe sound is a logarithmic rating system that accounts for the large differences in audible sound intensities. This scale accounts for the human perception of a doubling of loudness as an increase of 10 dB. Therefore, a 70-dB sound level will sound about twice as loud as a 60-dB sound level. People generally cannot detect differences of 1 dB; in ideal laboratory situations, differences of 2 or 3 dB can be detected by people, but such a change probably would not be detectable in an average outdoor environment. A 5-dB change would probably be perceived under normal listening conditions.

When addressing the effects of noise on people, it is useful to consider the frequency response of the human ear. Sound-measuring instruments are therefore often programmed to weight measured sounds based on the way people hear. The frequency-weighting most often used is A-weighting because it approximates the frequency response of human hearing and is highly correlated to the effects of noise on people. Measurements from instruments using this system are reported in "A-weighted decibels," or dBA. All sound levels in this evaluation are reported in A-weighted decibels.

Distance from the source, the frequency of the sound, the absorbency of the intervening ground, obstructions, and the duration of the noise-producing event all affect the transmission and perception of noise. The degree of this effect also depends on who is listening and on existing sound levels.

Environmental noise is usually described in terms of certain metrics that allow comparison of sound levels at different locations or in different time periods. The equivalent sound level, or Leq, is the level that, if held constant over the same period of time, would have the same sound energy as the actual, fluctuating sound. As such, the Leq can be considered an energy-average sound level. Because the Leq considers sound levels over time, this metric accounts for the number and levels of noise events during an interval (e.g., 1 hour) as well as the cumulative duration of these events.

The maximum sound level, or Lmax, is the highest sound level within a specified time interval.

The Lns are statistical noise levels, or levels exceeded during n percent of the measurement period, where n is a number between 0 and 100 (for example, the L50 is the level exceeded 50 percent of the time). The L1 metric is occasionally used in lieu of the Lmax when measuring compliance with noise regulations.

Regulatory Setting

The Project site and the surrounding properties are located within the City of Seattle, and the noise limits included in the Seattle noise ordinance (Seattle Municipal Code [SMC], Chapter 25.08) apply to the Project. The SMC sets noise limits based on sound levels and durations of allowable daytime/nighttime operational noise and daytime construction noise. Operational noise limits are applicable to the Project and are based on the zoning of the source and receiving properties. The Project area and surrounding residential lands are zoned “Neighborhood Residential,” a residential zoning designation. Therefore, the applicable sound level limits for the Project, as hourly Leqs, are 55 dBA during daytime hours and 45 dBA during nighttime hours, as is presented in Table 1 . Note that SMC operational noise limits also include not-to-be-exceeded Lmax levels that are 15-dBA higher than the Leq limit.

The Seattle noise code identifies a number of noise sources or activities that are exempt from the noise limits shown in Table 1 during daytimes hours, including certain sounds created by unamplified sanctioned events (i.e., official sporting events).

Table 1. City of Seattle Maximum Permissible Sound Levels

Zoning District of Noise Source	Zoning District of Receiving Property		
	Residential	Commercial	Industrial
Residential	55 / 45	57	60
Commercial	57 / 47	60	65
Industrial	60 / 50	65	70

Notes:

(a) Source: Seattle Municipal Code Chapter 25.08

(b) The above operational noise limits are based on the measurement interval equivalent sound level (L_{eq}) and a not-to-be-exceeded L_{max} level 15 dBA higher than the indicated limits.

(c) The operational noise limits for residential receivers are reduced by 10 dBA during nighttime hours (i.e., 10 p.m. to 7 a.m. weekdays, 10 p.m. to 9 a.m. weekends) and are displayed for daytime/nighttime hours.

Methodology

To complete this assessment, Landau conducted ambient noise measurements in the vicinity of residences near the Project area. Landau also conducted measurements of an existing outdoor athletic field during a sporting event similar to what might occur at the Van Asselt athletic field to document expected noise levels from similar events. Landau then completed an assessment to determine the potential increase over ambient noise due to the Project during proposed hours of operation (i.e., after dusk and before 10 p.m.).

Note that because unamplified noises from sanctioned events are exempt from the SMC during daytime hours, and because proposed uses of the Van Asselt athletic field includes unamplified activities prior to 10 p.m., the following does not include an assessment of compliance with the SMC.

Noise Measurements

Measurement Locations

Landau conducted two (2) sound level measurements (SLMs) at the Van Asselt athletic field, one at the north end of the field and one at the south end, as shown on Figure 1-1. These SLM locations represent ambient noise levels in the vicinity of the two nearest residences to the Project.

To characterize sound levels from activity on a similar athletic field during evening hours (i.e., after sunset), Landau took a measurement at the City of Seattle's Brighton Playfield, located at 6000 39th Avenue South, Seattle, Washington. The location of the SLM at the Brighton Playfield is shown on Figure 1-2. The Brighton Playfield was selected as a representative athletic field with lighting because there was minimal contribution from other ambient noise sources (i.e., minimal interference) and because the measured activity (a Seattle Youth Soccer Association team practice) was similar to what might occur at the Van Asselt athletic field after sunset.

Monitoring Schedule

SLMs near the Van Asselt athletic field were made between 5 p.m. and 10 p.m., October 11, 2022. Measurements at the Brighton Playfield were made between 5:30 p.m. and 8 p.m., October 12, 2022, during a Seattle Youth Soccer Association (SYSA) team practice.

Monitoring Equipment

The measurements at all locations were made using Larson Davis Model LxT Class 1 sound level meters. The meters had been factory-certified within the previous 12 months and were field-calibrated immediately prior to the measurements. The microphones of the meters were fitted with wind screens and set approximately 5 feet above the ground (at a typical listening height). Landau supplemented the measurement data with observations of sound sources that were noted during each measurement.

Noise Measurement Results

Ambient Noise Measurement Results

The primary noise sources at VA-SLM1 (Van Asselt Sound Level Meter 1) were traffic from Interstate 5 (I-5), local traffic on South Myrtle Street, and aircraft noise. The primary noise sources at VA-SLM2 were traffic from I-5 as well as aircraft noise. Table 2 summarizes the range of Leq and Lmax sound levels during the measurement at each location.

Table 2. Existing Sound Levels at Van Asselt School Summary

Location	Time Period	Range of Hourly Sound Levels (dBA)	
		L_{eq}	L_{max}
VA-SLM1	5 p.m. – 10 p.m. October 10, 2022	59 – 62	72 - 83
VA-SLM2	5 p.m. – 10 p.m. October 10, 2022	60 – 65	75 - 85

Existing Athletic Field Measurement Results

The primary noise source at B-SLM3 (Brighton Playfields Sound Level Meter 3) was activity on the playfield, the nearest center of activity being located approximately 140 feet from the measurement location. Minor sources of noise included traffic on nearby roadways (South Juneau Street, 39th Avenue South, and 42nd Avenue South) and aircraft noise. Table 3 summarizes the range of Leq and Lmax sound levels during the measurement.

Table 3. Sound Levels at Brighton Field

Location	Time Period[j]	Range of Hourly Sound Levels (dBA)	
		L_{eq}	L_{max}
B-SLM3	5:30 p.m. – 10 p.m. October 11, 2022	54 – 58	68 – 82

Noise Assessment

Athletic Field Noise Levels at Nearest Residences

The highest hourly L_{eq} noise levels measured at the Brighton Playfield (58 dBA, measured at a distance of 140 feet to the center of the nearest sporting activities, which included noise from the sporting activities, aircrafts, and traffic) was used to characterize noise expected at the Van Asselt athletic field during hours when lighting is required. Accounting for distance to the measured activities, Landau calculated the hourly L_{eq} levels at the two nearest residences to the Van Asselt athletic field. Adjustments for distance were based on an approximate 6-dB reduction per doubling of distance from the approximate location of future sporting activities.[1] Results of these calculations are summarized in Table 4.

Table 4. Distance Attenuation Summary

Location of Nearest Residence to Van Asselt Athletic Field	Distance from Nearest Receiver to Nearest ⅓ of the Athletic Field (feet)	Project Sound Level at Residence (dBA)
North of Athletic Field	280	52
South of Athletic Field	140	58

Noise Impact Assessment

Landau considered potential noise impacts that would result from Project-related increases in noise at residences near the site due to the Project. The assessment was completed assuming that the VA-SLM1 and VA-SLM2 are representative of the nearest residences to the north and south of the Project, respectively. The results are presented in Table 5. As shown, potential increases in noise over ambient conditions are predicted to range between 0 dBA and 2 dBA, depending on the ambient noise levels and the location of the residence.

Table 5. Calculated Increases Over Existing

Location	Range of Measured Existing Sound Levels (dBA) [(a)]	Range of Hourly Sound Levels (dBA)		
		Project Only [(b)]	Cumulative [(c)]	Increase
North of Athletic Field VA-SLM1	59 - 62	52	60 - 62	0 – 1
South of Athletic Field VA-SLM2	61 - 65	58	63 - 66	1 – 2

Notes:

(a) Range in hourly L_{eq} throughout the duration of the noise measurement (5 p.m. to 10 p.m.)

(b) Project-Only sound levels were adjusted based on the distance from the residences to the field.

(c) Cumulative levels represent the existing measured sound levels plus the calculated Project-related sound levels.

[1] For this assessment, and as a conservative approach, Landau assumed that athletic activities would occur within the nearest ⅓ of the athletic field to each nearest residential location.

An increase in noise of 3 dBA or less is generally not discernable in active outdoor environments, such as in the vicinity of the Project. Although athletic-field sounds may be noticeable at times during evening hours when ambient noises are lowest, Landau does not consider this range of sound level increase to be considered a noise impact.

Conclusion

Use of the Van Asselt Athletic Field during hours when lighting is required, up to 10 p.m., is not expected to result in noise impacts at the nearest residences to the field. Projected increases over ambient noise levels would be between 0 dBA and 2 dBA, a range of increase that is below what is commonly perceptible in active outdoor environments. Noise impacts are not predicted, and noise mitigation is not warranted.

This document has been prepared under the supervision and direction of the following key staff.

LANDAU ASSOCIATES, INC.

Kathryn Baker
Senior Project EIT

Kevin Warner
Principal

KPB/KMW/tac
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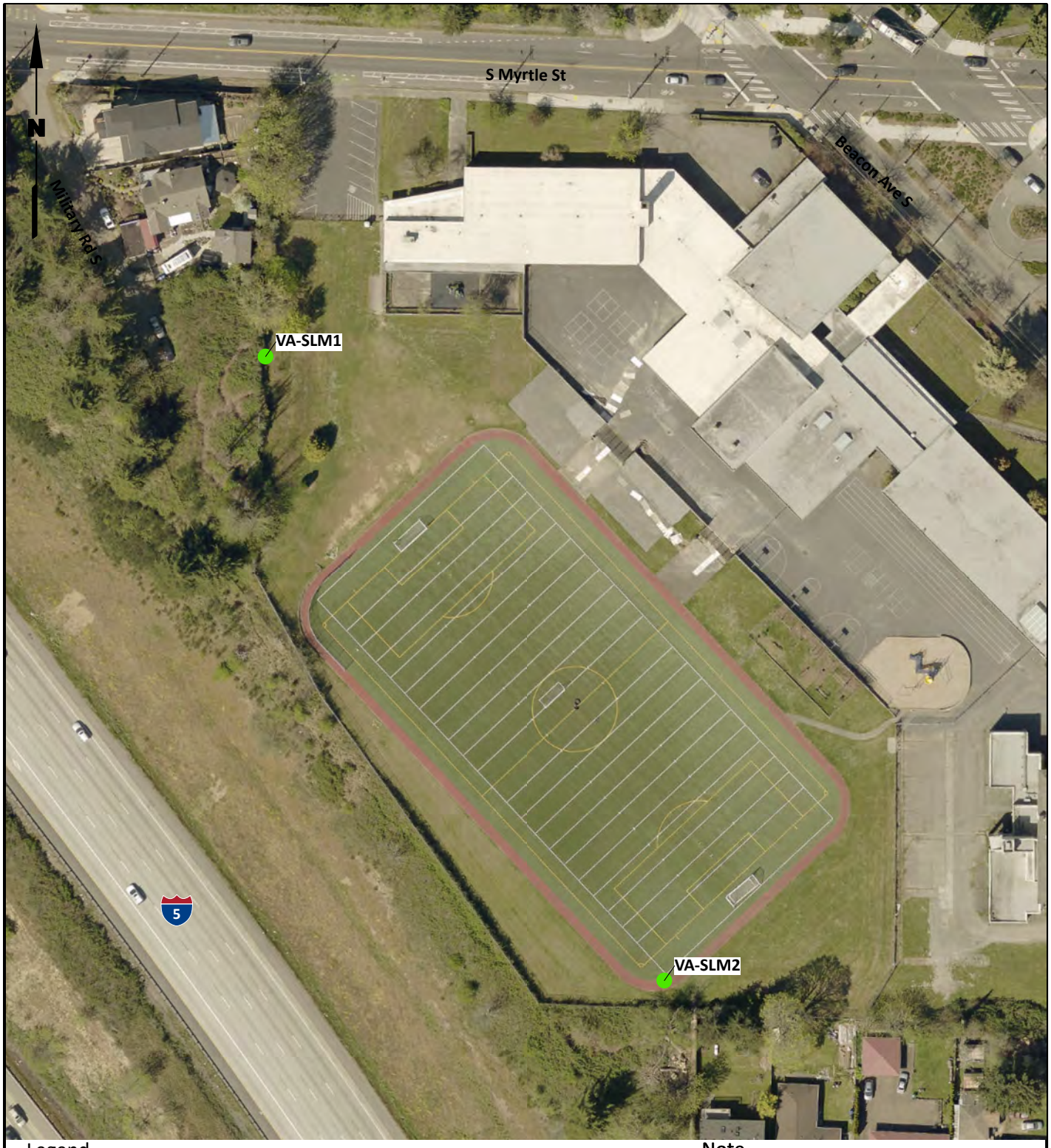
Attachments

Attachment 1: Sound Level Measurement (SLM) Location Figures

ATTACHMENT 1

Sound Level Measurement (SLM) Location Figures



Legend

- SLM Locations

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 100 200

Scale in Feet

Data Source: King County GIS.

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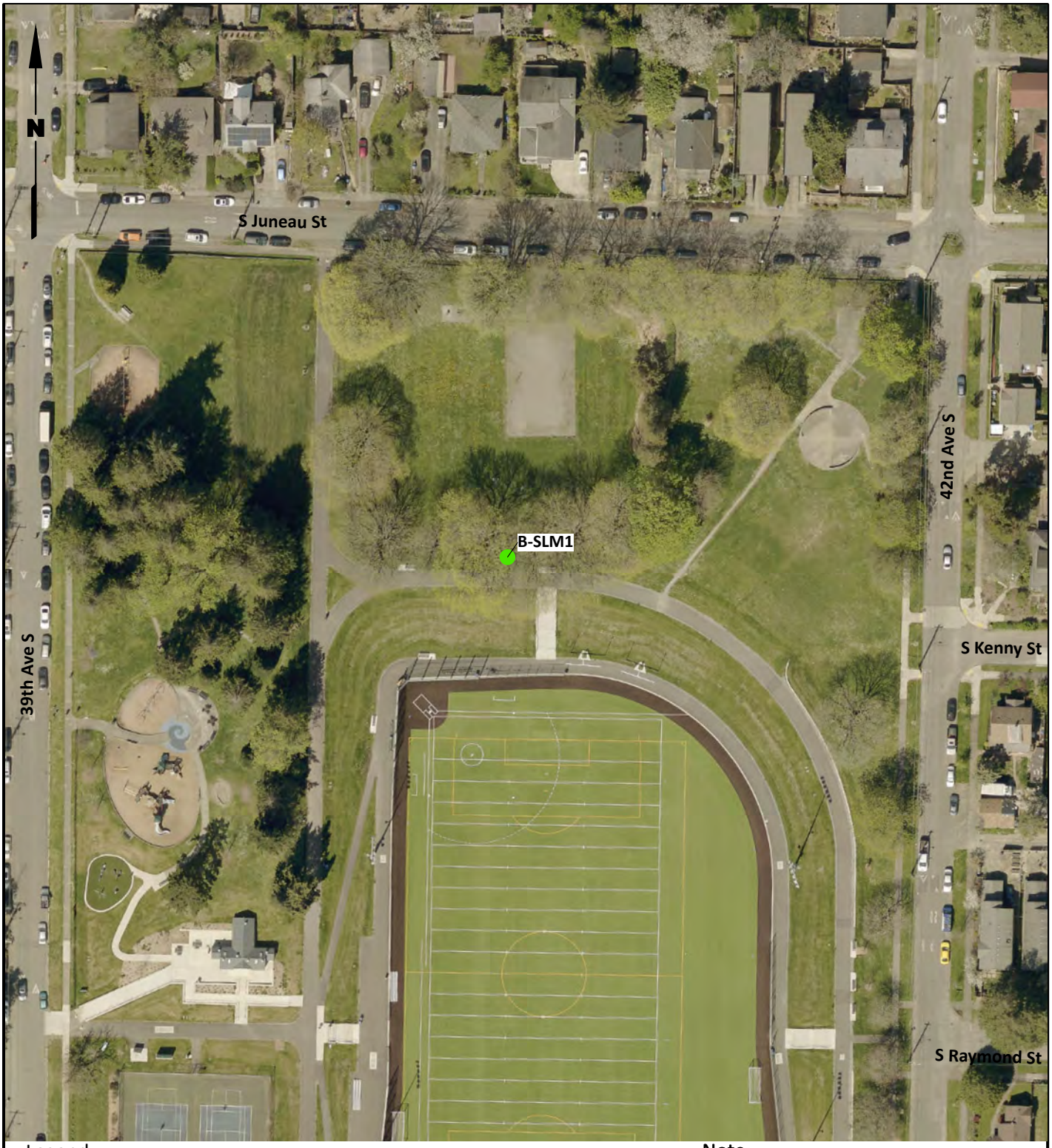
LANDAU ASSOCIATES

Seattle Public Schools Field Lighting Project Seattle, Washington	**Sound Level Measurement (SLM) Locations - Van Asselt School**	Figure 1-1



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- SLM Locations

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0 100 200

Scale in Feet

Data Source: King County GIS.

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LANDAU ASSOCIATES

Seattle Public Schools
Field Lighting Project
Seattle, Washington

Sound Level Measurement (SLM) Locations - Brighton School

Figure 1-2

APPENDIX C

Light and Glare Report

Van Asselt School
Field Lighting

Light and Glare Report

April 17, 2023

Prepared for:

Seattle Public Schools
Capital Projects
Seattle, Washington

Consultant:

Stantec

Proposal

The existing field located within the running track at Van Asselt School is proposed to be lighted.

The design levels for the field lighting are proposed at a Class IV level of play. Class IV is the lowest recommended level listed in RP-8 (Recommended Practice for Sports Lighting) by the illuminating Engineering Society of North America. The soccer\football field is designed to an average maintained lighting level of 29 foot-candles. The lighting system is designed using a .95 design factor to achieve the initial lighting levels.

These lighting design levels meet current practices for both the City of Seattle and Seattle School District for the lighting of athletic fields. The proposed lighting levels will be consistent with recently lighted fields at Whitman Middle School and Jane Addams Middle School.

Existing Codes and Policies

Section 23.51B.002 (Public schools in residential zones) of the Seattle Municipal Code limits the height of lighting standards in Single Family and Lowrise zones. Section D-6-a permits light standards up to a maximum height of 100 feet, "if the Director determines that the additional height is necessary to ensure adequate illumination and that impacts from light and glare are minimized to the greatest extent practicable". In addition, Section 23.46.020 (Light and glare standards) paragraph A of the Seattle Municipal Code also requires that "Exterior lighting be shielded or directed away from adjacent uses". Additional City of Seattle guidelines recommend that athletic field spill light not exceed 0.8 foot-candles initial at residential property lines.

To comply with existing codes an exemption to the height limit is requested. This exemption will ensure adequate illumination and reduce the amount of impacts from light and glare into the neighborhood.

Existing Conditions

A survey of the existing site was conducted on June 14th, 2022. The school site is located within a residential community west of Beacon Avenue South between South Othello Street and South Myrtle Street. The field is located adjacent to residential homes on the north side of South Othello Street. The field is also located immediately adjacent to Interstate 5 on the wets side of the field.

The surrounding area slopes down from north to south. The homes located to the south of the field are at a lower elevation than the football field. The areas near the school site to the east and north are similar in elevation. The school site sits on a bluff immediately adjacent to Interstate 5 at a height of approximately 80' above the road surface. There is some tree and vegetative screening on the south and north sides of the field. The school building provide screening from the field along the east side of the site.


View looking south from the field


View looking west from the field

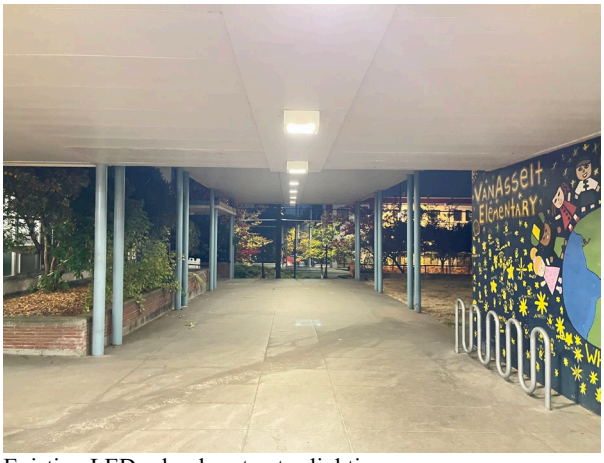
View looking north from the field

View looking northwest from the field

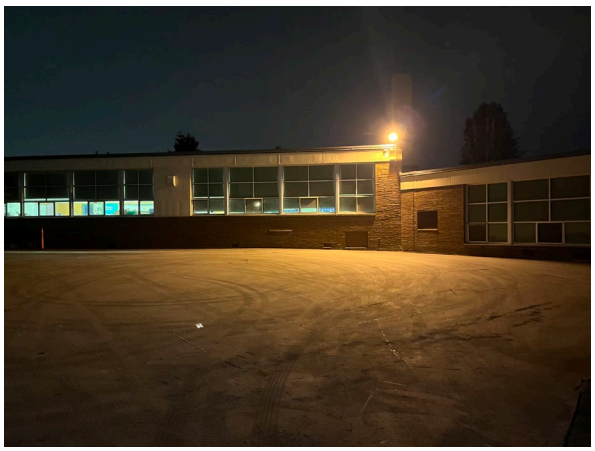
Existing Light and Glare

A survey of the existing lighting in the area was conducted on October 20th, 2022. Light readings were taken on site and on several streets surrounding the field.

The existing light sources on the school site primarily consist of the main school building entry lighting, main school building floodlighting and portable perimeter wall pack lighting.



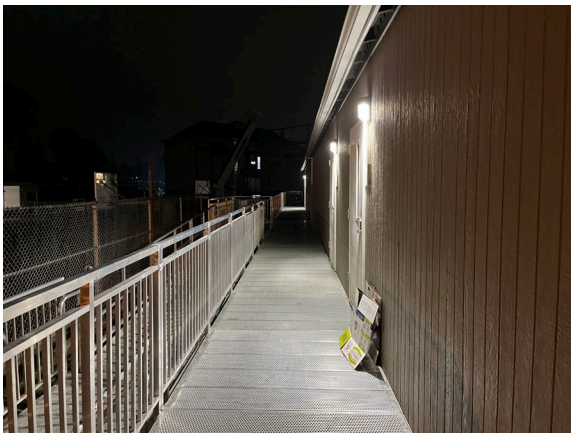
Existing LED school east entry lighting



Existing HID building mounted floodlight lighting

Existing HID building mounted floodlight lighting

Existing HID portable wall pack lighting

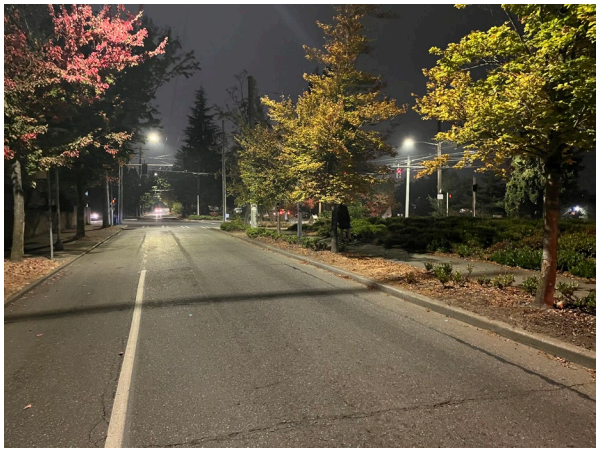


Existing LED portable wall pack lighting

Existing site lighting adjacent to field

The existing light sources surrounding the site are typical for an urban\suburban residential area. The primary component of the lighting is associated with streetlights surrounding the school. The streetlights along Beacon Avenue South and South Myrtle Street are LED cobra head style mounted to existing utility poles at an approximate height of 25' above grade. The residential streetlights along South Othello Street are LED cobra head style mounted to existing utility poles at an approximate height of 20' above grade. The balance of the lighting immediately adjacent to the site is associated with adjacent residential properties with porch\yard lights and interior lighting visible through windows.

Additional lighting in the area is associated with the large amount lighting associated with I5, King County Airport and large commercial\industrial areas located to the west of the site. The lighting consists of high mast highway lighting, high mast floodlighting, streetlighting, high mast industrial yard lighting, parking lot lighting, business lighting etc.



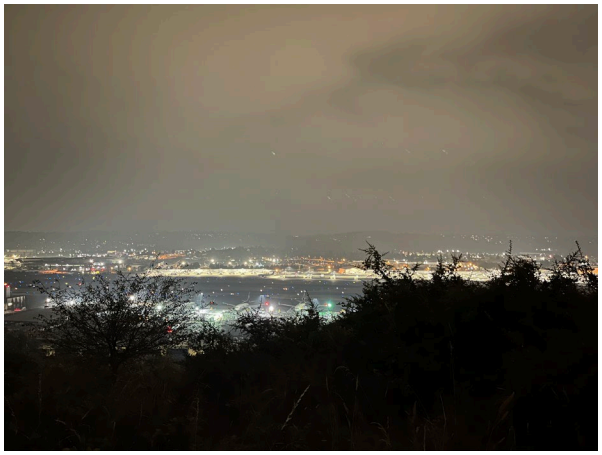
Existing Street Lighting Beacon Avenue South

Existing Street Lighting Beacon Avenue South

Existing Intersection Lighting Beacon Avenue South

Existing Street Lighting South Myrtle Street

Existing Homes South Othello Street



Existing Industrial Area and Airport Lighting West of Site

Various measured lighting levels onsite and surrounding the site are as follows (Foot-Candles).

School Entry Lighting	8.1 ft-c (Max Horizontal)
School Play Court Lighting	19.0 ft-c (Max Horizontal)
Portable Building Lighting (HID)	7.0 ft-c (Max Horizontal)
Portable Building Lighting (LED)	53.0 ft-c (Max Horizontal)
Streetlight – Beacon Avenue South	3.6 ft-c (Max Horizontal)
Streetlight – Beacon Avenue South Crosswalk	3.2 ft-c (Max Horizontal)
Streetlight – South Othello Street	1.2 ft-c (Max Horizontal)

Proposed Equipment

The proposed lighting for the football field consists of 28 watt shielded LED floodlights. The floodlights will be mounted on four galvanized steel poles surrounding the field. The poles will be 70' tall. Each of the poles will have one additional floodlight mounted at a height of 15'above field grade and aimed above the field. One additional low wattage "full cutoff" area light will be mounted at a height of 30' above grade on the two poles on the east side of the field.

Seattle Public Schools has proposed to use an athletic field lighting system designed to mitigate the negative impacts of light and glare. The proposed system consists of the latest technology available on the market for shielded LED floodlights designed for the lighting of athletic fields.

The use of high efficiency LED arrays provide more precise control of light to be delivered to the field. The reflector and shielding design further reduce the amount of light transmitted off site and into the atmosphere. The floodlights utilize an additional external visor mounted to the floodlight that extends in front of the floodlight. The floodlight design is similar to "full cutoff" style lights as they dramatically limit the amount of light that is emitted above the plane of the floodlight. The proposed lighting system is similar to recently lighted fields at Whitman Middle School and Jane Addams Middle School.

LED Floodlight used at Whitman Middle School

Analysis

The proposed lighting system will increase the amount of light in the area during evening hours. The primary impacts of the lighting system are direct glare, reflected glare, spill light (light trespass), and "sky glow".

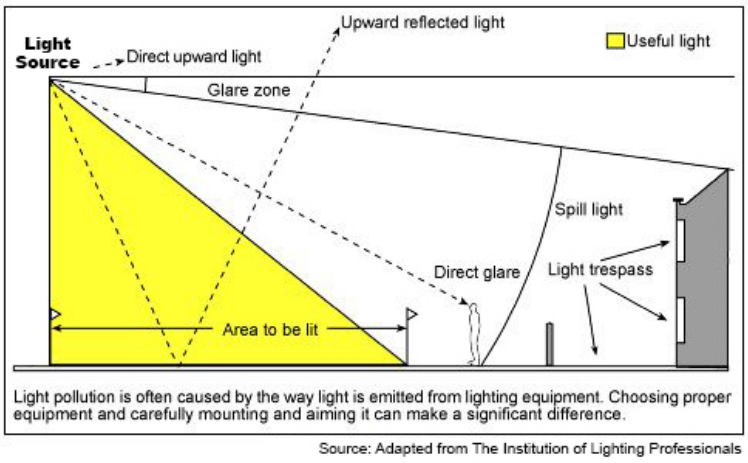


Diagram illustrating Direct-Glare, Spill Light and Light Trespass

GLARE

The athletic field lighting system will generate visible glare. The primary sources of glare from the proposed lighting system consist of direct glare from the floodlights and reflected glare (luminance) off the poles, floodlights, and surfaces around the playing fields.

The amount of glare that is present correlates directly to how much of the floodlight lamp and reflector can be observed. The intent of Seattle Municipal Code Section 23.24.020 is to have floodlight luminaires directed as far down as possible to reduce the amount of glare that is visible from off-site locations.

To reduce the amount of glare that is visible off-site the floodlights will need to be mounted higher than 30 feet. At a height of 30 feet the visibility of the high wattage LED's and reflectors from the adjacent residences is

excessive. With the increased mounting heights floodlights will have steeper aiming angles resulting in more effective use of the floodlight shields. A significantly smaller portion of the floodlight reflectors and LED diodes will be visible off site with the increased height.

Direct glare would be visible from all directions overlooking the site, depending on the distance of the observer from the field, orientation of the floodlights, distribution of intervening buildings, terrain or vegetation that would block the glare. The impacts of direct glare are extremely difficult to quantify, as varying conditions such as existing ambient light levels and current atmospheric conditions will vary the impact. Elevation differences between the level of the sports field lights and the viewpoint is a key determinant in the existence of glare at any given viewing location.

To maximize glare reduction, the owner is providing additional mitigation with the use of "full cutoff" style LED floodlights that provide the most advanced light control and shielding currently available in the sports lighting industry. Additional reduction in direct glare is also provided by internal shielding of the LED diodes. The additional shielding nearly eliminates direct view of the very bright LED's from off-site viewing locations.

Off-site exposure to low levels of direct glare is primarily to the four adjacent residential properties located on the south side of the field. These properties are close to the fields at a lower elevation with direct exposure to the light poles and floodlight assemblies. The direct glare visible at these residences is primarily from light bouncing off the internal polished reflecting surface of the floodlights. There are existing evergreen and deciduous trees located between the field and these properties that will provide some reduction in visible direct glare.

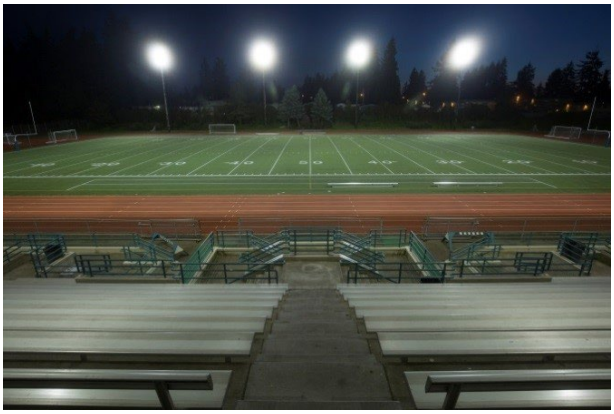
The three residential properties to the north overlooking the site will have minimal to low exposure to direct glare. This is due to the fact that these residences are at a slightly higher elevation to the field. These areas have reduced direct views into the floodlights with more effective use of the external shields on the floodlights looking from this location.

Residential properties that are not adjacent to the field and properties located farther away from the field will have minimal to no direct glare impacts.

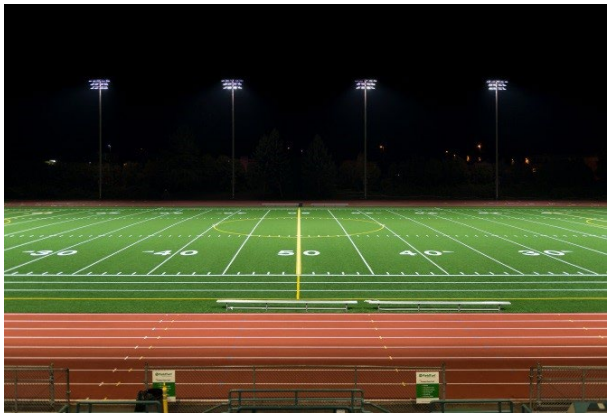
Reflected glare would be visible from all directions overlooking the site, depending direct views into the site, elevation\exposure in relation to the field and track surfaces, exposure to poles\floodlights, distribution of intervening buildings, terrain or vegetation that would block the glare. Of the surfaces that are visible from off site locations, the synthetic athletic field and rubberized track surfaces would be the greatest contributor to reflected glare. The reflected light off the floodlight housings, floodlight visors and poles would be a lesser contributor.

The three residential properties to the north overlooking the site will have the greatest amount of exposure to reflected glare. Reflected glare will be evident to these properties that have direct exposure to the field\track surfaces, adjacent grass\pavement surfaces, light poles, and floodlight assemblies. The main component of the impact is the light reflected off the synthetic turf field surface and rubberized track surface. The existing topography and vegetative screening limits direct views of the field from these locations.

Residential properties that are located farther away from the field or situated below the field will have low to minimal reflected glare impacts. These properties will have very limited to no direct views of the playing surface due to their location away from the fields. The reflected glare impact associated with the poles and floodlights is much less from more remote viewing points, as the impact is reduced at greater distances. This is true even though reflected glare from the floodlights and tops of the poles will be visible at greater distances due to their elevation above the field.



Glare from unshielded floodlights (Edmonds-Woodway HS)



Direct glare reduction with use of similar LED floodlights

The increased mounting heights for the athletic field lighting poles will dramatically decrease the overall amount of glare visible from off-site locations as compared to using 30' pole height. The use of the latest generation of shielded floodlights will dramatically reduce the amount of visible glare compared to standard shielded floodlighting systems. It is critical that taller poles are used to minimize glare as much as practical. At 30 foot mounting heights the surrounding residences will be more fully exposed to excessive levels of direct glare from the floodlights.

SPILL LIGHT

The athletic field lighting system will generate minimal amounts of spill light.

The increase in pole height from 30 feet to 70 feet above the playing field tall will dramatically reduce the amount of spill light generated by the lighting system. The higher pole heights allow the floodlights to be aimed down to the athletic field and away from the adjacent properties. This height also provides for greater effectiveness of the internal\external shielding on the floodlights to control the emitted light and prevent light escaping beyond the site.

The increased mounting heights increase the angle of aiming below the horizontal level of the floodlights. At a mounting height of 30 feet this project would require aiming angles of 10.0 degrees (worst case) and 31.00 degrees (best case) below the horizontal plane of the floodlight. The increased mounting height to 70 feet will provide for aiming angles of 22.4 degrees (worst case) and 54.5 degrees (best case) below the horizontal plane of the floodlight.

The use of steeper aiming angles allows for less direct light to be delivered beyond the boundaries of the playing the surface. The external shielding blocks more direct light and more light is delivered to the field with the use of increased mounting heights. The proposed taller mounting heights are typical for this application and similar to many existing installations throughout the City. The use of shorter mounting heights is typical to the lighting of driving ranges which requires that light is delivered over hundreds of feet down range to light the back of a golf ball to distances over 300 feet.

The vertical spill light from the field lighting has been calculated along the adjacent residential property lines on the south side of the site. The values are calculated at a height of three feet above field grade and are calculated in foot-candles. The calculated light readings do not account for limited quantity of existing trees and vegetation on site and along the street that will provide some screening to reduce spill light at the property lines.

At the standard mounting height of 70 feet above the field the maximum amount of measurable light delivered along the south residential property line is 0.1 foot-candles. At the non-standard mounting height of 30 feet above the field the maximum amount of measurable light delivered along the west property line is 5.1 foot-candles.

The increased mounting height will dramatically reduce the maximum spill light at the residential property lines as compared to using 30' pole height. Increased mounting height also reduces spill light to meet recommended practice of maximum of 0.8 foot-candles set by the City of Seattle.

SKY GLOW

The athletic field lighting system will generate a minimal amount of "sky glow". The "sky glow" impacts will be located at locations near the fields.

The amount of "sky glow" that is visible from a lighting system is difficult to quantify. There is no current method to calculate "sky glow" but it is recognized that there is a direct correlation to the amount of direct and reflected light that is emitted into the atmosphere. The amount of visible "sky glow" is dependent on a multitude of factors. Several factors include the amount of ambient light that exists, darkness of the night sky, amount of moonlight, atmospheric conditions, level of cloud ceiling, amount particulate matter, location of the observer and age of the observer.

To reduce the amount of "sky glow" that is visible the floodlights will need to be mounted higher than 30 feet. At a height of 30 feet the amount of direct light emitted into the atmosphere is excessive. With the increased mounting heights floodlights will have steeper aiming angles resulting in more effective use of the external shields. The majority of the total light output will be directed down to the field with the increased mounting height.

To maximize "sky glow" reduction the owner is providing additional mitigation with the use of "full cutoff" style LED floodlights that provide the most advanced light control and shielding currently available in the sports lighting industry. The use of this equipment will also block a significant amount of direct light that is emitted into the atmosphere.

Based on the existing condition of existing high ambient light levels, "sky-glow" currently evident in the area and the limited impact expected for the project, the impact of the project on "sky-glow" in the surrounding area will be minimal. "The appearance of "sky-glow" will be very minor with heavy low overcast skies and be most prevalent during conditions of dense fog.

Due to the dramatic reductions in the amount of up-light generated there will be a zone of darkness above the field. This creates a safety hazard for football play to safely track balls kicked high into the air. This will require the use of up-lights for football use similar to the up lights used at the recently lighted fields at Whitman Middle School and Jane Addams Middle School. One floodlight will be mounted at a height 16' above the field on each pole and be aimed above the field. These will provide the minimal amount of light necessary for safe play.

The increased mounting heights for the athletic field lighting poles will decrease the overall amount of "sky-glow" visible as compared to using 30' pole height. The use of the latest generation of shielded floodlights will dramatically reduce the amount of direct light emitted into the atmosphere compared to the older shielded floodlighting systems. It is critical that taller poles are used to minimize "sky-glow". The amount of "sky-glow" visible will be localized to the area above the field and immediate vicinity. The amount of "sky-glow" generated will typical of recently lighted fields using LED floodlights at Whitman Middle School and Jane Addams Middle School and will be much less as compared to the amount generated using 30' poles.

<u>Controls</u>

The new athletic field lighting system will be connected to a fully programmable control system with remote operation. There will be separate switches installed to manually operate the lights at the site if necessary. The field lights will be on a separate lighting zone with a separate switch. This will allow the field lights to be turned off after play is completed. The area lights are on a separate zone and will remain on for a short time after each event to provide ample light for egress from the site.

APPENDIX D

Cultural Resources Assessment

(On-File with Seattle Public Schools)

APPENDIX E

Transportation Technical Report

TRANSPORTATION TECHNICAL REPORT

for

Athletic Field Lighting at Van Asselt School

PREPARED FOR:

Seattle Public Schools

PREPARED BY:

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April 6, 2023

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1. INTRODUCTION

This report presents the transportation impact analysis for the Seattle Public Schools' (SPS) proposed athletic field lighting project at Van Asselt School. The scope of analysis and approach were based on extensive past experience performing transportation impact analyses for numerous SPS projects in Seattle and athletic facility improvement projects throughout Western Washington. This report was prepared to support the SEPA Checklist for the project. It documents the existing transportation conditions in the site vicinity, presents estimates of project-related traffic, and evaluates the anticipated impacts to the surrounding transportation system.

1.1. Project Description

SPS plans to install lights at Van Asselt School's athletic field located west of the school building. The school is located at 7201 Beacon Avenue S in the Beacon Hill neighborhood of Seattle. The following sections describe the school site and the proposal.

1.1.1. Existing Site

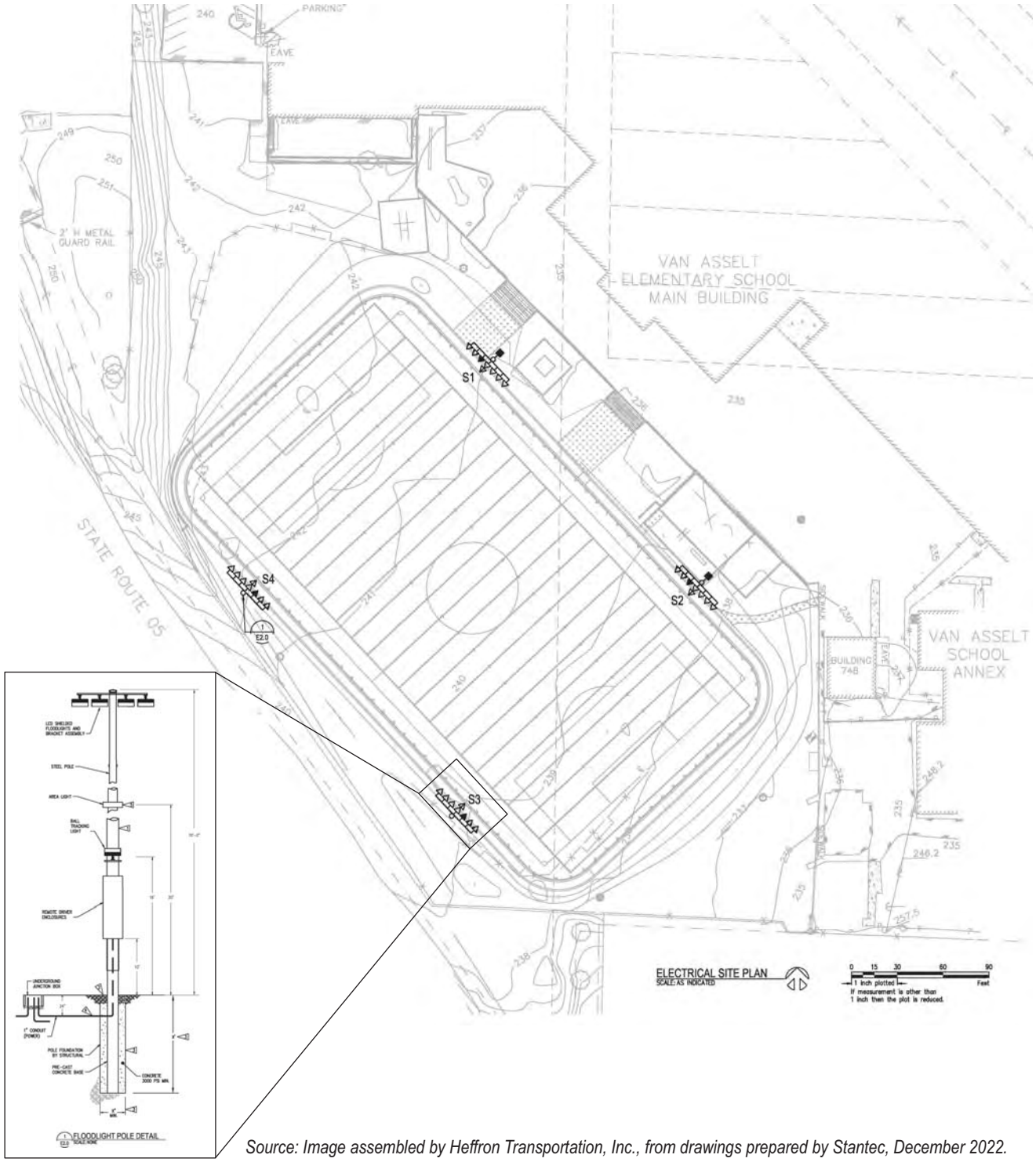
The Van Asselt School site is bounded on the east by Beacon Avenue S, on the north by S Myrtle Street, on the west by Interstate-5 (I-5), and on the south by residential properties. The school building and the existing surface parking lot primarily occupy the northeastern two-thirds of the site; athletic fields are located on the southwestern third of the site. The school's existing outdoor athletic facilities consist of a synthetic-turf football/soccer field surrounded by a narrow running track. At this time of this report, the site was under construction to modernize and expand the school building and improve the shared access driveway at the southeast corner of the site. Construction at the southeast portion of the site will result in a new small parking lot and circulation loop. After construction, the site will still be accessed by the two existing driveways on S Myrtle Street and one access driveway on Beacon Avenue S that will be shared with the adjacent Beacon Avenue Church of God. The site's eastern frontage on Beacon Avenue S is expected to remain signed for school bus load only from 7:00 A.M. to 4:00 P.M.

1.1.2. Proposed Site Changes

SPS proposes to install lights at the existing athletic field to be available for use by fall 2024. Figure 1 shows the site plan with the proposed locations of field lights. The proposal would not change school enrollment or any other facilities on the site, but would allow increased use of the athletic field for scholastic and non-scholastic recreational activities scheduled to end by 9:45 P.M., with lights automatically turned off at 10:00 P.M. Usage levels of the facilities are expected to increase with the added ability to hold practices and some competitive games later in the day during the school year.

Although not currently planned, the lights could be used in the morning (after 7:00 A.M.) for scholastic practices. Based on the recently approved joint-use agreement[1] between SPS and Seattle Parks and Recreation (Parks), District-identified fields are prioritized for the District's athletic programs on weekdays after school until 7:00 P.M. throughout the school year (August 1 until the last day of school). On Saturdays, this priority continues for District programs from 8:00 A.M. to 12:00 P.M.; middle school activities have Saturdays reserved from 8:00 A.M. to 4:00 P.M. As a result, the increase in field use due to the lighting project would likely result from a combination of added scholastic (until 7:00 P.M.) and non-scholastic recreational athletics scheduled through Parks such as youth and adult soccer, recreational football, lacrosse, and ultimate (frisbee), occurring after school-use from 7:00 until 9:45 P.M.

[1] *An Agreement for the Joint Use of Facilities Between Seattle School District No. 1 and City of Seattle Parks and Recreation 2022 – 2027 Jointly Prepared by: Seattle School District No. 1 and Seattle Parks and Recreation*, Approved Sept. 14, 2022.



Source: Image assembled by Heffron Transportation, Inc., from drawings prepared by Stantec, December 2022.

Van Asselt School
Athletic Field Lighting

Figure 1

Site and Lighting Plan

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2. BACKGROUND CONDITIONS

This section presents the existing and future conditions without the proposed project. The impacts of the proposal project were evaluated against these base conditions. Year 2024 was selected as the future horizon year for the analyses, because this is when the field improvement and lighting project is scheduled to be completed, and athletic activities could begin occurring later in the evenings. For comparison, and to provide an analysis of potential new traffic and parking impacts, year 2024 without-project conditions assume the existing field would remain unlit. The following sections describe the existing roadway network, traffic volumes, traffic operations (in terms of levels of service), traffic safety, transit facilities, non-motorized facilities, and parking.

The following four off-site intersections plus site access driveways were selected for study based on the expected travel routes used to access the off-street and nearby on-street parking.

- S Myrtle St / Beacon Ave S Northbound
- S Myrtle St / Beacon Ave S Southbound
- S Othello St / Beacon Ave S Northbound
- S Othello St / Beacon Ave S Southbound

Beacon Avenue S is a boulevard with a median separating northbound and southbound directions, and its intersections with S Myrtle Street were evaluated as separate, but coordinated, intersections. The intersections at S Othello Street are stop-sign controlled and also evaluated separately.

2.1. Transportation Network

2.1.1. Existing Network

The surrounding area predominantly consists of single-family residences, with some institutional (church and community center) uses. Roadway classifications and speed limits are based on the City's *Street Classification Map*.[2] Seattle's default arterial speed limit is 25 miles per hour (mph), unless otherwise posted; the default non-arterial speed limit is 20 mph. The site location and vicinity are shown on Figure 2. The following describes key roadways in the site vicinity.

Beacon Avenue S is a north-south boulevard-style arterial that connects between the Beacon Hill neighborhood and neighborhoods to the north and south. North of S Myrtle Street, it is designated as a Minor Arterial; south of S Myrtle Street, it is a Collector Arterial. Near the school, there is a 20-mph school zone enforced when beacons flash. The roadway has one travel lane in each direction with turn lanes added at major intersections. Northbound and southbound segments are separated by a 50-foot-wide median. Near the site the median has angled parking accessed from driveways (connected to each direction of Beacon Avenue S) at the north and south ends of a parking area with southbound flow through the parking area. There is a multi-use path within the median and sidewalks on the outsides of travel ways in both directions. Parallel parking occurs on the outside curb (right side) of both street segments.

S Myrtle Street is an east-west Principal Arterial that connects between Swift Avenue west of the site, and turns into S Othello Street about a half-mile to the east. It has one travel lane in each direction and widens to two lanes in each direction at Beacon Avenue S. It has curbs, gutters, and sidewalks on both sides with a protected bike lane on each side that transition into sharrows[3] at Beacon Avenue S. Its Beacon Avenue S intersection is signalized. Near the site, there is a 20-mph school zone with flashing beacons.

S Othello Street is a local access street in the vicinity of the site, primarily providing access for residential development. It has no curbs, gutters, or sidewalks and parking occurs intermittently within gravel and grass shoulders of varying widths.

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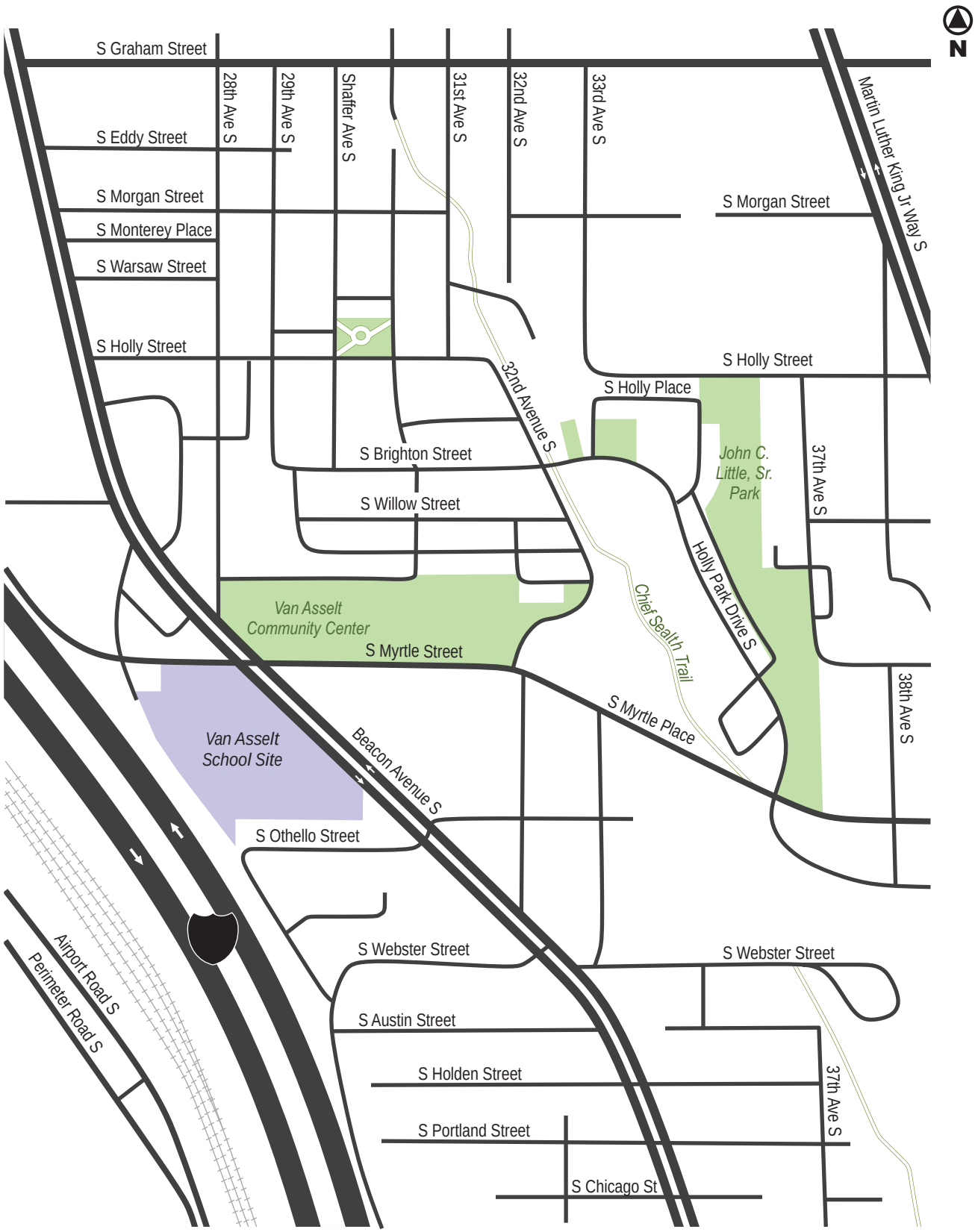
2 Seattle Department of Transportation (SDOT), Street Classification Maps (http://seattlecitygis.maps.arcgis.com), 2022.

3 A "sharrow" is a shared-lane pavement marking that is placed in the roadway lane to highlight the shared space; however, unlike a bicycle lane it does not delineate a particular part of the roadway that a bicyclist should use.



Van Asselt School
Athletic Field Lighting

Figure 2

Site Location and Vicinity

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2.1.2. Planned Improvements

The following documents were reviewed to determine if any planned transportation improvements could affect the roadways and intersections near Van Asselt School by 2024 when the field lighting project is planned to be completed.

City of Seattle's 2022-2027 Capital Improvement Program (CIP)[4] – No improvements to the transportation network were identified in the site vicinity.

Adopted Seattle Bicycle Master Plan (BMP)[5] – The plan proposes future off-street facility along the Beacon Avenue corridor, in addition to the protected bike lanes along S Myrtle Street / S Othello Street that were completed in 2019. The *Seattle Bicycle Master Plan – 2021-2024 Implementation Plan*[6], which defines the priorities of the projects, does not identify any additional projects for implementation in the site vicinity. Seattle Department of Transportation (SDOT) staff indicated that, although the Beacon Avenue Protected Bike Lane (PBL) project does not currently have full funding or an implementation schedule, it should be included as part of the 2023-without- and with-project analyses.[7]

Seattle's Neighborhood Greenway Network[8] – Neighborhood greenway information provided by SDOT indicates no additional greenways currently in design or planning stages in the site vicinity.

Levy to Move Seattle – Workplan Report[9] – This document outlines SDOT's workplan to deliver citywide transportation projects and services funded in part or in full by the *Levy to Move Seattle* (approved by voters in 2015). The nine-year workplan (2016-2024) documents achievements and challenges and sets the agency's plan for future years. There are no projects defined in the site vicinity.

Your Voice, Your Choice[10] – The project site is located in District 2 of SDOT's participatory budgeting initiative, in which Seattle residents decide how to spend a portion of the City's budget on small-scale park and street improvements. At the time of review, there were no upcoming projects defined in the site vicinity.

The Beacon Avenue PBL project would result in signal operational changes and possibly channelization changes at the S Myrtle Street / Beacon Avenue S intersection. Therefore, preliminary operational design alternatives provided by SDOT were incorporated into the intersection modeling of future conditions with and without the athletic field lighting project. None of the other planning documents above included any transportation improvements that would affect the roadway network operations or intersection capacity within the study area by 2024.

2.2. Traffic Volumes

2.2.1. Existing Background Traffic Volumes

Weekday PM peak hour and early evening turning movement traffic counts were conducted at the study area intersections on Tuesday, October 11, 2022. All counts were performed from 4:00 to 8:00 P.M. and include the period in which the proposed field lights could result in increased traffic at the school site. The count data indicate that the PM peak hour volumes during the four-hour count period occurs from 5:00 to 6:00 P.M. When compared to counts performed by SDOT in June 2018, the 2022 volumes are

4 City of Seattle, 2022.
5. City of Seattle, March 2015.
6 SDOT, May 2021.
7 Email communication, J. Marek, SDOT, January 21, 2021.
8 https://www.seattle.gov/transportation/projects-and-programs/programs/greenways-program, Map updated January 24, 2020, Accessed October 2022.
9 SDOT, November 2018.
10 City of Seattle, Your Voice, Your Choice, https://www.seattle.gov/transportation/projects-and-programs/programs/pedestrian-program/yvyc-program, accessed October 2022.

about 96% of the pre-pandemic levels, likely reflecting some continued work-from-home patterns that may become permanent. The turning movement counts at the S Myrtle Street / Beacon Avenue S intersection show that arterial volumes decline considerably after the commuter PM peak hour (down 19% in the 6:00 to 7:00 P.M. hour and down by 34% in the 7:00 to 8:00 P.M. hour). Figure 3 presents the existing (2022) PM peak hour and early evening (6:00 to 7:00 P.M.) traffic volumes.

Based on observed traffic patterns and schedules for other lighted athletic fields, participants and spectators at the fields may arrive or depart the site during both the commuter PM peak hour and the 6:00 to 7:00 P.M. hour. These are often the time periods when scholastic athletics (such as soccer practices) finish and non-scholastic community uses begin. Therefore, based on the count data collected for this analysis and typical lighted athletic field usage patterns, the commuter PM peak hour and the 6:00 to 7:00 P.M. hour were selected for detailed operational analysis. As noted previously, it is possible that the field lights could be used in the morning for scholastic practices; however, there are no current plans for this use. Potential traffic impacts of morning field use are expected to be minimal because of the limited participants (students only, no spectators) and limited number of days that lights would be needed.

2.2.2. Existing Site-Related Traffic Volumes

As described, Van Asselt School is currently under construction while concurrently occupied as an interim elementary school site for Kimball Elementary School. Since both construction workers and most of the Kimball Elementary School population typically leave the site by or before 4:30 P.M., the site currently generates very little traffic during the commuter PM peak hour. Counts of the school's main parking lot site access driveway on S Myrtle Street indicated only two exiting vehicle trips during the PM peak hour and three during the early evening hour.

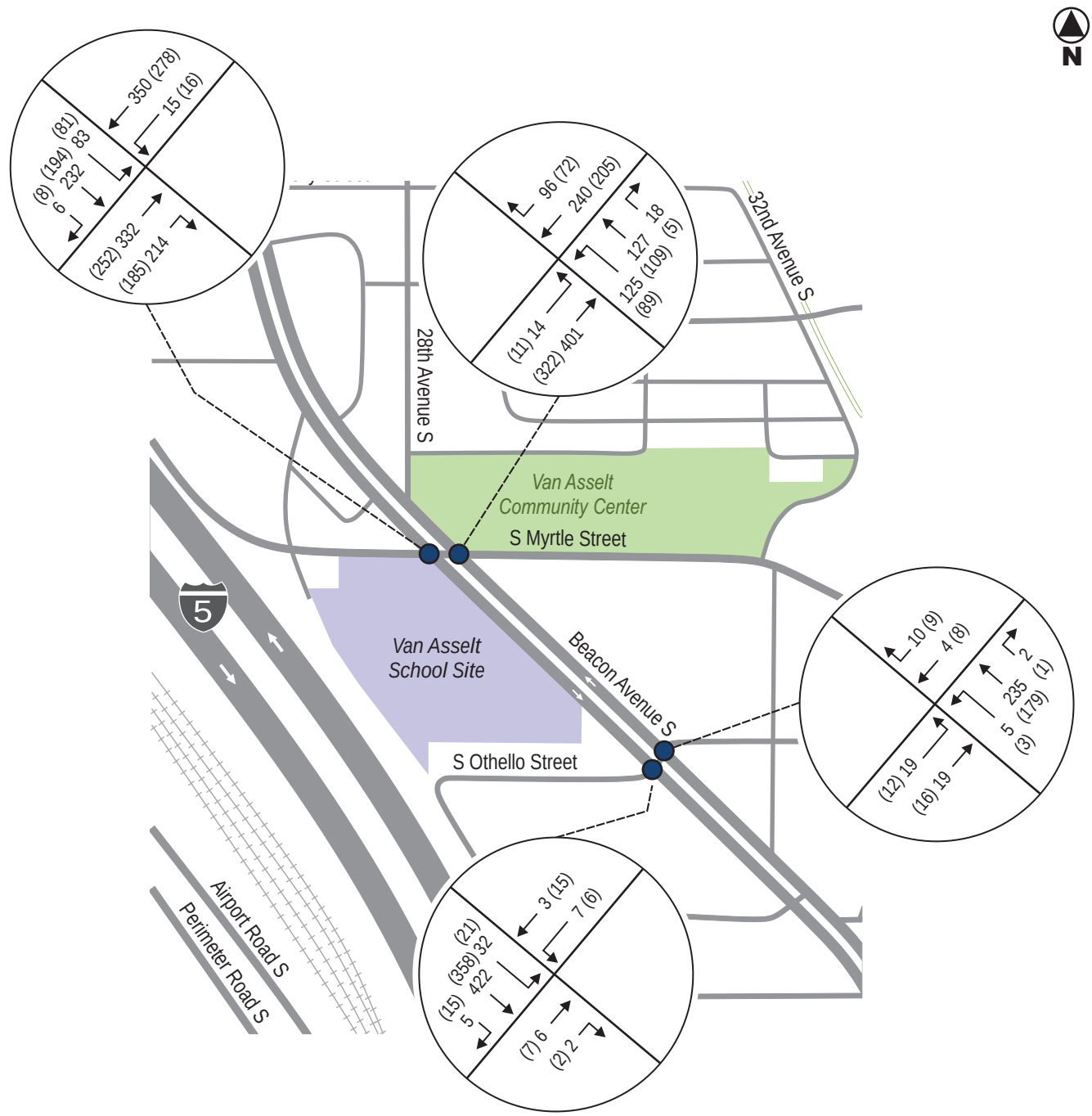
2.2.3. Forecast Without-Project Traffic Volumes

The Van Asselt School field lighting project is expected to be completed by fall 2024. As described previously, current PM peak hour volumes are about 96% of the pre-pandemic levels. Prior to the pandemic historical traffic counts conducted by SDOT between 2010 and 2017 on S Myrtle Street, west of Beacon Avenue S showed that traffic decreased over that period. However, some new residential and commercial development in the larger vicinity could contribute to increased traffic in the study area. To account for this potential growth and a continued rebound in traffic from pandemic conditions, a compound annual growth rate of 1% was applied for two years to reflect volumes in 2024.

In addition, in the coming years, the site will be used as an interim location for middle schools while their buildings are renovated or replaced. Traffic generation by middle schools during the PM peak hour and early evening hour on non-event nights can be related to after-school student activities or athletics, and may include some staff leaving for the day. However, they also are often related to community use of school facilities (e.g., use of the assembly or meeting spaces for groups such as Boy Scouts and Girl Scouts) or athletic fields.

The Seattle Department of Construction and Inspections' (SDCI) Property and Building Activity permit map was also reviewed to determine if any future development projects are planned that could generate additional traffic in the project study area. Based on that review, one pipeline-development project, still under construction, was identified at 7100 Beacon Avenue S, across Beacon Avenue S from the school site. According to permitting documents available from SDCI, the development will have 15 residential units. Potential new traffic generated by that project was included in the City's land use decision[11]; no traffic impact analysis was required by the City due to its relatively small size. Traffic that could be generated by a middle school expected to occupy the Van Asselt School site in 2024 was also added. Figure 4 shows the forecast 2024-without-project PM peak hour and early evening hour traffic volumes.

[11] City of Seattle, *Land Use Decision for SDCI Project #3025996*, December 2, 2019.



KEY

- Study Intersection
- XX PM Peak Hour Volume
- (XX) Early Evening Hour Volume

Van Asselt School
Athletic Field Lighting

Figure 3
Existing (2022) Traffic Volumes
PM Peak and Early Evening Hours

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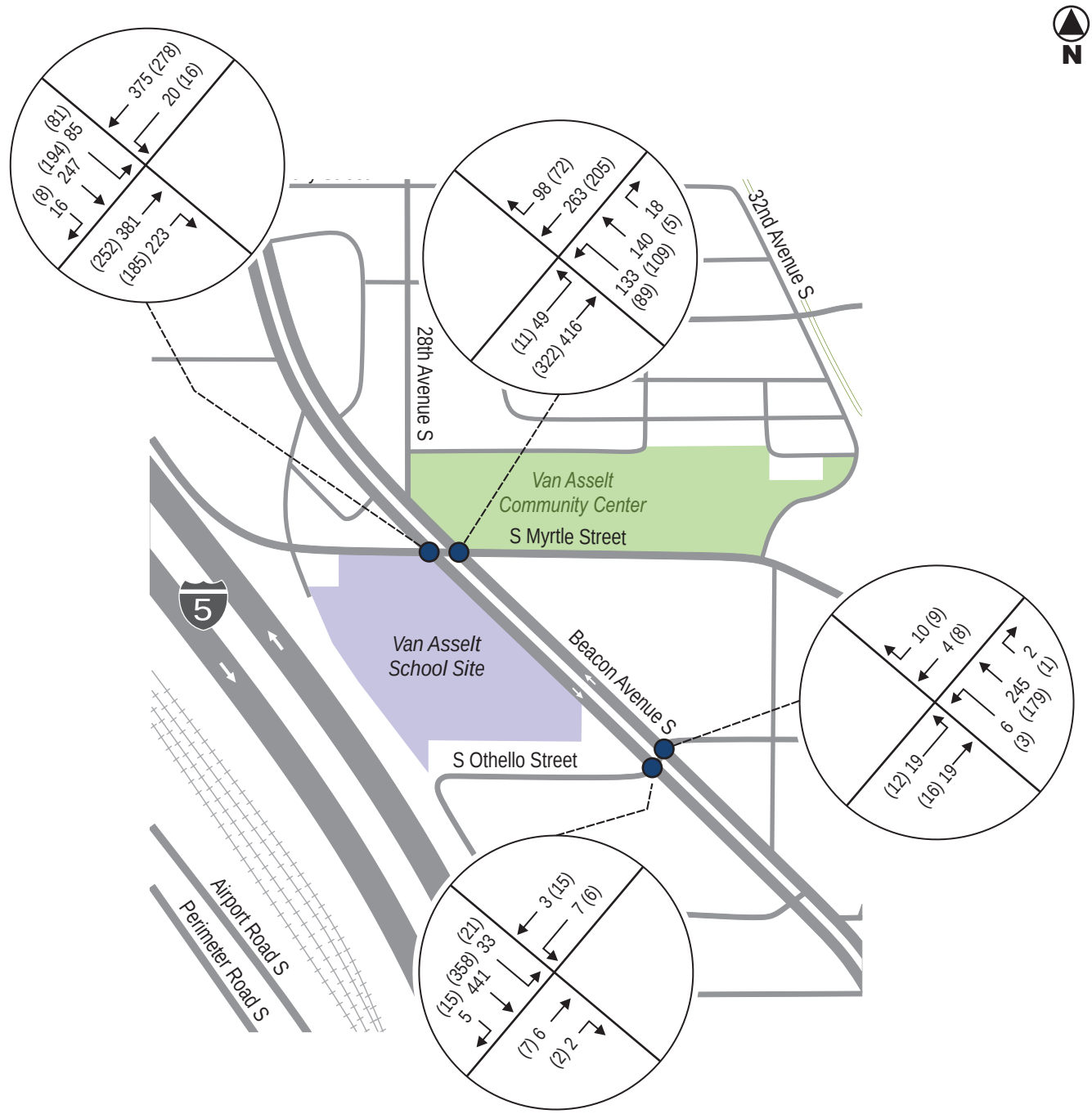

KEY

- Study Intersection
- XX PM Peak Hour Volume
- (XX) Early Evening Hour Volume

Van Asselt School
Athletic Field Lighting

Figure 4
Forecast-2024-Without-Project Traffic Volumes
PM Peak and Early Evening Hours

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2.3. Level of Service

Level of service (LOS) is a qualitative measure used to characterize traffic operating conditions. Six letter designations, "A" through "F," are used to define level of service. LOS A is the best and represents good traffic operations with little or no delay to motorists. LOS F is the worst and indicates poor traffic operations with long delays. The City of Seattle does not have adopted intersection level of service standards; however, project-related intersection delay that causes a signalized intersection to operate at LOS E or F, or increases delay at a signalized intersection that is projected to operate at LOS E or F without the project, may be considered a significant adverse impact, if increases are greater than 5 seconds. The City may tolerate LOS E or F conditions for automobiles at signalized intersections where physical constraints limit opportunities for widening or where it has established priority for other modes such as transit, pedestrian, or bicycle movements. The City may also tolerate delays in the LOS E or F range at unsignalized intersections where changes such as conversion to all-way-stop-control or signalization are not applicable or desirable.

Levels of service for the study area intersections were determined based on methodologies established in the *Highway Capacity Manual (HCM), 6th Edition*[12] using the *Synchro 11* analysis software. Appendix A summarizes level of service thresholds and definitions for signalized and unsignalized intersections. The modeling assumptions for existing conditions, including signal timing, phase splits, and channelization for the S Myrtle Street / Beacon Avenue S intersections were provided by SDOT.[13] The modeling assumptions for 2024-without-project conditions were modified to reflect implementation of the Beacon Avenue PBL project[14] and to reflect SDOT's new policy for signal timing, which codifies support for mobility while minimizing delay to pedestrians.[15] The models also include Leading Pedestrian Intervals (LPIs) as directed by SDOT staff. Table 1 summarizes existing and forecast 2024-without-project levels of service at the study-area intersections for morning and afternoon peak hours.

Table 1. Level of Service Summary – Existing and 2024-Without-Project Conditions

Intersections	PM Peak Hour (5:00–6:00 P.M.)				Early Evening Hour (6:00–7:00 P.M.)			
	Existing		2024 w/o Project		Existing		2024 w/o Project	
Signalized	LOS [1]	Delay [2]	LOS	Delay	LOS	Delay	LOS	Delay
S Myrtle St / Beacon Ave S – NB	C	24.0	C	31.4	C	22.0	C	23.8
S Myrtle St / Beacon Ave S – SB	C	32.5	D	44.4	C	25.6	C	30.3
Two-Way-Stop Controlled	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
S Othello St / Beacon Ave S – NB	*A*	*3.3*	*A*	*3.3*	*A*	*2.8*	*A*	*2.7*
Eastbound / All Movements	B	11.9	B	12.1	B	10.9	B	10.9
Westbound / All Movements	B	10.4	B	10.5	B	10.3	B	10.4
S Othello St / Beacon Ave S – SB	*A*	*1.3*	*A*	*1.3*	*A*	*1.2*	*A*	*1.2*
Eastbound / All Movements	B	13.2	B	13.4	B	12.6	B	12.8
Westbound / All Movements	B	14.0	B	14.3	B	13.2	B	13.5

Source: Heffron Transportation, Inc., October 2022.

1. Level of service.

2. Average seconds of delay per vehicle.

12 Transportation Research Board 2016.

13 M. Dunlap, SDOT, August 27, 2020.

14 SDOT, *Beacon Hill Protected Bike Lane Traffic Analysis Check-In*, Channelization / Phasing Alternative 2, Sept. 24, 2020.

15 SDOT, *Policy for Traffic Signal Cycle Time, and Pedestrian Signal Timing and Actuation*, January 27, 2021. The new policy sets maximum signal cycle lengths by corridor type and Comprehensive Plan designation, reduces walk speed calculations, and establishes criteria for pedestrian recall phases. The modeling was also adjusted to add Leading Pedestrian Intervals (LPIs) as directed by SDOT staff.

As shown, the S Myrtle Street / Beacon Avenue S intersections currently operate at LOS C during both analysis hours. The S Othello Street / Beacon Avenue S intersections operate at LOS A overall with all movements at LOS B or better. Changes assumed at the S Myrtle Street / Beacon Avenue S intersection as part of the Beacon Avenue PBL project, combined with assumed traffic increases, are projected to increase average delays by between about 2 and 17 seconds and degrade operations to LOS D at the southbound intersection in the PM peak hour.

2.4. Parking Supply and Occupancy

On-street parking at and around the Van Asselt School site was surveyed in October 2022 to determine the existing parking supply and occupancy. The results of those surveys were used to estimate how parking occupancy could be affected by new parking demand generated by the proposed field lighting project (which is presented later in Section 3.7). The following sections describe the on-street parking supply as well as the observed parking occupancy and utilization rates.

2.4.1. Methodology and Study Area

A detailed on-street parking study was performed according to the methodology outlined in the City's Tip #135,[16] which outlines the City's preferred methodology to determine the number and type of on-street parking spaces that may exist within a defined study area, and how much of that supply is currently utilized at different times of the day.

The study area for the on-street parking analysis consists of all roadways within an 800-foot *walking* distance from the school site, as typically required by the City of Seattle. The 800-foot walking distance results in a study area that extends to just west of Swift Avenue S, S Willow Street to the north, just north of S Webster Street, and just east of 32nd Avenue S. Details about parking supply and occupancy are provided in the following sections. The study area consists primarily of single-family residential land uses, with some institutional uses, such as churches and a community center. Many of the residential properties have garages and driveways; some area residents also use on-street parking.

The study area was separated into individual block faces. A block face consists of one side of a street between two cross-streets. For example, the north side of S Myrtle Street, between Military Road S and Beacon Avenue S is one block face (identified as block face 'AY' for this study). Figure 5 shows the study area and block face designations.

2.4.2. Existing On-Street Parking Supply

Each block face was measured and analyzed to determine the number of legal on-street parking spaces. First, common street features—such as driveways, fire hydrants, and special parking zones— and their buffer requirements were identified. No on-street parking capacity was assumed within 30 feet of a signalized or marked intersection, within 20 feet of an uncontrolled intersection, within 15 feet on either side of a fire hydrant, or within 5 feet on either side of a driveway or alley. The remaining unobstructed lengths between street features were converted to legal on-street parking spaces using values in the City's Tip #135. Based on extensive past experience of Heffron Transportation preparing on-street parking utilization studies, a trend has been observed that the increased popularity of smaller cars and the tendency for drivers to park closer together in areas with higher utilization can result in more available supply than would be suggested by the Tip #135 guidance. Detailed parking supply by block face is provided in Appendix B.

[16] SDCI, October 5, 2022.

Van Asselt School
Athletic Field Lighting

Figure 5
Study Area for On-Street Parking
Occupancy Surveys

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The parking supply survey determined that there are 258 on-street parking spaces within the study area and 215 have no signed restrictions. After accounting for school-bus and time-dependent "No Parking" zones along the school frontage (totaling 17 spaces), the total available supply is 241 spaces during the two survey periods discussed in the next section.

2.4.3. Existing On-Street Parking Occupancy

Parking occupancy counts on school-day evenings were performed during times when the future use of the lighted athletic field could generate added parking demand. The counts were conducted in the early evening (between 5:45 and 6:30 P.M.) and later evening (between 8:15 and 9:00 P.M.) to reflect conditions that could be affected by new scholastic and recreational athletics under the lights. Counts were performed on two evenings with no events at the school—Tuesday, October 4 and Tuesday, October 11. Another count was performed on Thursday, October 13, to capture parking conditions during the Curriculum Night event held at the site for its interim occupant, Kimball Elementary.

The counts for each evening were compiled and averaged with results summarized in Table 2. In addition, occupancy and supply data from a prior study are shown to provide a comparison to non-school day mid-evening conditions (7:30 to 8:15 P.M.) in late June 2020. On-street parking utilization was calculated using the methodology described in Tip #135, which is the number of vehicles parked on-street divided by the number of legal on-street parking spaces. Table 2 presents the parking utilization rates for the full study area for each time period surveyed; detailed summaries of the on-street parking occupancy by block face for all counts are provided in Appendix B.

Table 2. On-Street Parking Utilization Survey Results

Time Period Surveyed	Parking Supply	Total Vehicles Parked	Utilization Rate (% Spaces Occupied)
School Day Early-Evening (5:45 to 6:30 P.M.)			
Tuesday, October 4, 2022	241	85	35%
Tuesday, October 11, 2022	241	95	39%
Average	241	90	37%
Evening Event			
Thursday, Oct. 13, 2022 – Kimball Elementary Curriculum Night	241	136	56%
School Day Later-Evening (8:15 to 9:00 P.M.)			
Tuesday, October 4, 2022	241	95	39%
Tuesday, October 11, 2022	241	91	38%
Average	241	93	39%
Evening Event			
Thursday, Oct. 13, 2022 – Kimball Elementary Curriculum Night	*241*	*89*	*37%*
Non-School Day Mid-Evening (7:30 to 8:15 P.M.) [a]			
Wednesday, June 24, 2020	239	69	29%
Thursday, June 25, 2020	239	66	28%
Average	239	68	28%

Source: Heffron Transportation, Inc., October 2022

a. *Counts performed for* Van Asselt School Addition Project Transportation Technical Report *(Heffron Transportation, Inc., July 2, 2021). Note that parking supply reflects conditions documented at that time, which have been changed in 2022 based on signage revisions.*

As shown, the October 2022 surveys determined that parking occupancy ranged from 35% to 39% with 146 to 156 unused spaces during non-event evening conditions. During the Curriculum Night event for Kimball Elementary School, parking occupancy increased to 56% (with 105 unused spaces) during the early evening period and declined back to non-event levels (37%) by the later-evening time period. For the purpose of evaluating the potential on-street parking impacts associated with new development, the City considers utilization rates of 85% or higher to be effectively full and may evaluate parking management strategies when utilization rates exceed 85%. The study area parking utilization are well below that threshold.

The October 2022 occupancy levels reflected an average of about 24 more vehicles parked on-street within the study area compared to conditions observed during the non-school-day evening counts in late June 2020. The average occupancy increased from about 28% in June 2020 to about 38% in October 2022. This difference could be a result of a combination of factors including occupancy of the Van Asselt School site by Kimball Elementary (with some employee and school activities in the building), completion and occupancy of new development projects within the study area (with added on-street demand from residents), and continued recovery from the COVID-19 pandemic that has allowed recreational activities and use of public facilities such as the school and nearby Van Asselt Community Center to resume.

As noted previously in Section 2.2.3, one new residential development project was under construction at the time of this analysis at 7100 Beacon Avenue S, across Beacon Avenue S to the east of the school site. That development will have 15 residential units with parking for 12 vehicles. The analysis prepared for the project indicates it could have parking overspill or 2 or 3 vehicles during the overnight hours.

2.4.4. Off-Street Parking

At the time of the data collection and observations in October 2022, the site had two on-site parking lots with a total of 67 spaces, both accessed from S Myrtle Street. The eastern staff parking lot at the northeast corner of the site had 8 spaces; the larger staff/visitor parking lot located at the northwest corner of the site has 59 spaces. Vehicle counts were conducted at these on-site lots at the same times as described in previous sections for on-street parking. During the non-event evening count periods there were between two and five vehicles parked on-site (leaving 62 to 65 unused spaces). During the event-night observations (Curriculum Night), there were 29 vehicles parked on-site (38 unused) during the early-evening period with none on-site (67 unused) during the later-evening period.

When construction of the Van Asselt School Addition project is complete, the site will have 68 parking spaces—59 in the northwest lot, 3 spaces in the northeast lot, and 6 spaces in the new southeast lot.

2.5. Traffic Safety

Collision data for the study area intersections and roadway segments were obtained from SDOT's Open Data Portal for the 5.3-year period between January 1, 2017 and April 30, 2022, which were the most recent records available. The data were examined to determine if there are any unusual traffic safety conditions that could impact or be impacted by the proposed project. Table 3 summarizes the collision data.

Unsignalized intersections with five or more collisions per year and signalized intersections with 10 or more collisions per year are considered high collision locations by the City. As shown, all of the study area intersections averaged fewer than two collision per year, and none meet the criteria for a high collision location for the period of time evaluated. None of the reported collisions resulted in fatalities. Overall, these data do not indicate any unusual traffic safety conditions.

Table 3. Collision Summary

Intersection	Rear-End	Side-Swipe	Left Turn	Right Angle	Ped / Cycle	Other	Total for 5.3 Years	Average/ Year
S Myrtle Street / Beacon Avenue SB	0	0	1	1	0	0	2	0.4
S Myrtle Street / Beacon Avenue NB	4	1	0	0	0	0	5	0.9
S Othello Street / Beacon Avenue SB	0	1	0	0	1	0	2	0.4
S Othello Street / Beacon Avenue NB	1	0	0	0	1	0	2	0.4
Roadway Segment	**Rear-End**	**Side-Swipe**	**Left Turn**	**Right Angle**	**Ped / Cycle**	**Other [a]**	**Total for 4 Years**	**Average/ Year**
S Beacon Avenue SB (between S Myrtle Street and S Othello Street) [b]	1	0	0	1	0	4	6	1.1
S Beacon Avenue NB (between S Myrtle Street and S Othello Street)	3	0	0	1	0	0	4	0.8
S Myrtle Street (between Swift Avenue and S Beacon Avenue SB) [c]	4	1	0	1	0	0	6	1.1
S Myrtle Street (between S Beacon Ave SB and S Beacon Ave NB)	1	0	0	0	1	0	2	0.4

Source: City of Seattle Department of Transportation, January 1, 2017 through April 30, 2022, https://data-seattlecitygis.opendata.arcgis.com/datasets/collisions, Accessed October 5, 2022.

a. *'Other' collisions included three vehicles striking an object of the roadway and oneo with insufficient information to determine type.*

b. *The shared driveway with Beacon Ave Church of God is within this segment. No collisions were specifically attributed to the driveway.*

c. *The School's parking lot driveway is within this segment. No collisions were specifically attributed to the driveway.*

2.6. Transit Facilities & Service

King County Metro Transit (Metro) provides bus service along Beacon Avenue S and S Myrtle Street. On Beacon Avenue S, the southbound Metro bus stop is located at the north end of the curb adjacent to the school separate from the school bus loading areas; the northbound stop is located north of S Myrtle Street. On S Myrtle Street, the eastbound stop is located east of Beacon Avenue S, and the westbound stop is located east of Beacon Avenue S opposite the school site. These stops are served by Metro Routes 36 and 107. Route 36 provides all-day service seven days per week between Downtown Seattle, Beacon Hill and Rainier Beach, with weekday headways (time between consecutive buses) of 8 to 10 minutes. Route 107 provides all-day service seven days per week between Beacon Hill, Georgetown, Rainier Beach, and Renton, with weekday headways of 15 to 30 minutes. These service levels are comparable to those envisioned in Metro's 2021 *Long Range Plan*[17] for 2025 and 2040.

SPS provides yellow bus, door-to-door, Metro, and cab service. Eligibility for District-provided transportation depends on several factors including grade level and proximity to assigned schools. Most of the west curb of Beacon Avenue S adjacent to the school is reserved for "School Bus Only, 7 AM to 4 PM." School bus transportation would continue to be available to students who qualify while attending school at the Van Asselt School site on an interim basis.

[17] King Country Metro; *King County Metro Long Range Plan*; 2021.

2.7. Non-Motorized Facilities

2.7.1. Existing Conditions

Sidewalks exist on both sides of the arterial streets in the vicinity of the project site; they are intermittent on local access streets. There is also a shared-use pathway within the landscaped median of Beacon Avenue S. The signalized S Myrtle Street / Beacon Avenue S intersections have crosswalks and pedestrian signals across all legs. There are also crosswalks with signage across Beacon Avenue S near the south end of the school site. There is a protected bike lane in each direction along S Myrtle Street, which transitions to painted sharrows in the outside lanes approaching Beacon Avenue S.

2.7.2. Planned Improvements

The modernization project currently being constructed at the school site includes several improvements to the median on Beacon Avenue S and pedestrian facilities across the median and Beacon Avenue S. The improvements will include speed humps and marked crosswalks at the north and south end of the median adjacent to the school site that will facilitate pedestrian crossings from one side of Beacon Avenue S to the other.

3. PROJECT IMPACTS

This section describes the conditions that would exist with the Van Asselt School field lighting project. The forecast 2024 without-project traffic volumes were increased to account for new trips that could be generated by activities associated with the proposed field lighting. Level-of-service analyses were performed to determine the proposed project's impact on traffic operations in the study area. Potential impacts to parking, safety, and transit are also addressed.

3.1. Transportation Network

No changes to the roadway network are proposed as part of the field lighting project.

3.2. Traffic Volumes

This section describes the estimated increases in traffic that could occur as a result of increased use of the athletic field made possible by the field lighting project. As noted previously, the joint-use agreement between SPS and Parks allows for the shared use of school and park facilities throughout Seattle. Under this agreement, District-identified fields are prioritized for District athletic programs on weekdays until 7:00 P.M. throughout the school year and on Saturdays from 8:00 A.M. to 12:00 P.M.; middle school activities have Saturdays reserved from 8:00 A.M. to 4:00 P.M. Non-scholastic activities scheduled through Parks may occur outside of those periods and/or as fields are available.

3.2.1. Scholastic Athletics Activities

Typical Event Types, Frequency, Times, and Participation

The Van Asselt School athletic fields are used by students for daytime physical education classes, Monday through Friday from about 8:00 A.M. until about 2:30 P.M. The facility is also scheduled by Parks for community use for practices and games. The typical sports played there are football, soccer, ultimate, and youth track (not regulation size and narrow without designated lanes). In the future, the site is planned to be occupied as an interim middle school and students typically have athletic practices from 3:45 P.M. until about 5:30 P.M. in the fall and spring. The three middle schools planned to occupy the Van Asselt School site on an interim basis are Mercer, Washington, and Aki Kurose. Middle school athletic programs that are likely to use the existing athletic facilities for after-school practices include boys' and girls' soccer, co-ed ultimate (frisbee), and possibly co-ed track. Currently, middle school games and competitions for those schools have been held on Saturday mornings at one of three high school sites (Garfield, Cleveland, and Franklin) since the middle schools have inadequate or no on-site fields. However, future games could be hosted at the Van Asselt site as they are at other SPS middle schools (e.g., Whitman and Robert Eagle Staff) on Saturday mornings. There are typically no outdoor middle school scholastic sports during winter months. The proposed field lights could allow middle school activities to extend to between 5:30 and 7:00 P.M. in late fall and early spring, which natural lighting does not currently allow.

The field could also be used on an interim basis by Rainier Beach High School, during years when that school site is under construction (2022-2025). During that period, it could be used for practices and games by girls' soccer and boys' ultimate in the fall and boys' soccer and girls' ultimate in the spring. It may also be used occasionally for football practices; it would not be used for high school football games since the field does not have goal posts and none are proposed to be added. High school practices could be held between 3:45 and to 7:00 P.M.; soccer and ultimate games are typically scheduled to begin at 4:00 or 4:30 P.M. There are no Washington Interscholastic Activities Association (WIAA) sanctioned outdoor sports during winter months—some high schools have club activities such as ultimate during winter. The field lights are expected to extend the use of the field for possible interim high school activities described above. Although the site is not expected to be used in the longer term for competitive high school games

(after construction of the Rainier Beach High School replacement is complete), traffic and parking generation for those activities were assumed to evaluate the potential worst-case impacts of the project.

Participation levels and attendance for these scholastic athletic activities fluctuate based on the sport, level of competition, team success, and day of week. In spring 2015, Heffron Transportation performed observations of participants and spectators for several high-school-level games/matches for another field lighting project. Table 4 summarizes the observed scholastic sports competitions, locations, opponents, date, time, numbers of participants (total from both schools), and ranges in numbers of spectators. As shown, most activities have between 30 and 60 participants (athletes, coaches, trainers, and support staff) with between about 35 and 135 spectators.

Table 4. Scholastic Athletic Events Observed – Spring 2015

Activity / Location / Teams	Date/Time of Observation	Participants [1]	Spectators [2]	Total
Varsity Baseball / Kennedy-Tyee	April 6, 2015; 4:00-6:00 P.M.	38	55 to 69	93 to 107
Varsity Soccer / Starfire-Hazen	April 6, 2015; 6:00 -7:00 P.M.	53	104 to 133	157 to 186
Varsity Soccer / Kennedy-Highline	April 16, 2015; 4:30 -6:00 P.M.	49	75 to 125	124 to 174
Lacrosse / Kennedy-Seattle Academy	April 25, 2015; 1:00-3:00 P.M.	57	78 to 80	135 to 137
Baseball C-Team / Kennedy-Nathan Hale	April 25, 2015; 1:00-3:00 P.M.	43	33 to 38	76 to 81
Varsity Soccer / Starfire / Kennedy-Tyee	April 28, 2015; 6:00-7:00 P.M.	49	74 to 75	123 to 124
Average of Observations		48	70 to 87	118 to 135

Source: Heffron Transportation, Inc., April 2015.

1. *Participants include players, substitutes, coaches, support staff (e.g. trainers), referees, ticket staff, press-box personnel, and concession staff.*
2. *Range of spectators observed during several counts during game.*

Traffic Generation

The field has been and would continue to be used for scholastic athletics including soccer, ultimate, and football practice activities. However, the proposed lights would extend the hours in which the field could be used during several months of the year. This would allow some activities that are currently scheduled elsewhere, due to field conflicts and darkness, to occur at the Van Asselt School site. As described above, SPS staff have indicated that even without lights, scholastic use of the field could include middle school soccer and ultimate practices that occur after school in spring and fall seasons (with no outdoor scholastic sports during the winter season). Rainier Beach High School could use the field on an interim basis (during construction of its school replacement) for the same types of activities. If the field is lighted, however, it could extend the practice duration or allow scholastic games to occur in the late fall and early spring when lack of daylight would preclude use between sunset and 7:00 P.M. During these shoulder seasons, the extended field use times could result in new trips being generated during the commuter PM peak hour as a practice or game could begin or end during that time and participants and spectators would arrive at or leave the site.

The potential impact of added scholastic athletics (e.g., soccer or ultimate games or practices) that would generate traffic during the commuter PM peak hour was evaluated. Traffic generation observations performed at Kennedy Catholic High School during and after the games confirmed the typical range of traffic generated by these types of events. Observations of traffic flows at Kennedy High School after games indicated that the athletic events generated trips at rates ranging from about 0.30 to 0.58 trips per person (participant plus spectator). For a typical soccer or ultimate event, this relates to between 25 and 55 trips leaving the site during the hour after a game. Due to the start and finish times of some games or

practices, some or all of this traffic could occur during the commuter PM peak hour. It is noted that this potential increase in activity and traffic due to the field lights would be limited to about two to four months per year, since natural lighting conditions during the remainder of the fall and spring do not require use of field lights until after most scholastic activities end.

It is noted that the trip generation estimates reflect rates derived from locations where little or no transit access is provided and field users and spectators did not generally commute by transit. However, the Van Asselt School site is directly served by Metro Transit bus routes. Field observations have found that high school (e.g., Rainier Beach High School) and middle school students, family members, and some school staff often use transit options for trips to and from school, where convenient and available. Therefore, the estimates assuming that all trips occur by vehicle are likely conservatively high for this site location.

3.2.2. Recreational (Non-Scholastic) Athletics Activities

Typical Event Types, Frequency, Times, and Participation

During times when the field is not reserved for use by schools occupying the Van Asselt School or by other SPS activities, it would continue to be available to community users and would be scheduled through Parks. Non-scholastic youth and adult athletic activities that currently occur include soccer, football, ultimate, and lacrosse. The field is expected to continue to be used for these activities without or with the lighting project. Athletic practices and games can be scheduled until at least 8:30 P.M. in late spring and summer. When not reserved for scholastic athletics, weekend games also take place beginning at 9:00 A.M. and last until about 4:00 P.M. in early spring, extending to 9:00 P.M. by May.

The field lighting project is expected to result in increased usage for non-scholastic recreational activities. Youth and adult athletics could be added during late fall, winter, and spring months and scheduled from 7:00 P.M. until 9:45 P.M. Some of these activities would be new to the site. If available earlier than 7:00 P.M., the field could be scheduled consecutively on any given night. As a result, it is estimated that up to two youth and/or adult athletic activities could be added on an average weekday or weekend evening (during times when natural lighting conditions do not currently allow them).

Historical spectator and participant counts performed for youth and adult athletic activities were used to estimate potential traffic generation for these activities. Counts were performed at four youth baseball games and three youth soccer matches in 2000. These counts were supplemented with new counts performed at Ingraham High School in January 2017. The number of adults (driving age), including coaches and officials was between 30 and 60. Based on numerous observations, adult recreational soccer matches (men's and co-rec games) typically draw between 23 and 30 people (including participants, spectators, and referee). The participants and spectators at evening athletic activities were observed in January 2017 at Ingraham High School's fields. These activities consisted of a high-school sports practice and two non-scholastic recreational activities (one practice and one game). The observations, presented in Table 5, are representative of typical participant and spectator levels for the majority of new activities that would be made possible by the proposed field lighting project.

Table 5. Athletic Events Observed – Winter 2017

Activity / Location / Teams	Date/Time of Observation	Participants [1]	Spectators [2]	Total
Ultimate (Frisbee) / Ingraham HS / Practice	Jan 23, 2017; 6:45-7:30 P.M.	30	0	36
Soccer / Ingraham HS / SYSA Practice [3]	Jan 23, 2017; 6:45-7:30 P.M.	80 to 88	20	100 to 108
Soccer / Ingraham HS / GSSL Game [4]	Jan 23, 2017; 6:45–7:30 P.M.	22 to 27	0	22 to 27
Average of Observations		44 to 48	20	51 to 57

Source: Heffron Transportation, Inc., January 2017.

1. *Participants include players, coaches, support staff (e.g. trainers), referees, ticket staff, press-box personnel, and concession staff.*
2. *Range of spectators observed during several counts during game.*
3. *SYSA = Seattle Youth Soccer Association*
4. *GSSL = Greater Seattle Soccer League*

Traffic Generation

On an average day when the field is available, the proposed field lighting project could allow for two non-scholastic recreation athletic activities between about 5:30 and 9:45 P.M. Based on data collected for adult and youth athletics, an average game or practice is estimated to generate approximately 60 vehicle trips (30 inbound and 30 outbound). This estimate assumes most adults drive to these activities in separate vehicles, which is typical for adult recreational soccer and is likely conservatively high for most youth sports activities since some youth carpool with other players. The added trips would likely occur during the times between consecutively scheduled games. For example, if a recreational youth soccer practice or game was scheduled consecutively with an adult recreational game, the first activity could begin at 5:30 P.M. and the next at 7:00 P.M. The highest traffic generation would be expected during the 6:00 to 7:00 P.M. hour when participants and spectators from the first activity would leave the site and the spectators and participants from the next would arrive.

3.2.3. Combined Project Trip Generation for Analysis

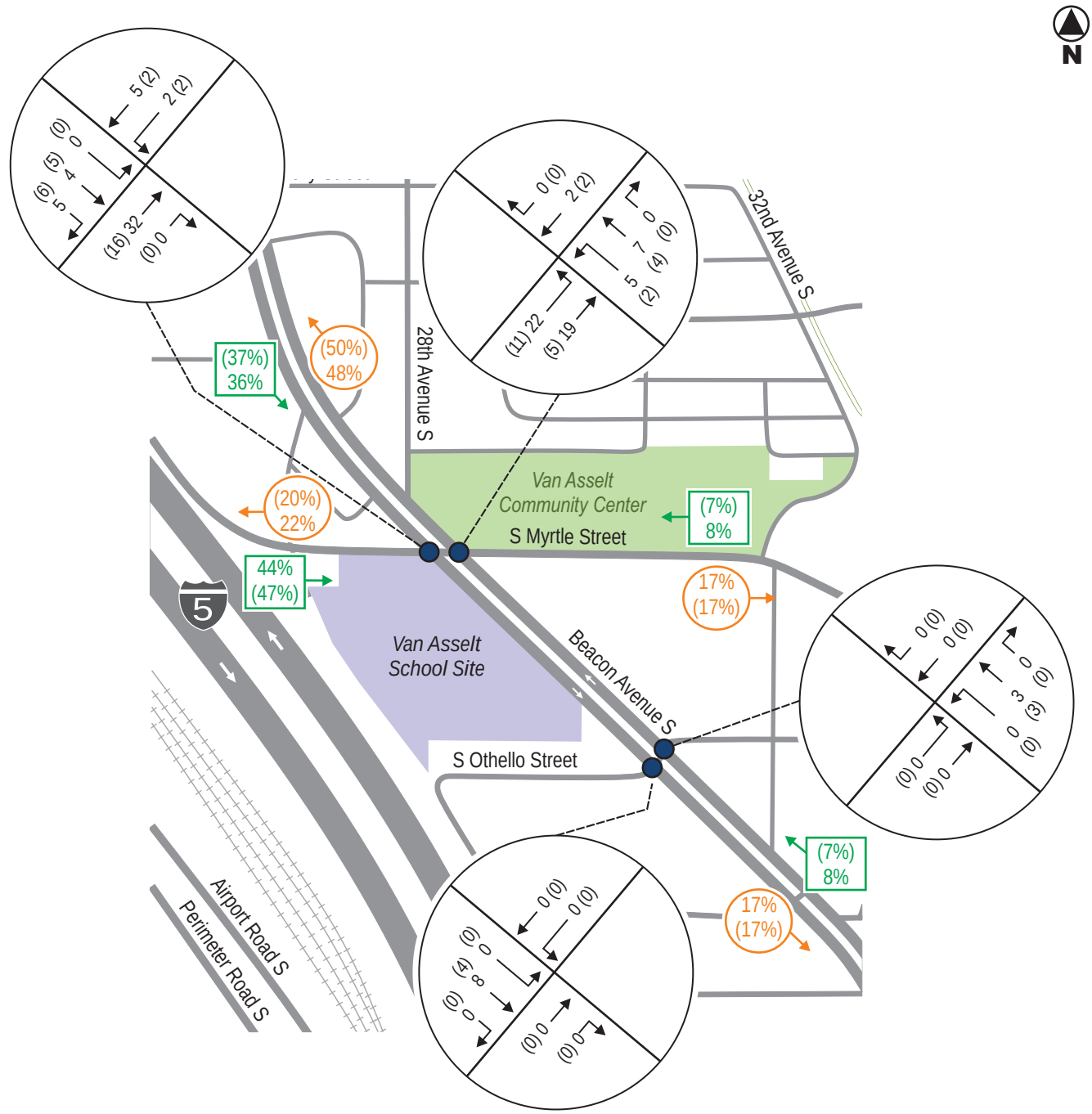
Based on the analysis presented in the previous sections, the estimated worst case for traffic generation during the two analysis periods—the commuter PM peak hour and the early evening hour—were estimated. The worst-case increase in traffic during the commuter PM peak hour is expected to occur as a high school athletic practice or game ends (up to 55 outbound trips) and the spectators and participants of a recreational game arrive (estimated at 25 in and 5 out). In total, this would result in an estimated 85 trips during the commuter PM peak hour.

During the early evening hour between 6:00 and 7:00 P.M., consecutive recreational activities on the field are estimated to generate a total of 60 trips (30 in, 30 out). The estimated net increases in field-lighting-related traffic are presented in Table 6. Trips were assigned to the local roadways based on existing traffic patterns derived from traffic counts and on the current and expected future location of parking likely to be used by participants and spectators. Figure 6 shows the resulting trip distribution patterns and assignments for the commuter PM peak hour and the early evening hour.

Table 6. Net New Trip Generation from Van Asselt Field Lighting Project

	PM Peak Hour			Early Evening Hour (6:00 to 7:00 P.M.)		
Field	In	Out	Total	In	Out	Total
Soccer / Football Field	25	60	85	30	30	60

Source: Heffron Transportation, Inc., December 2019.



Van Asselt School
Athletic Field Lighting

Figure 6
Project Trip Distribution and Assignments
PM Peak and Early Evening Hours

heffron transportation inc

It is noted that these estimated trip increases would only be new to the site and local roadways for part of the year—primarily from about October until early March. During the remainder of the year, natural lighting conditions allow for field use during these times without the need for field lights. The field could already be used for Rainier Beach High School or other scholastic sports practices until 7:00 P.M. and for recreation athletics until 8:30 P.M. or later during parts of the year when natural lighting allows. As a result, this analysis evaluates potential impacts that are already occurring (or that could occur without the project) from late spring through early fall when natural lighting allows, but would simply occur on more days of the year.

3.2.4. Forecast With-Project Traffic Volumes

The project trips described in the previous section were added to the forecast without-project traffic volumes to estimate volumes with the project for each analysis hour. Figure 7 shows the resulting with-project traffic forecasts for the commuter PM peak hour (5:00 to 6:00 P.M.) and the early evening hour (between 6:00 and 7:00 P.M.).

3.3. Traffic Operations Impacts

Intersection levels of service for future with-project conditions were determined using the same methodology described previously for existing and future without-project conditions. Table 7 shows the results of the analysis of the off-site study area intersections; levels of service for the without-project conditions are shown for comparison.

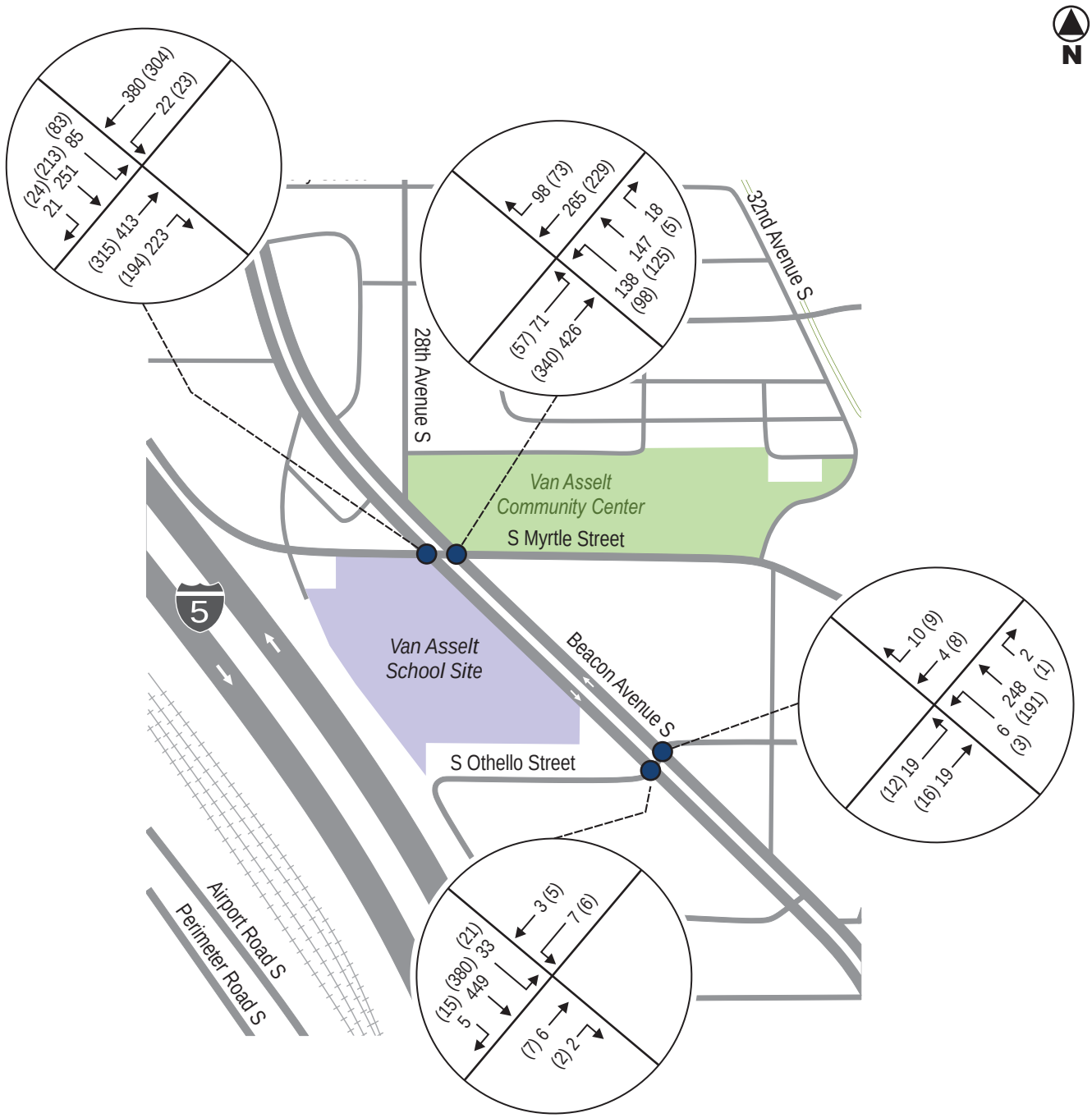
Table 7. Level of Service Summary – Forecast 2024 Conditions Without- and With-Project

Intersections	PM Peak Hour (5:00-6:00 P.M.)				Evening Peak Hour (6:00–7:00 P.M.)			
	Without Project		With Project		Without Project		With Project	
Signalized	LOS [1]	Delay [2]	LOS	Delay	LOS	Delay	LOS	Delay
S Myrtle St / Beacon Ave S – NB	C	31.4	C	32.5	C	23.8	C	24.0
S Myrtle St / Beacon Ave S – SB	D	44.4	D	52.4	C	30.3	C	31.9
Two-Way-Stop Controlled	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
S Othello St / Beacon Ave S – NB	*A*	*3.3*	*A*	*3.2*	*A*	*2.7*	*A*	*2.7*
Eastbound / All Movements	B	12.1	B	12.1	B	10.9	B	11.0
Westbound / All Movements	B	10.5	B	10.5	B	10.4	B	10.4
S Othello St / Beacon Ave S – SB	*A*	*1.3*	*A*	*1.3*	*A*	*1.2*	*A*	*1.2*
Eastbound / All Movements	B	13.4	B	13.5	B	12.8	B	12.9
Westbound / All Movements	B	14.3	B	14.5	B	13.5	B	13.5

Source: Heffron Transportation, Inc., October 2022.

1. *Level of service.*
2. *Average seconds of delay per vehicle.*

As shown, the proposed project is expected to add some delay (from less than 1 second to 8 seconds of average delay per vehicle), but is not expected to change the overall level of service at any of the analysis intersections. The one- and two-way-stop controlled intersections would continue to operate at LOS A overall and all movements would continue to operate at LOS B or better during both periods. The site access intersections on S Myrtle Street and Beacon Avenue S as well as the median parking area driveways on Beacon Avenue S are expected to continue operating at LOS A overall with all movements at LOS C or better with the project during both the PM peak hour and the early evening hour.



KEY

- Study Intersection
- ← XX PM Peak Hour Volume
- (XX) Early Evening Hour Volume

Van Asselt School
Athletic Field Lighting

Figure 7
Forecast-2024-With-Project Traffic Volumes
PM Peak and Early Evening Hours

heffron transportation inc

3.4. Traffic Safety

The project would increase traffic at the study area intersections and statistically, the number of collisions could increase as traffic increases. However, the project does not include any changes to the roadway network that are expected to result in new adverse safety concerns.

3.5. Transit

It is likely that some of the new trips generated as a result of the field lighting project would occur by transit, the number is likely to include students and family members that already commute to and from the site by transit. Most of the new transit trips generated as a result of the field lighting project are expected to occur outside of peak commute hours and are not expected to adversely impact transit service or facilities in the vicinity.

3.6. Non-Motorized Facilities

Based on observations of scholastic athletic activities, participants may drive, be driven, or be bused to the site (for visiting schools) for games/matches. Spectators, such as parents or friends, typically arrive via automobile. Similarly, most of the new participants and spectators using the site for non-scholastic recreational activities are expected to arrive via automobile. However, some could arrive on foot or bicycle from the local neighborhood or nearby transit stops. As a result, the proposed field lighting project may result in small increases in pedestrian or bicycle activity to the site beyond what occurs today. The school site vicinity has pedestrian walkways and crosswalks used by students; therefore, no adverse impacts are expected for the small number of pedestrians that could walk to the field.

3.7. Parking Demand and Occupancy

The proposed field lighting project does not include any physical changes to the existing parking supply (on-street or on-site).

The additional scholastic and non-scholastic athletics activities made possible by the field lighting project are expected to generate some additional parking demand that may occur on-site or on nearby streets. For most scholastic games/matches, the visiting team's school buses may be parked in the bus loading area along the west side of Beacon Avenue S. Participants and spectators who drive to the site for scholastic and non-scholastic athletics may use on-site parking or on-street parking in the site vicinity.

Average attendance/participation is expected to range from 118 to 135 persons per scholastic athletic event and 50 to 60 for non-scholastic athletic activities. The combined peak number of added attendees and participants on site that would occur for a short time between consecutive activities is estimated to range from 168 to 195 persons. Observations for the Kennedy High School field improvements project in spring 2015 indicated that the athletic events generate parking demand at rates ranging from about 0.6 to 0.7 vehicle per participant/spectator. However, those rates do not reflect the higher levels of transit use that occur at and around the Van Asselt School site, due to its proximity to Metro transit stops and service. Mode-of-travel data for the site were derived from 'Journey-to-Work' survey results from the year 2010 Census compiled by the PSRC. From these surveys, results for employees coming to the area and working in Transportation Analysis Zones (TAZs) 198 and 199 (the zones that include and surround the project site) indicate that 20% take transit (19%) or bike to work (1%) and about 15% of residents living in these zones commuted by transit, walking, biking, or other mode. For middle and high school students, the percentages are expected to be higher, since 40% to 50% of high school students and all middle school students are not old enough to drive. To reflect transit use for the possible high-school scholastic athletic events that could occur at the site, the observed demand rates from the other school sites were reduced by 35% for application at the site. No adjustments were made for the demand rates

applied to non-scholastic adult or youth activities at this site. At the adjusted rates, the peak demand is estimated to range from about 76 to 103 vehicles during the short period between activities—between 5:15 and 5:45 P.M. Outside of these periods, total demand is expected to range from 30 to about 60 vehicles. These parking demand estimates reflect parked vehicles of spectators as well as participants (e.g., coaches, players that driver, referees/umpires, trainers, support staff, etc.).

As described previously, the data collected from the on-site parking lots at Van Asselt School on non-event evenings found 62 to 65 unused spaces on site; on-street parking occupancy ranged from 35% to 39% with 146 to 156 unused spaces during non-event evening conditions. The addition of 76 to 103 vehicles during the short overlapping peak periods could be accommodated by the unused supply and on-street-parking occupancy rates are expected to remain well below 85%—the level below which is considered to be acceptable by the City of Seattle.

Data collected on the event evening (Kimball Elementary Curriculum Night) found 33 unused spaces on site during the early evening period and 68 unused spaces during the later-evening period. On-street parking occupancy ranged from 56% (105 unused spaces) during the early evening to 37% (152 unused spaces) during the later evening condition. These results indicate that the unused supply and on-street-parking could accommodate added demand generated by the athletic field even with a concurrent evening in the school building. However, at the higher end of demand, on-street parking occupancy could be at or just above 85% for the short overlapping period between consecutive events in the early evening. For evenings when a large event is planned at the Van Asselt School site (events that have potential attendance of 700 or more), the school and District are already required to implement an Event Management Plan to reduce parking impacts. Measures may consist of: 1) separating large events by grade to reduce overall attendance on any given evening; 2) holding large events at an off-site location; and/or 3) securing additional off-site parking (e.g., Van Asselt Community Center or Beacon United Methodist Church). Based on the historical event schedules and attendance provided by school principals, there are typically between 7 and 10 events each year that could attract attendance of 700 or more, including Curriculum Night, Math Night, Literacy Night, and family affinity group nights. However, the principals indicated that these larger events could be split over two or more nights, if needed to reduce peak event parking demand. It is acknowledged that there could be occasional evenings with very large events that result in higher levels of on-street and on-site demand and utilization; however, these are likely to occur only a few times per year and would not be considered a significant adverse impact to parking. Those conditions could be avoided through scheduling adjustments that prevent consecutive activities on the field during the early evening hours of an event night.

4. SUMMARY AND RECOMMENDATIONS

SPS proposes to install field lights at the Van Asselt School athletic field to be available for use in fall 2024. The project would allow increased use of the athletic field for scholastic and non-scholastic recreational activities. Usage levels of the facility are expected to increase with the added ability to hold practices and some competitive games later in the day during the school year. The increase in field use due to the lighting project would result from a combination of scholastic and non-scholastic recreational athletics scheduled through Parks, such as youth and adult soccer, football, lacrosse, and ultimate. The field lights could increase weeknight and weekend use during winter months from sunset until 9:45 P.M. (lights would be scheduled to turn off at 10 P.M.). Van Asselt School use of the field can already occur until between 5:30 P.M. and 7:00 P.M. when natural light allows. That could be extended to other parts of the year (late fall and early spring). Rainier Beach High School could also use the field on an interim basis while that site is under construction (from 2022 to 2025) for practices and/or games (excluding football games) that require use of lights (especially at the start of the spring sports season in late February and early March).

The increase in traffic during the commuter PM peak hour is expected to be up to 85 trips (25 in, 60 out), not including any adjustment for transit use. During the early evening hour between 6:00 and 7:00 P.M., consecutive recreational activities on the field could generate a total of 60 trips (30 trips in, 30 trips out). These estimated increases in trips would only be new to the site and local roadways for part of the year—primarily from about October until early March. During the remainder of the year, natural lighting conditions allow for field use during these times without the need for field lights. As a result, these trips are already occurring (or could occur) without the project from late spring through early fall when natural lighting allows but would simply occur on more days of the year.

The proposed project could add some delay to the off-site study-area intersections but is not expected to change the overall level of service at any of the analysis intersections.

The project is expected to generate some additional parking demand that is not currently occurring at the site. The peak demand is estimated to range from about 76 to 103 vehicles during the short period between consecutive activities—between 5:15 and 5:45 P.M. Outside of these periods, total demand is expected to range from 30 to about 60 vehicles. Unused on-site and on-street parking can accommodate the demand from expected new uses on the field with the field lights and on-street parking occupancy is expected to remain well below 85% utilized on non-event evenings.

The observations performed during an evening with an event at the school indicate that the unused supply and on-street-parking could accommodate added demand generated by the athletic field even with a concurrent evening in the school building. However, at the higher end of demand, on-street parking occupancy could be at or just above 85% for the short overlapping period between consecutive events in the early evening. There could be occasional evenings with very large events that result in higher levels of on-street and on-site demand and utilization; however, these are likely to occur only a few times per year and would not be considered a significant adverse impact to parking. Those conditions could be avoided through scheduling adjustments that prevent consecutive activities on the field during the early evening hours of an event night.

Based on these analyses, the project would not result in significant adverse impacts to traffic or parking within the study area. It is recommended that the District ensure that the on-site parking lots are open and available for users during all times that the field is scheduled for use. No other mitigation would be required to accommodate the project.

APPENDIX A

LEVEL OF SERVICE DEFINITIONS

Levels of service (LOS) are qualitative descriptions of traffic operating conditions. These levels of service are designated with letters ranging from LOS A, which is indicative of good operating conditions with little or no delay, to LOS F, which is indicative of stop-and-go conditions with frequent and lengthy delays. Levels of service for this analysis were developed using procedures presented in the *Highway Capacity Manual, Sixth Edition* (Transportation Research Board, 2016).

Signalized Intersections

Level of service for signalized intersections is defined in terms of average delay for all vehicles that travel through the intersection. Delay can be a cause of driver discomfort, frustration, inefficient fuel consumption, and lost travel time. Specifically, level-of-service criteria are stated in terms of the average delay per vehicle in seconds. Delay is a complex measure and is dependent on a number of variables including: number and type of vehicles by movement, intersection lane geometry, signal phasing, the amount of green time allocated to each phase, transit stops and parking maneuvers. Table A-1 shows the level of service criteria for signalized intersections from the *Highway Capacity Manual, Sixth Edition.*

Table A-1. Level of Service for Signalized Intersections

Level of Service	Average Control Delay Per Vehicle
A	≤ 10 seconds
B	> 10 – 20 seconds
C	> 20 – 35 seconds
D	> 35 – 55 seconds
E	> 55 – 80 seconds
F	> 80 seconds

Source: Transportation Research Board, Highway Capacity Manual, Exhibit 19.8, 2016.

Unsignalized Intersections

For unsignalized intersections, level of service is based on the average delay per vehicle for each turning movement. The level of service for all-way stop or roundabout-controlled intersections is based upon the average delay for all vehicles that travel through the intersection. The level of service for a one- or two-way, stop-controlled intersection, delay is related to the availability of gaps in the main street's traffic flow, and the ability of a driver to enter or pass through those gaps. Table A-2 shows the level of service criteria for unsignalized intersections from the *Highway Capacity Manual, Sixth Edition*.

Table A-2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay per Vehicle
A	0 – 10 seconds
B	> 10 – 15 seconds
C	> 15 – 25 seconds
D	> 25 – 35 seconds
E	> 35 – 50 seconds
F	> 50 seconds

Source: Transportation Research Board, Highway Capacity Manual, Exhibit 20.2, 2016.

APPENDIX B

PARKING UTILIZATION STUDY DATA

Project **Van Asselt Elementary - Interim School Field Lighting**

				Parking Supply					
Block Face ID	Street Name	Street Segment	Side of Street	Unrestricted	Disabled	15 Minute School Load Only 7-9a, 2-4p Except Sun/Hol	School Bus Only 7a-4p, No Parking At Other Times	Total Parking Spaces	**Total Parking Spaces**
AA	Military Rd S	Beacon Wr Ave S and S Avon Crest Pl	W	5	0	0	0	5	**5**
AB	Military Rd S	Beacon Wr Ave S and S Avon Crest Pl	E	0	0	0	0	0	**0**
AC	Beacon Wr Ave S	Military Rd S and 27th Ave S	SW	0	0	0	0	0	**0**
AD	Beacon Er Ave S	27th Ave S and 28th Ave S	NE	12	0	0	0	12	**12**
AE	Beacon Wr Ave S	27th Ave S and S Avon Crest Pl	SW	11	0	0	0	11	**11**
AF	28th Ave S	S Brighton E St and S Frontenac St	W	4	0	0	0	4	**4**
AG	28th Ave S	S Brighton E St and S Frontenac St	E	5	0	0	0	5	**5**
AH	28th Ave S	S Frontenac St and Beacon Er Ave S	W	3	0	0	0	3	**3**
AI	28th Ave S	S Frontenac St and Beacon Er Ave S	E	4	0	0	0	4	**4**
AJ	S Frontenac St	28th Ave S and 30th Ave S	N	4	0	0	0	4	**4**
AK	S Frontenac St	28th Ave S and 30th Ave S	S	0	0	0	0	0	**0**
AL	Swift Ave S	Covello W Dr S and Covello E Dr S	SW	0	0	0	0	0	**0**
AM	Swift Ave S	Covello W Dr S and Covello E Dr S	NE	0	0	0	0	0	**0**
AN	Covello Dr S	Swift W Ave S and Swift E Ave S	W	6	0	0	0	6	**6**
AO	Covello Dr S	Swift W Ave S and Swift E Ave S	E	8	0	0	0	8	**8**
AP	Military Rd S	S Avon Crest Pl and Swift Ave S	W	8	0	0	0	8	**8**
AQ	Military Rd S	S Avon Crest Pl and Swift Ave S	E	12	0	0	0	12	**12**
AR	S Avon Crest Pl	Military Rd S and Beacon Wr Ave S	SW	10	0	0	0	10	**10**
AS	S Avon Crest Pl	Military Rd S and Beacon Wr Ave S	NE	10	0	0	0	10	**10**
AT	Beacon Wr Ave S	S Avon Crest Pl and 28th Ave S	SW	0	0	0	0	0	**0**
AU	Beacon Er Ave S	28th Ave S and S Myrtle St	NE	8	0	0	0	8	**8**
AV	Beacon Wr Ave S	28th Ave S and S Myrtle St	SW	5	0	0	0	5	**5**
AW	Swift Ave S	Covello E Dr S and S Myrtle St	N	0	0	0	0	0	**0**
AX	Swift Ave S	Covello E Dr S and S Myrtle St	S	0	0	0	0	0	**0**
AY	S Myrtle St	Swift Ave S and Beacon Wr Ave S	N	0	0	0	0	0	**0**

Project **Van Asselt Elementary - Interim School Field Lighting**

				Parking Supply					
Block Face ID	Street Name	Street Segment	Side of Street	Unrestricted	Disabled	15 Minute School Load Only 7-9a, 2-4p Except Sun/Hol	School Bus Only 7a-4p, No Parking At Other Times	Total Parking Spaces	**Total Parking Spaces**
AZ	S Myrtle St	Swift Ave S and Beacon Wr Ave S	S	0	0	0	0	0	**0**
BA	S Myrtle St	Beacon Er Ave S and S Myrtle Pl	N	0	0	0	0	0	**0**
BB	S Myrtle St	Beacon Er Ave S and S Myrtle Pl	S	0	0	0	0	0	**0**
BC	Military Rd S	S Myrtle St and Dead End 1	SW	9	0	0	0	9	**9**
BD	Military Rd S	S Myrtle St and Dead End 1	NE	4	0	0	0	4	**4**
BE	Beacon Ave S Median Strip	S Myrtle St and S Othello St	SW	0	2	23	0	25	**25**
BF	Beacon Er Ave S	S Myrtle St and S Othello St	NE	20	0	0	0	20	**20**
BG	Beacon Wr Ave S	S Myrtle St and S Othello St	SW	13	1	0	17	31	**14**
BH	S Othello St	Military Rd S and Beacon Wr Ave S	N	9	0	0	0	9	**9**
BI	S Othello St	Military Rd S and Beacon Wr Ave S	S	12	0	0	0	12	**12**
BJ	S Othello St	Beacon Er Ave S and 32nd Ave S	N	6	0	0	0	6	**6**
BK	S Othello St	Beacon Er Ave S and 32nd Ave S	S	8	0	0	0	8	**8**
BL	Beacon Er Ave S	S Othello St and 32nd Ave S	NE	6	0	0	0	6	**6**
BM	Beacon Wr Ave S	S Othello St and S Webster N St	SW	13	0	0	0	13	**13**
			TOTAL	**215**	**3**	**23**	**17**	**258**	**241**

Project **Van Asselt Elementary - Interim School Field Lighting**

				Parking Supply	Parking Occupancy							
					Early Evening				Evening			
					5:45 P.M. to 6:30 P.M				8:15 P.M. to 9:00 P.M.			
Block Face ID	Street Name	Street Segment	Side of Street	Total Parking Spaces	Tues 10/4/22	Tues 1/11/22	Average	Thurs 10/13/22 (Event)	Tues 10/4/22	Tues 1/11/22	Average	Thurs 10/13/22 (Event)
AA	Military Rd S	Beacon Wr Ave S and S Avon Crest Pl	W	**5**	6	2	4	3	5	6	6	3
AB	Military Rd S	Beacon Wr Ave S and S Avon Crest Pl	E	**0**	2	1	2	2	2	1	2	1
AC	Beacon Wr Ave S	Military Rd S and 27th Ave S	SW	**0**	0	0	0	0	0	0	0	0
AD	Beacon Er Ave S	27th Ave S and 28th Ave S	NE	**12**	3	4	4	7	5	4	5	4
AE	Beacon Wr Ave S	27th Ave S and S Avon Crest Pl	SW	**11**	0	0	0	8	0	0	0	0
AF	28th Ave S	S Brighton E St and S Frontenac St	W	**4**	3	4	4	3	2	2	2	3
AG	28th Ave S	S Brighton E St and S Frontenac St	E	**5**	4	7	6	7	1	1	1	1
AH	28th Ave S	S Frontenac St and Beacon Er Ave S	W	**3**	2	3	3	2	2	2	2	2
AI	28th Ave S	S Frontenac St and Beacon Er Ave S	E	**4**	1	3	2	4	0	0	0	0
AJ	S Frontenac St	28th Ave S and 30th Ave S	N	**4**	2	3	3	3	1	2	2	1
AK	S Frontenac St	28th Ave S and 30th Ave S	S	**0**	1	0	1	0	0	0	0	0
AL	Swift Ave S	Covello W Dr S and Covello E Dr S	SW	**0**	0	0	0	0	0	0	0	0
AM	Swift Ave S	Covello W Dr S and Covello E Dr S	NE	**0**	0	0	0	0	0	0	0	0
AN	Covello Dr S	Swift W Ave S and Swift E Ave S	W	**6**	2	5	4	6	5	5	5	8
AO	Covello Dr S	Swift W Ave S and Swift E Ave S	E	**8**	5	7	6	6	7	8	8	7
AP	Military Rd S	S Avon Crest Pl and Swift Ave S	W	**8**	2	2	2	2	3	3	3	3
AQ	Military Rd S	S Avon Crest Pl and Swift Ave S	E	**12**	3	2	3	3	2	3	3	3
AR	S Avon Crest Pl	Military Rd S and Beacon Wr Ave S	SW	**10**	5	5	5	6	7	5	6	8
AS	S Avon Crest Pl	Military Rd S and Beacon Wr Ave S	NE	**10**	3	5	4	7	5	3	4	2
AT	Beacon Wr Ave S	S Avon Crest Pl and 28th Ave S	SW	**0**	0	0	0	3	0	0	0	0
AU	Beacon Er Ave S	28th Ave S and S Myrtle St	NE	**8**	0	2	1	2	1	1	1	1
AV	Beacon Wr Ave S	28th Ave S and S Myrtle St	SW	**5**	0	0	0	4	0	0	0	0
AW	Swift Ave S	Covello E Dr S and S Myrtle St	N	**0**	0	0	0	0	0	0	0	0
AX	Swift Ave S	Covello E Dr S and S Myrtle St	S	**0**	0	0	0	0	0	0	0	0
AY	S Myrtle St	Swift Ave S and Beacon Wr Ave S	N	**0**	0	0	0	0	0	0	0	0

Project **Van Asselt Elementary - Interim School Field Lighting**

				Parking Supply	Parking Occupancy							
					Early Evening				Evening			
					5:45 P.M. to 6:30 P.M				8:15 P.M. to 9:00 P.M.			
Block Face ID	Street Name	Street Segment	Side of Street	Total Parking Spaces	Tues 10/4/22	Tues 1/11/22	Average	Thurs 10/13/22 (Event)	Tues 10/4/22	Tues 1/11/22	Average	Thurs 10/13/22 (Event)
AZ	S Myrtle St	Swift Ave S and Beacon Wr Ave S	S	**0**	0	0	0	0	0	0	0	0
BA	S Myrtle St	Beacon Er Ave S and S Myrtle Pl	N	**0**	0	0	0	0	0	0	0	0
BB	S Myrtle St	Beacon Er Ave S and S Myrtle Pl	S	**0**	0	0	0	0	0	0	0	0
BC	Military Rd S	S Myrtle St and Dead End 1	SW	**9**	4	4	4	6	3	5	4	4
BD	Military Rd S	S Myrtle St and Dead End 1	NE	**4**	2	3	3	3	2	2	2	3
BE	Beacon Ave S Median Strip	S Myrtle St and S Othello St	SW	**25**	7	10	9	23	18	11	15	9
BF	Beacon Er Ave S	S Myrtle St and S Othello St	NE	**20**	16	15	16	14	15	17	16	13
BG	Beacon Wr Ave S	S Myrtle St and S Othello St	SW	**14**	1	0	1	6	0	0	0	1
BH	S Othello St	Military Rd S and Beacon Wr Ave S	N	**9**	4	2	3	0	2	2	2	2
BI	S Othello St	Military Rd S and Beacon Wr Ave S	S	**12**	0	2	1	3	0	3	2	4
BJ	S Othello St	Beacon Er Ave S and 32nd Ave S	N	**6**	4	1	3	1	4	2	3	3
BK	S Othello St	Beacon Er Ave S and 32nd Ave S	S	**8**	2	3	3	1	2	3	3	2
BL	Beacon Er Ave S	S Othello St and 32nd Ave S	NE	**6**	1	0	1	1	1	0	1	1
BM	Beacon Wr Ave S	S Othello St and S Webster N St	SW	**13**	0	0	0	0	0	0	0	0
			TOTAL	**241**	**85**	**95**	**90**	**136**	**95**	**91**	**93**	**89**

Project **Van Asselt Elementary - Interim School Field Lighting**

				Parking Supply	Parking Utilization							
					Early Evening				Evening			
					5:45 P.M. to 6:30 P.M				8:15 P.M. to 9:00 P.M.			
Block Face ID	Street Name	Street Segment	Side of Street	Total Parking Spaces	Tues 10/4/22	Tues 1/11/22	Average	Thurs 10/13/22 (Event)	Tues 10/4/22	Tues 1/11/22	Average	Thurs 10/13/22 (Event)
AA	Military Rd S	Beacon Wr Ave S and S Avon Crest Pl	W	**5**	120%	40%	80%	60%	100%	120%	110%	60%
AB	Military Rd S	Beacon Wr Ave S and S Avon Crest Pl	E	**0**	NS	NS	NS	NS	NS	NS	NS	NS
AC	Beacon Wr Ave S	Military Rd S and 27th Ave S	SW	**0**	NS	NS	NS	NS	NS	NS	NS	NS
AD	Beacon Er Ave S	27th Ave S and 28th Ave S	NE	**12**	25%	33%	29%	58%	42%	33%	38%	33%
AE	Beacon Wr Ave S	27th Ave S and S Avon Crest Pl	SW	**11**	0%	0%	0%	73%	0%	0%	0%	0%
AF	28th Ave S	S Brighton E St and S Frontenac St	W	**4**	75%	100%	88%	75%	50%	50%	50%	75%
AG	28th Ave S	S Brighton E St and S Frontenac St	E	**5**	80%	140%	110%	140%	20%	20%	20%	20%
AH	28th Ave S	S Frontenac St and Beacon Er Ave S	W	**3**	67%	100%	83%	67%	67%	67%	67%	67%
AI	28th Ave S	S Frontenac St and Beacon Er Ave S	E	**4**	25%	75%	50%	100%	0%	0%	0%	0%
AJ	S Frontenac St	28th Ave S and 30th Ave S	N	**4**	50%	75%	63%	75%	25%	50%	38%	25%
AK	S Frontenac St	28th Ave S and 30th Ave S	S	**0**	NS	NS	NS	NS	NS	NS	NS	NS
AL	Swift Ave S	Covello W Dr S and Covello E Dr S	SW	**0**	NS	NS	NS	NS	NS	NS	NS	NS
AM	Swift Ave S	Covello W Dr S and Covello E Dr S	NE	**0**	NS	NS	NS	NS	NS	NS	NS	NS
AN	Covello Dr S	Swift W Ave S and Swift E Ave S	W	**6**	33%	83%	58%	100%	83%	83%	83%	133%
AO	Covello Dr S	Swift W Ave S and Swift E Ave S	E	**8**	63%	88%	75%	75%	88%	100%	94%	88%
AP	Military Rd S	S Avon Crest Pl and Swift Ave S	W	**8**	25%	25%	25%	25%	38%	38%	38%	38%
AQ	Military Rd S	S Avon Crest Pl and Swift Ave S	E	**12**	25%	17%	21%	25%	17%	25%	21%	25%
AR	S Avon Crest Pl	Military Rd S and Beacon Wr Ave S	SW	**10**	50%	50%	50%	60%	70%	50%	60%	80%
AS	S Avon Crest Pl	Military Rd S and Beacon Wr Ave S	NE	**10**	30%	50%	40%	70%	50%	30%	40%	20%
AT	Beacon Wr Ave S	S Avon Crest Pl and 28th Ave S	SW	**0**	NS	NS	NS	NS	NS	NS	NS	NS
AU	Beacon Er Ave S	28th Ave S and S Myrtle St	NE	**8**	0%	25%	13%	25%	13%	13%	13%	13%
AV	Beacon Wr Ave S	28th Ave S and S Myrtle St	SW	**5**	0%	0%	0%	80%	0%	0%	0%	0%
AW	Swift Ave S	Covello E Dr S and S Myrtle St	N	**0**	NS	NS	NS	NS	NS	NS	NS	NS
AX	Swift Ave S	Covello E Dr S and S Myrtle St	S	**0**	NS	NS	NS	NS	NS	NS	NS	NS
AY	S Myrtle St	Swift Ave S and Beacon Wr Ave S	N	**0**	NS	NS	NS	NS	NS	NS	NS	NS

Project **Van Asselt Elementary - Interim School Field Lighting**

Block Face ID	Street Name	Street Segment	Side of Street	Parking Supply: Total Parking Spaces	Parking Utilization: Early Evening 5:45 P.M. to 6:30 P.M: Tues 10/4/22	Tues 1/11/22	Average	Thurs 10/13/22 (Event)	Evening 8:15 P.M. to 9:00 P.M.: Tues 10/4/22	Tues 1/11/22	Average	Thurs 10/13/22 (Event)
AZ	S Myrtle St	Swift Ave S and Beacon Wr Ave S	S	**0**	NS	NS	NS	NS	NS	NS	NS	NS
BA	S Myrtle St	Beacon Er Ave S and S Myrtle Pl	N	**0**	NS	NS	NS	NS	NS	NS	NS	NS
BB	S Myrtle St	Beacon Er Ave S and S Myrtle Pl	S	**0**	NS	NS	NS	NS	NS	NS	NS	NS
BC	Military Rd S	S Myrtle St and Dead End 1	SW	**9**	44%	44%	44%	67%	33%	56%	44%	44%
BD	Military Rd S	S Myrtle St and Dead End 1	NE	**4**	50%	75%	63%	75%	50%	50%	50%	75%
BE	Beacon Ave S Median Strip	S Myrtle St and S Othello St	SW	**25**	28%	40%	34%	92%	72%	44%	58%	36%
BF	Beacon Er Ave S	S Myrtle St and S Othello St	NE	**20**	80%	75%	78%	70%	75%	85%	80%	65%
BG	Beacon Wr Ave S	S Myrtle St and S Othello St	SW	**14**	7%	0%	4%	43%	0%	0%	0%	7%
BH	S Othello St	Military Rd S and Beacon Wr Ave S	N	**9**	44%	22%	33%	0%	22%	22%	22%	22%
BI	S Othello St	Military Rd S and Beacon Wr Ave S	S	**12**	0%	17%	8%	25%	0%	25%	13%	33%
BJ	S Othello St	Beacon Er Ave S and 32nd Ave S	N	**6**	67%	17%	42%	17%	67%	33%	50%	50%
BK	S Othello St	Beacon Er Ave S and 32nd Ave S	S	**8**	25%	38%	31%	13%	25%	38%	31%	25%
BL	Beacon Er Ave S	S Othello St and 32nd Ave S	NE	**6**	17%	0%	8%	17%	17%	0%	8%	17%
BM	Beacon Wr Ave S	S Othello St and S Webster N St	SW	**13**	0%	0%	0%	0%	0%	0%	0%	0%
			TOTAL	**241**	**35%**	**39%**	**37%**	**56%**	**39%**	**38%**	**39%**	**37%**