DATE:       June 13, 2014

TO:        Recipients of the State Environmental Policy Act Determination of Non-
           Significance (SEPA DNS) for the Pinehurst Elementary School Project

FROM:      Pegi McEvoy, SEPA Environmental Official

Seattle Public Schools (SPS) has identified that the SEPA Environmental Checklist dated April 15, 2014 and amended June 11, 2014, meets our environmental review needs for the current proposal to demolish the existing Pinehurst School building and construct a new Hazel Wolf K-8 School at the same site. With funding from the Building Excellence Phase IV Capital Improvement Program, the existing buildings will be demolished and a new school will be constructed in its place. A 680-student capacity school will house the Hazel Wolf K-8 (formerly Jane Addams K-8) Science, Technology, Engineering and Mathematics (STEM) program. Construction for the proposed project is scheduled to begin in July 2014 with demolition and abatement. The total construction period is expected to last for approximately 26 months, completing in August 2016.

After conducting an independent review, SPS has determined that the project does not have significant adverse impacts on the environment as documented with the enclosed Determination of Non-Significance (DNS).

The SEPA Environmental Checklist, April 15, 2014 and amended June 11, 2014, discusses the potential environmental impacts that could result from the demolition, new construction and operation of two new schools. A draft of the Checklist was released for public comment from April 30, 2014 through May 19, 2014. Comments received during the comment period informed the information which the DNS is based. The responses to written comments received are documented in the SEPA Public Comments and SPS Responses summary, Attachment A to this letter. Actual correspondence and other background information is available on our websites at: http://sepa.www.seattleschools.org.

Thank you for your participation in the Seattle Public Schools Building Excellence IV Capital Program. Your involvement has helped to make the new Hazel Wolf K-8 School at Pinehurst a better project.

Enclosures – Determination of Non-Significance and SEPA Environmental Checklist
Attachment A – Summary of Public Comments on SEPA Environmental Checklist

Pegi McEvoy, Assistant Superintendent, Operations, District SEPA Official
PO Box 34165, MS 22-183, Seattle WA 98124  *(206) 252-0102
WAC 197-11-970 Determination of Nonsignificance (DNS).

DETERMINATION OF NONSIGNIFICANCE

PINEHURST ELEMENTARY SCHOOL PROJECT

Description of proposal.

Proponent. Seattle School District

Location of proposal, including street address, if any. Pinehurst Elementary School, 11530 12th Avenue NE, Seattle, Washington.

Title of document being adopted. SEPA Checklist for the Pinehurst Elementary School Project.

Date adopted document was prepared. April 15, 2014, amended June 11, 2014.

Description of document (or portion) being adopted. Seattle Public Schools (SPS) proposes to replace the existing Pinehurst School with a new building for the Hazel Wolf K-8 (formerly Jane Addams K-8) program. Hazel Wolf K-8 is part of the Science, Technology, Engineering and Mathematics (STEM) program with a particular focus on environmental science. In addition to a rigorous academic program, the school offers Spectrum and Walk to Math for gifted students, bilingual services for English Language Learners (ELL), and special education services. The existing Jane Addams School would be converted to a conventional middle school.

The current program at Pinehurst would move to the Lincoln school site during construction, located at 4400 Interlake Avenue N. Ultimately, the current Pinehurst program is planned to be part of the new Wilson-Pacific Middle School project, located at 1330 North 90th Street, which is being evaluated separately as part of the larger Wilson-Pacific Schools project analysis. Students currently attending Pinehurst would be able to choose which school program to attend after project completion.

The existing single-story facilities at the Pinehurst School site would be demolished, including the buildings, paved areas, utilities, and other existing site features. The new facilities would include an approximately 92,000 square-foot, 3-story school building with 25 classrooms, science, art and music rooms, a library, a computer lab, a cafeteria, and a gymnasium. A before- and after-school program would also be created in the new building. Other site development would include parking areas, new utility connections, and a turf playfield. An outdoor classroom area, green roofs, and a variety of garden types would be included in the landscaping as part of the environmental science program. Storm water runoff would be collected and conveyed to a bioretention system, and then to a below-ground detention vault. Stormwater from the vault would then be conveyed to the City’s storm drains.

This checklist, along with program planning, design, construction, and financial information, will be used by the Superintendent to develop a recommendation to the School Board on the project.

If the document being adopted has been challenged (WAC 197-11-630), please describe. The document has not been challenged to date.
The document is available to be read at (place/time). John Stanford Center, 2445 Third Avenue South, Seattle (attn: Mike Skutack, Phone: 206-252-0669) and on line at http://sepa.www.seattleschools.org.

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030 (2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

☐ There is no comment period for this DNS.

☐ This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

☒ This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 15 days from the date below.

This DNS may be appealed by written notice setting forth the reasons for the appeal, received not later than 15 days from the date below, sent to:

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

We have identified and adopted this document as being appropriate for this proposal after independent review. The document meets our environmental review needs for the current proposal and will accompany the proposal to the decision-maker.

Name of agency adopting document. Seattle Public Schools

Responsible official Pegi McEvoy, Assistant Superintendent for Operations

Position/title Seattle Public Schools SEPA Official

Phone (206) 252-0102

Address MS 22-183, P.O. Box 34165, Seattle, WA 98124-1165

Date 6-13-14 Signature Pegi McEvoy
Pinehurst School Project
Final SEPA Checklist

June 11, 2014

PREPARED FOR:

SEATTLE PUBLIC SCHOOLS
2445 THIRD AVENUE SOUTH
SEATTLE, WA 98134

PREPARED BY:

ENVIRONMENTAL SCIENCE ASSOCIATES
5309 SHILSHOLE AVENUE NW, STE. 200
SEATTLE, WA 98107
INTRODUCTION

Seattle Public Schools (SPS) proposes to replace the existing Pinehurst kindergarten through eighth grade (K-8) school with a new building for the Hazel Wolf K-8 program. The project would be funded by the BEX IV Capital Improvement Program. The replacement and renovation of schools was considered in the Building Excellence Phase IV Capital Improvement Program Programmatic Environmental Impact Statement (EIS)(SPS, 2012).

In order to accommodate expected enrollment increases, SPS proposes to build a 680-student capacity building at the Pinehurst site that will house the Hazel Wolf K-8 Science, Technology, Engineering and Mathematics (STEM) program. The existing Jane Addams School would be converted to a conventional middle school. Students currently attending Pinehurst K-8 would continue to be able to choose which school program to attend through the student assignment plan after project completion.

The project includes construction of an approximately 92,000 square-foot, 3-story school, parking areas, a turf playfield, and outdoor classroom features for the environmental science program.

The following analysis provides information that was not available at the time of publication of the BEX IV EIS.
TABLE OF CONTENTS

INTRODUCTION........................................................................................................................................ i
TABLE OF CONTENTS ........................................................................................................................... ii
ENVIRONMENTAL CHECKLIST ........................................................................................................... 1

A. BACKGROUND ............................................................................................................................... 1
B. ENVIRONMENTAL ELEMENTS ......................................................................................................... 3
   1. Earth.................................................................................................................................... 3
   2. Air....................................................................................................................................... 5
   3. Water............................................................................................................................... 6
   4. Plants............................................................................................................................. 8
   5. Animals............................................................................................................................ 10
   6. Energy and Natural Resources......................................................................................... 10
   7. Environmental Health....................................................................................................... 11
   8. Land and Shoreline Use ................................................................................................. 13
   9. Housing............................................................................................................................ 15
   10. Aesthetics........................................................................................................................ 15
   11. Light and Glare ............................................................................................................ 16
   12. Recreation ..................................................................................................................... 16
   13. Historic and Cultural Preservation ................................................................................ 17
   14. Transportation ................................................................................................................ 19
   15. Public Services................................................................................................................ 28
   16. Utilities............................................................................................................................ 28

C. SIGNATURE................................................................................................................................ 29

REFERENCES.......................................................................................................................................... 30

TABLES

Table 1  Parking Demand Survey Results ........................................................................................ 22
Table 2  Trip Generation Estimates ................................................................................................. 26

APPENDICES

Appendix A  Construction Best Management Practices
Appendix B  Tree Inventory and Arborist Report
Appendix C  Transportation Impact Analysis
ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of the proposed project:
   Pinehurst School Project

2. Name of Applicant:
   Seattle Public Schools

3. Address and telephone number of applicant and contact person:
   Mike Skutack
   2445 3rd Avenue South
   Seattle, WA  98134
   (206) 252-0669

4. Date checklist prepared:
   June 11, 2014

5. Agency requesting checklist:
   Seattle Public Schools

6. Proposed timing or schedule (including phasing, if applicable):
   Construction for the proposed project is scheduled to begin in July 2014 with
demolition and abatement. The total construction period is expected to last for
approximately 26 months, completing in August 2016.

7. Plans for future additions, expansion, or further activity related to or
c connected with this proposal:
   No future additions, expansions or other activities are connected with this
proposal.

8. Environmental information that has been prepared, or will be
   prepared, directly related to this project:
   - Building Excellence Phase IV Capital Improvement Program Environmental
   - Subsurface Exploration and Preliminary Geotechnical Engineering Report,
   - Tree Inventory and Arborist Report, Tree Solutions Inc., December 2013
     (Appendix B).
     (Appendix C).
9. Applications that are pending for governmental approvals or other proposals directly affecting the property covered by the proposal:

The City of Seattle Master Use Permit (MUP) application for demolition and abatement was submitted on January 23, 2014. The MUP for construction of the new school was submitted on March 19, 2014.

10. List of governmental approvals or permits that will be needed for the proposal:

Other permits and approvals evaluated under the MUP process include:

- Demolition
- Grading
- Building/Mechanical
- Stormwater Control
- SDOT Street Improvement Permit
- A Certificate of Approval from the City of Seattle Landmarks Preservation Board.

11. Brief, complete description of the proposal, including the proposed uses and the size of the project and site:

Seattle Public Schools (SPS) proposes to replace the existing Pinehurst K-8 School with a new building for the Hazel Wolf K-8 (formerly Jane Addams K-8) program (Figure 1). Hazel Wolf K-8 is part of the Science, Technology, Engineering and Mathematics (STEM) program with a particular focus on environmental science. In addition to a rigorous academic program, the school offers Spectrum and Walk to Math for gifted students, bilingual services for English Language Learners (ELL), and special education services (SPS, 2013).

The existing Jane Addams School would be converted to a conventional middle school.

The current program at Pinehurst would move to the Lincoln school site during construction, located at 4400 Interlake Avenue N. Ultimately, the current Pinehurst program is planned to be part of the new Wilson-Pacific Middle School project, located at 1330 North 90th Street, which is being evaluated separately as part of the larger Wilson-Pacific Schools project analysis. Work at the Wilson Pacific site is scheduled to be completed in 2017. Students currently attending Pinehurst would continue to be able to choose which school program to attend through the student assignment plan after project completion. The project would be funded by the Building Excellence (BEX IV) Capital Improvement Program.

The existing single-story facilities at the Pinehurst School site would be demolished, including the buildings, paved areas, utilities, and other existing site features. The site would be re-graded for the new school configuration. The new facilities would include an approximately 92,000 square-foot, 3-story school building with 25 classrooms, science, art and music rooms, a library, a computer
lab, a cafeteria, and a gymnasium. A before- and after-school program would also be created in the new building.

Other site development would include parking areas, new utility connections, and a turf playfield. An outdoor classroom area, green roofs, and a variety of garden types would be included in the landscaping as part of the environmental science program. Storm water runoff would be collected and conveyed to a bioretention system, and then to a below-ground detention vault. Stormwater from the vault would then be conveyed to the City’s storm drains.

12. Location of the proposal, including street address, if any, and section, township, and range; legal description; site plan; vicinity map; and topographical map, if reasonably available:

The project is located at 11530 12th Avenue NE, Seattle, Washington (section 29, township 26, range 4) as shown on Figure 1. The 3.2-acre site lies in within the Pinehurst neighborhood in North Seattle on parcel number 204450-0390.

B. ENVIRONMENTAL ELEMENTS

1. Earth

Associated Earth Sciences, Inc. prepared a Draft Subsurface Exploration and Preliminary Geotechnical Engineering Report for the proposed project on February 21, 2013. The report describes the geologic conditions, potential hazards, and the results of subsurface exploration. The following section is based on this report.

a. General description of the site (underline):

   Flat, rolling, hilly, steep slopes, mountainous.

   The site is generally flat with outer areas of steeper engineered slopes. The outer portions of the parcel are steeply sloped away from the building and out towards the surrounding streets. The site generally slopes down to the southwest.

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

   There is an approximate 50% slope on the western edge of the site along 12th Avenue NE, contained by a small retaining wall. This slope at the northern property line, separating SPS property from the public right-of-way, is contained by a separate 10-foot retaining wall. Both walls were constructed when the site was previously developed. Due to the low height of the sloped areas, they do not appear to meet City of Seattle definitions for Steep Slopes under the Environmentally Critical Areas code (SMC 25.09.020).
c. **What general types of soils are found on the site (for example clay, sand, gravel, peat, muck)? Specify the classification of agricultural soils and note any prime farmland.**

Based on the exploratory borings conducted at the site, there is a varying layer of fill from previous development over the central portion of the site, with a maximum depth of approximately eight feet on the west side, to two to three feet on the east side. No fill was found in the borings on the north or south ends of the site. In these areas, and beneath the fill in the central portion of the site, is a layer of native sediments consisting of Vashon lodgement till (medium dense to very dense sand with silt and sand), which is suitable for structural support when properly prepared. One boring on the north end of the site showed a layer of Vashon advance outwash (native sediments of sand and gravel) beneath the till, which may be suitable for reuse in structural fill.

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

There are no visual signs of instability on the site or in the immediate vicinity. Based on the site topography and the soil types found during the geotechnical investigation, the site is considered to have a low potential for landslides and liquefaction.

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

The proposed building is to be set at approximately the same elevation (320-324) as the existing building. Some site grading will be required at the locations of the loading dock access drive, the stormwater vault, the grass play field, and the soft play area at the southwest corner of the site. Fine grading will also be required where pathways cut through the site. Overall the site will require 14,100 cubic yards of cut and 4,000 cubic yards of fill. It is assumed at this time that all excavated material will be exported off site. Structural fill imported for the project will be from an approved source. Export material will be hauled off to an approved location.

f. **Could erosion occur as a result of clearing, construction, or use?**

According to the geotechnical report from AESI, the erosion potential of the project site soils is high due to the presence of fill material. The disturbance of soils during construction also has the potential to increase erosional effects. In order to meet the current Ecology Construction Storm Water General Permit requirements, a properly developed, constructed, and maintained erosion control plan consistent with City of Seattle standards (SMC 22.800), along with construction best management practices (BMPs) and turbidity monitoring, would be required to control erosion during construction of the proposed project.
g. **About what percent of the site will be covered with impervious surfaces after project construction (for example buildings or asphalt)?**

Currently, approximately 58% of the site is covered with impervious surfaces. After project completion, approximately 61% of the site would be impervious.

h. **Describe the proposed measures to reduce or control erosion, or other impacts to the earth, if any.**

The project would require a Temporary Erosion and Sedimentation Control (TESC) plan, as required by the Washington State Department of Ecology (Ecology). Other BMPs and construction water quality treatment measures would be installed to minimize erosion and to treat stormwater runoff during construction. BMPs specific to the site and project would be specified by SPS in the construction contract documents, and the construction contractor would be required to implement them. Appendix A lists appropriate BMP measures that could be used at the project site to minimize erosion potential.

2. **Air**

a. **What types of emissions to the air would result from the proposal (e.g. dust, automobile, odors, industrial, wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities, if known.**

There would be a small increase (quantities are unknown) in exhaust emissions from construction vehicles and equipment, and a temporary increase in fugitive dust due to earthwork for the project. The most noticeable increase in emissions and fugitive dust would occur during demolition and earthwork. Approximately 1,410 truck trips would be generated by the hauling of cut and fill, distributed over approximately 30 weeks. Exhaust emissions would also be generated from construction employee and equipment traffic to and from the site. The number of workers at the project site at any one time would vary depending upon the nature and construction phase of the project.

The potential air quality impacts generated by the proposed project would be temporary in nature, occurring only during construction activities. Upon completion, the project would not cause a change in air quality over existing conditions. The mitigation listed in Section 2.c and in Appendix A would ensure that the effects of construction activities on air quality would be minimized.

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

There are no off-site sources of emissions or odors that would affect the proposed project.
c. Describe proposed measures to reduce or control emissions or other impacts to air, if any.

The contractor chosen for the proposed project would be required to comply with Puget Sound Clean Air Agency (PSCAA) regulations. Regulations that apply to the proposed project include Regulation I, Section 9.11 prohibiting the emission of air contaminants that would or could be injurious to human health, plant or animal life, or property; and Regulation I, Section 9.15 prohibiting the emission of fugitive dust, unless reasonable precautions are employed to minimize the emissions. See also the mitigation for erosion, listed in section B.1.h, above. Additional measures that could be incorporated to minimize impacts to air quality from construction activities are described in Appendix A.

3. Water

a. Surface:

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, and wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

There are no surface water bodies on or in the vicinity of the project site.

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

The project would not require work on, in, or adjacent to any waters.

3. Estimate the amount of fill and dredge material that could 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 materials.

No fill or dredge materials would be placed in or removed from any surface water or wetlands.

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

No water withdrawals or diversions would be required for the project.

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

The project site does not lie within a 100-year floodplain.
6. **Does the proposal involve discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

The project would not involve the discharge of waste materials to any surface waters. All waste materials from the project, including grading spoils and demolition debris, would be transported off-site to an appropriate disposal facility.

b. **Ground**

1. **Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.**

   Investigations for the project geotechnical report (AESI, 2013) included six soil borings on the site. Ground water seepage was identified in three of the borings above the water table. The ground water observed was typical of “perched” water and will vary, depending on season, soil gradation, and adjacent topography. Excavations for utilities or other facilities may encounter perched ground water during construction; however, no extensive dewatering is anticipated to be needed.

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any. 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) is expected to serve.**

   No waste material would be discharged into the ground. The project site would not utilize septic tanks.

c. **Water Runoff (including storm water)**

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

   Storm water flows on the project site would be generated by rooftops, paved surfaces, and other hardscapes. Storm water runoff would be collected and conveyed to water quality and runoff control facilities. Water treatment facilities would consist of Filterra Bioretention systems. The treated runoff would discharge to a below-ground detention vault. Stormwater from the vault would then be conveyed to the City’s storm drains in 12th Avenue NE and Pinehurst Way NE.
2. **Could waste materials enter ground or surface waters? If so, generally describe.**

   Sediment generated during construction could enter ground or surface water; however, BMPs (e.g., installation of temporary filter fabric in the existing catch basins, etc.) would be implemented to minimize sedimentation leaving the site.

d. **Describe proposed measures to reduce or control surface, ground, and runoff water impacts, if any.**

   A comprehensive storm drainage system would be installed in accordance with the 2009 Volume 3 Stormwater Flow Control and Water Quality Treatment Technical Requirements Manual. Runoff would be mitigated by the use of green roofs and with a detention vault below-ground. The proposed design will incorporate Green Stormwater Infrastructure (GSI) to the maximum extent feasible. Areas not mitigated through GSI will be routed through the detention vault.

   During construction, BMPs would be implemented to ensure that sediment originating from disturbed soils would be retained within the limits of disturbance. BMPs may include installation of a rock construction entrance, catch basin filters, interceptor swales, hay bales, sediment traps, and other appropriate cover measures. BMPs specific to the site and project would be specified by SPS in the construction contract documents that the construction contractor would be required to implement. See also section B.1.h above and Appendix A, for additional BMPs and mitigation measures.

4. **Plants**

   a. **Types of vegetation found on-site:**

   Deciduous trees: Birch, dogwood, maple, oak, hawthorn, sweet gum and other landscape plantings

   Evergreen trees: Cedar, pine, spruce, cypress, and other landscape plantings

   Shrubs: Various horticultural varieties

   Grass: Landscape planting

   Pasture: None

   Wet Soil Plants: None

   Water Plants: None

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

   Most of the existing vegetation will be removed as part of proposed construction, consisting of mainly grasses, shrubs, and small caliper trees. The site was surveyed by certified arborists at Tree Solutions, Inc. to
inventory and assess the condition of the existing trees. There are currently 27 trees on the site that measure six inches in diameter at standard height (DSH) or greater. Ten of the trees are proposed for removal. There are currently four trees on the site that are classified as “exceptional” under the City of Seattle Tree Protection Ordinance (SCM 25.11), three of which would be retained. The one exceptional tree planned for removal, a 20-inch shore pine, is located in a transition zone from higher to lower elevations near the proposed playfield. This tree is currently in poor health and likely to have a short useful life expectancy (Tree Solutions, Inc., 2013; Appendix B). All other exceptional trees, as well as others planned to be retained, would be protected during construction to prevent damage from ground-disturbing activities.

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

The Washington State Department of Natural Resources (WDNR) Priority Habitats and Species (PHS) database lists all known occurrences of threatened or endangered species and critical habitat. The database showed there are no threatened or endangered species or critical habitat in the project area (WDFW, 2013).

d. **Describe proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on-site.**

Landscaping for the proposed project would consist of a variety of trees and other vegetation. Approximately 70 trees and over 200 shrubs in addition to groundcovers would be planted across the site. Specialty vegetation areas, included in the design as part of the environmental science program, would include a Northwest natives garden, a wildlife garden, a pond and wetland, a raingarden and a butterfly garden.

Seattle’s tree protection ordinance requires the one-to-one replacement of exceptional trees. Replacement trees must be of a similar type and approved by the Director of the Department of Planning and Development (DPD) and must provide, upon maturity, a canopy cover equal or greater to that prior to tree removal (SMC 25.11.090). The landscaping and planting plans will be reviewed by DPD prior to issuance of a master use permit.
5. Animals
   a. Underline any birds and animals which have been observed on or near the site or are known to be on or near the site:
      Fish: None
      Amphibians: None
      Reptiles: None
      Birds: Species adapted to urban areas such as American crow, northern flicker, Bewick’s wren, black-capped chickadee, spotted towhee, song sparrow, house sparrow, and pigeons
      Mammals: Species adapted to urban areas such as Norway rat, raccoons, opossums
   b. List any threatened or endangered species or critical habitat near the site.
      The Washington State Department of Natural Resources (WDNR) Priority Habitats and Species (PHS) database lists all known occurrences of threatened or endangered species and critical habitat. The database showed there are no threatened or endangered species or critical habitat in the project area (WDFW, 2013).
   c. Is the site part of a migratory route? If so, explain.
      The Puget Sound area is located within the Pacific Flyway, which is a flight corridor for migrating waterfowl and other avian fauna. The Pacific Flyway extends south from Alaska to Mexico and South America. No portion of the proposed project would interfere with or alter the Pacific Flyway.
   d. Proposed measures to preserve or enhance wildlife, if any.
      The project is not expected to have any negative impacts on animals within or near the project site; therefore, no mitigation is required.

6. Energy and Natural Resources
   a. What kinds of energy (electric, natural gas, oil, wood, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
      During construction, gasoline- and diesel-powered equipment would be used. The new school facilities would require electricity for lighting and operating equipment and other powered appliances.
      The proposed HVAC system for the new school will consist of a ground source heat pump system. Heat recovery units are proposed to recover heat from the exhaust air stream to preheat outside air. The system will provide additional energy savings measures via occupancy sensor based
operation. Carbon dioxide demand control ventilation will minimize the amount of energy required to temper outside air supplied to the building.

**b. Would the project affect the potential use of solar energy by adjacent properties? If so, explain.**

The project would not affect the potential use of solar energy by any 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.**

Funding for proposed project would come from the BEX IV levy. In December 2011, the School Board adopted a policy for capital levy planning and the Guiding Principles for BEX IV. The planning policy states that the Board strives to reduce district operating costs and carbon emissions by using designs that create conservation opportunities and minimize negative impacts on the environment, while considering the life cycle costs of the projects. The BEX IV guiding principles state that the BEX IV program will “Reduce resource usage, increase conservation and minimize operational costs, using life cycle cost approaches.”

Under Executive Order 05-01, public school construction projects receiving state assistance must be built to the Washington Sustainable Schools Protocol, or to LEED silver standards. The program requires a 10 percent reduction in energy use beyond what is required by the Washington State Energy Code (RCW 39.35D.040). Replacing the existing older school building with a new building is expected to greatly improve energy savings. The utility systems described above would comply with Executive Order 05-01.

**7. Environmental Health**

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

1. **Describe special emergency services that might be required.**

   No special emergency services would be required.

2. **Describe proposed measures to reduce or control environmental health hazards.**

   Hazardous materials abatement will occur prior to building demolition, including removal of asbestos-containing materials, lead-containing paint/components, PCB light ballasts and mercury-containing light tubes. Hazardous materials would be disposed of according to regulatory requirements at an approved hazardous waste facility.
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 adversely affect the proposal.

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

   Temporary noise impacts to nearby residents could result from vehicle and equipment operation during construction. Construction hours and noise levels would comply with the City of Seattle noise standards. Maximum permissible sound levels in residential communities are not to exceed 55 dB(A)s. However, construction activities are permitted to exceed the established maximum level by 25 dB(A) by the Seattle Noise Control Ordinance (SMC 25.08.425). Maximum permissible sound levels established in the SMC may be exceeded by construction activities between 7:00 a.m. and 10:00 p.m. on weekdays, and between the hours of 9:00 a.m. and 10:00 p.m. on weekends (City of Seattle, 2013a).

   Long-term, the expanded enrollment at the new school would cause an increase in noise during daytime hours. This would include student voices, school bells, regular vehicular traffic, and building mechanical equipment. Noise would generally occur during normal school operating hours (approximately 7:00 AM to 6:00 PM on weekdays and 9:00 AM to 6:00 PM on Saturdays).

   The final design of the project would be required to comply with SMC 23.45.570(F)(4) for public institutions in residential zones by placing the following features and equipment at least 20 feet from any abutting residentially zoned lot:

   - Outdoor play equipment and game courts
   - Operable windows of gymnasiums or assembly halls
   - Kitchen ventilation equipment
   - Air conditioning or heating mechanisms
   - Any similar mechanisms and features causing noise and/or odors as determined by the Director of DPD.

   City Park Department use of the field may bring voices and whistles to the field area from 4:00 PM to 9:00 PM on weekdays and during the daytime on weekends.
3. **Describe proposed measures to reduce or control noise impacts, if any.**

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

After construction, the site would continue to serve as a school and no changes in noise levels are expected over existing conditions. Therefore, no mitigation measures are required.

8. **Land and Shoreline Use**
   a. **What is the current use of the site and adjacent properties?**
      
      Current uses on the project site include education and child care. The school is located in a mixed residential and commercial neighborhood. There are single family residences and commercial businesses to the north of the school, single-family residences to the west, and multi-family residences and commercial to the southeast.
   
   b. **Has the site been used for agriculture? If so, describe.**
      
      The site has not been previously used for agriculture.
   
   c. **Describe any structures on the site.**
      
      The site currently houses the Pinehurst school building and associated facilities.
   
   d. **Will any structures be demolished? If so, what?**
      
      All of the existing buildings and structures currently on the site would be demolished with the proposed project.
   
   e. **What is the current zoning classification of the site?**
      
      The current zoning classification of the site is Residential, Single-family 7200 (SF 7200) (City of Seattle, 2013b).

      The Seattle Municipal Code contains development standards for public schools in residential zones in SMC 23.51B.002. The Seattle Land Use Code (Chapter 23.79) includes a procedure by which departures from the required development standards of the code can be granted for public school structures. The departure process requires SPS to apply to the Director of DPD for departures. A Development Standard Advisory Committee is established to gather public comments and to make recommendations on modifications of the development standards. The Committee is comprised of community residents and business owners, neighborhood representatives, parent representatives associated with the school site, a representative from the Joint Advisory Commission on
Education, and a non-voting representative of the DPD. The Land Use Code establishes specific responsibilities for the Committee, as well as procedures for notice of committee meetings and appeal processes. In reaching recommendations, the advisory committee is directed to consider the project’s relationship with the surrounding area. Five issues are identified for the Committee’s consideration (SMC 23.79.008.C.1.a):

1. Appropriateness in relation to the character and scale of the surrounding area;
2. Presence of edges (significant setback, major arterials, topographical breaks, and similar features) which provide a transition in scales;
3. Location and design of structures to reduce the appearance of bulk;
4. Impacts on traffic, noise, circulation and parking in the area; and
5. Impacts on housing and open spaces.

Of these considerations, issues 1 through 4 relate to proposed elements of the Pinehurst K-8 School Project. See Sections B.10.a and B.14.c below for information on the required departures for building height and parking.

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

The current comprehensive plan designation for the site is Single Family Residential (City of Seattle, 2013c).

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

The project does not lie within the shoreline zone.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

There are no designated environmentally sensitive areas on the project site.

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

No people would reside in the completed project. The new school would have approximately 50 new full-time and 25 part-time staff.

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

There are 23 staff currently working at the Pinehurst school that would be relocated, as described in Section A.11, above. No people would be displaced by the proposed project.
k. **Describe proposed measures to avoid or reduce displacement impacts, if any.**

No displacement impacts are anticipated for the proposed project, thus no measures are required.

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

The proposed project would not change the current land use of the site as an educational facility, and is consistent with projected land uses and plans.

Portions of the proposed project that would not comply with the requirements of the current zoning classification will follow the departure process as outlined in Section B.8.e, above. By complying with the conditions outlined in the departure process, the proposed project would not have significant impacts on land use.

9. **Housing**

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

   No housing 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 units would be eliminated as a result of the project.

c. **Describe proposed measures to reduce or control housing impacts, if any.**

   No measures would be required.

10. **Aesthetics**

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

   The proposed school would be a 3-story structure that is approximately 50 feet at the highest point. The tallest portions of the buildings would be the mechanical penthouses on the rooftops. The Seattle Municipal Code establishes a maximum height for a public school in a residential zone of 35 feet plus 15 feet for a pitched roof (SMC 23.44.017). The proposed addition will require a departure from building height limits as allowed under SMC 23.44.017 and SMC 23.79. See Section B.8.e, above, for additional information on the departure process.

   The new building exteriors would be made of finished concrete (CMU), metal siding, and potentially masonry.
b. **What views in the immediate vicinity would be altered or obstructed?**

Views from homes on 12th Avenue NE and NE 117th Street may change somewhat as a result of the proposed project. Current views from these areas are of a single-story school facility and the mixed residential and commercial areas beyond. After project construction, views would still be of a school facility, but the new three-story structure would be taller and larger, likely blocking more of the views of properties beyond the school. However, the nature of the views (of neighborhood residential and commercial buildings) would not change.

c. **Describe proposed measures to reduce aesthetic impacts, if any.**

Although the features and building seen by residents may change with construction of the project, the view from all directions would remain that of school facilities. No mitigation would be required.

11. **Light and Glare**

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

   Lighting on the site is anticipated to remain similar to present conditions. Full cutoff pole-mount lights would be used for the parking lots with little to no light spill-over (off-site). Full cutoff wall-mount light would be used at building walkways and service areas for safety while maintaining zero light pollution and little to no light spill-over.

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

   No light or glare from the completed project would create a safety hazard or interfere with views.

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

   No off-site sources of light or glare would affect this proposal.

   d. **Describe the proposed measures to reduce or control light and glare impacts, if any.**

   No impacts from light or glare are anticipated as a result of the project, thus no mitigation is required.

12. **Recreation**

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

   The existing school facilities include several play areas including open grass areas, barked areas with playground equipment, and asphalt areas for basketball and other activities.
Pinehurst Park is a city park located approximately 0.10 miles (about 2 ½ blocks) directly north of the project site. Another city park, Victory Creek Park, is located approximately 0.15 miles to the south.

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

All of the existing recreational uses on the project site would be replaced and improved with the proposed project. The proposed project includes new covered asphalt area, a turf play area, a new engineered wood fiber playground, and a gymnasium. Portions of the existing playground equipment would be reused onsite.

c. **Describe proposed measures to reduce or control impacts on recreation, including recreational opportunities to be provided by the project or applicant.**

Although the recreational facilities would not be available for use during construction of the new school, all facilities would be replaced. No long-term impacts are expected, thus no mitigation is required.

13. **Historic and Cultural Preservation**

a. **Are there any places or objects listed on or eligible for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.**

Pinehurst Elementary School was designed by Mallis & DeHart and built in 1950. The building meets the minimum age for consideration as a Seattle Landmark (SMC 25.12.350) and for inclusion on the National Register of Historic Places (NRHP) and Washington Heritage Register (WHR). In February 2013, SPS nominated the School for review by the Seattle Landmarks Preservation Board (LPB). The LPB reviewed the nomination on March 20, 2013 and determined the Pinehurst Primary School did not meet necessary criteria for designation as a Landmark.

Aside from Pinehurst Elementary School, there are no other recorded cultural resources listed on or determined eligible for listing on the NRHP, WHR, or the Seattle Landmarks register within or adjacent to the project location.

b. **Generally describe any landmarks or evidence of historic, archeological, scientific, or cultural importance known to be on or next to the site.**

There is evidence of Native American occupation and land use in the vicinity of the project site. Haller Lake (seesáhLtub or “Calmed down a Little”) was used as a refuge location during slave raids and was a hunting spot, based on the discovery of projectile points (Thrush, 2007). Haller Lake was likely connected by trails to surrounding places such as Licton Springs or lééQtud (“Red Paint”) and Green Lake or dxWTLusH (Thrush, 2007). The location of today’s Northgate Shopping Center and North
Seattle Community College was known as *hLooQWqeed* ("Bald Head/Peeled Head") and historically featured marshes containing highbush cranberries, marsh tea, and other plant resources (Thrush, 2007). The marshes drained into Thornton Creek which featured a village at its mouth on the shore of Lake Washington known as *dxWXóóbud* or Silenced/quieted Place (Thrush, 2007). All of these recorded places indicate that the surrounding area was used by Native Americans. DAHP’s Statewide Predictive Model, used in part to assess the risk of encountering precontact archaeological resources, classifies the project site as High Risk (Survey Highly Advised) (DAHP, 2013).

The project area was first patented by George C. Fisher in 1872. By 1895 it had been logged and was accessible by a road roughly matching today’s Pinehurst Way NE (USGS, 1895). In 1908, then-owner S. P. Dixon platted and subdivided the land, reserving the portion containing today’s school site (Anderson Map Company, 1907; Kroll Map Company, 1912; Kroll Map Company, 1926; Metsker Map Company, 1936). This area remained undeveloped into the 1930s (Pacific Aerial Survey, 1937). The school opened in 1950 as Pinehurst Primary School and was part of the Shoreline School District until it was annexed into the Seattle School District in 1953 (Thompson and Marr, 2002).

The school is adjacent to predominately single-family residences built in the 1930s and 1940s. No cultural resource surveys have been conducted within or immediately adjacent to the project location. According to the Washington State Department of Archaeology and Historic Preservation (DAHP), there are no recorded archaeological sites or cemeteries within or adjacent to the project location.

c. **Describe proposed measures to reduce or control impacts, if any.**

SPS prepared a nomination report for review by the LPB to determine if the property meets necessary significance criteria. After review of the nomination on March 20, 2013, LPB determined that the school does not meet Seattle Landmark criteria and denied the nomination (LPB, 2013).

Based on DAHP’s Statewide Predictive Model classification of the project location as High Risk for archaeological resources, documented Native American use of the general area, and the results of geotechnical investigations (see also Section B.1.c), SPS has determined that a preconstruction survey of the site is warranted. The exact location, extent and method of the survey will be determined during final design, once the location of stormwater facilities and the anticipated locations and depths of construction ground disturbance are finalized (see also Section B.3.c.1). The results of the survey will determine further measures to be taken, including preparation of an inadvertent discovery plan (IDP) and/or archaeological resources monitoring plan.
At a minimum, SPS will prepare an IDP that will be implemented during construction. The IDP will include pre-construction briefings of contractor staff, and on-call response if required. In the event that historic or cultural resources are inadvertently discovered during the project, construction would be temporarily halted in the immediate vicinity of the identified resources and the City, DAHP, and affected tribes would be notified. Mitigation and/or avoidance measures would be negotiated with the City, DAHP, and other stakeholders.

14. Transportation

Existing traffic conditions and potential impacts from the project are described in detail in Appendix C, the Traffic Impact Analysis. Conditions and impacts are summarized here.

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

Roadway Network

Pinehurst Way NE, a four-lane Principal Arterial, connects Roosevelt Way NE to the south and NE 124th Street to the north (Figure 2). Near the site, both sides of the street have curbs, gutters, and sidewalks. There is a crosswalk controlled by a pedestrian actuated signal on the northeast leg of its intersection with NE 115th Street at 12th Avenue NE.

12th Avenue NE is a two-lane, north-south local access street. Near the school, there are grass/gravel shoulders on both sides of the street. Its intersection with NE 117th Street is controlled with a traffic circle; its approach to NE 115th Street is stop-sign controlled.

NE 117th Street is a two-lane, east-west local access roadway with gravel shoulders. As mentioned above, its approaches to 12th Avenue NE are controlled with a traffic circle. Its approaches to Pinehurst Way NE and 15th Avenue NE are stop-sign controlled. Near the school, a school-zone speed limit of 20 mph is in effect when children are present.

15th Avenue NE is a north-south roadway that is designated as a Principal Arterial between NE 145th Street and Pinehurst Way NE. It has four lanes with curbs, gutters, and sidewalks on both sides. South of Pinehurst Way NE, 15th Avenue NE is designated as a Collector Arterial and has two lanes. On the west side of this street segment, there are paved shoulders for parking. The east side has variable shoulder conditions. The northbound approach to Pinehurst Way NE is stop-sign controlled.

NE 115th Street is a two-lane, east-west local access roadway that connects from 3rd Avenue NE to Sandpoint Way NE. In the site vicinity, between Roosevelt Way NE and 12th Avenue NE, the road has intermittent grass/gravel shoulders that are used for parking. Its approach to Pinehurst Way NE is controlled with a stop sign. There is no curb on the south side between 12th Avenue NE and 15th Avenue NE.
The proposed new school would have nine (9) on-site parking spaces in two small parking lots. One would be located on the north side of the school with an access driveway on NE 117th Street; the other would be located toward the south end of the site with an access driveway on 12th Avenue NE. School bus load/unload zones are expected to be retained along the site frontage of 12th Avenue NE. A parent-vehicle load/unload zone is expected to be established along the south side of NE 117th Street.

**Existing Conditions**

To evaluate the potential traffic conditions near the site of the new school, new peak period turning movement traffic counts were performed at the identified study-area intersections. Primary access routes to and from the proposed school by staff, parent vehicles, and school buses are expected to include these intersections.

To capture the existing traffic conditions during these hours, peak period traffic counts were performed from 7:30 to 9:30 A.M. and from 2:30 to 4:30 P.M. on Tuesday, October 29, 2013. During these periods, the highest existing hourly volumes in the morning mostly occurred from 8:15 to 9:15 A.M.; in the afternoon the highest hourly volumes occurred beginning at either 3:15 or 3:30 P.M. To reflect worst-case conditions, the peak hour traffic for each intersection was used as the basis for analysis and the volumes were balanced to the higher volumes along Pinehurst Way NE. The start and dismissal time of the new school has not yet been determined; therefore, it was assumed to overlap with the existing peak hours during these periods. The results of the traffic counts are detailed in Appendix C.

Traffic operations analyses were performed for the study-area intersections. Traffic operations are evaluated using level of service (LOS) with six letter designations, “A” through “F.” 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 level of service definitions and thresholds are provided in Appendix C. LOS D or better is acceptable to the City of Seattle.

The analysis indicates that all the intersections currently operate at LOS A overall and all individual movements operate at LOS C or better during both the morning and afternoon peak hours. The assumed growth in background traffic would add small amounts of delay to some movements by 2016; however, all levels of services are projected to remain the same as existing conditions during both peak hours.

**b. Is the site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?**

King County Metro Transit provides bus service adjacent to the project site. The closest bus stops are located on Pinehurst Way NE at NE 115th Street. Stops serving both directions of travel are located on the north side
of the signalized pedestrian crosswalk. These stops are served by Metro Routes 347 and 348 with all-day service seven days per week between the Northgate Transit Center, Richmond Beach, and Mountlake Terrace. There are also stops located about 660 feet north of the site on 15th Avenue NE at NE 120th Street. These stops are served by Routes 347 and 348, as well as Routes 73, 77, and 373. Route 73 provides all-day service seven days per week. Routes 77 and 373 provide weekday peak-direction, peak-period service.

Students attending an Option K-8 School whose transportation service address is within the boundaries of their service area or linked service area and outside of the designated walk boundaries are eligible for transportation. District-arranged transportation is provided for those students attending a K-8 Option School in their service area or linked service area. ORCA cards, for King County Metro transit service, may be provided for 6th through 8th grade students who live within the boundaries of Seattle Public School District choosing a school outside of their service area. Any student riders typically use service outside of the traditional commuter peak times.

c. **How many parking spaces would the completed project have?**

**How many would the project eliminate?**

**On-site Parking**

The proposed project would construct a small parking lot (4 spaces) on the southwest side of the new building with an access driveway about 215 feet south of NE 117th Street (about the same location as the existing service/load access driveway). The new service/load area would also provide some staff parking (5 spaces) and would be accessed from a new driveway on NE 117th Street (about 160 feet east of 12th Avenue NE). The project would eliminate the existing parking lot located southwest of the existing school and the paved parking area on the east side of the building along with the associated driveways on 12th Avenue NE and NE Pinehurst Way.

There are three areas that are currently used for parking on site with a total capacity of about 33 vehicles. The small south parking lot has 13 spaces; the load/service area has room for about 3 vehicles; and the paved area on the east side of the building is not striped, but has room for about 17 vehicles. The proposed project would therefore eliminate about 24 on-site parking spaces.

**On-street Parking**

The frontage improvements proposed along the south side of NE 117th Street and the east side of 12th Avenue NE would alter the way those areas are used for parking. Currently, the gravel shoulder along the south side of NE 117th Street is used for angle parking. When this area is reconfigured to provide curb, gutter, sidewalk, planters, parallel parking, and a new
access driveway, the parking supply would be reduced by an estimated 17 spaces (reduced from 37 angle spaces to 20 parallel spaces). Along 12th Avenue NE, the elimination of one of the site access driveways would result in one additional parallel parking space. In total, the project would result in a net reduction of 16 on-street parking spaces.

A detailed on-street parking study was performed per the methodology outlined in the City of Seattle’s DPD Tip #117. This analysis was completed to determine the existing parking supply and how much of that supply is currently utilized at different times of the day. The study area for the on-street parking utilization analysis included all roadways within an 800-foot walking distance from the school site corners. The results of the parking study are shown in Table 1.

Table 1  Parking Demand Survey Results

<table>
<thead>
<tr>
<th>Time Period Surveyed</th>
<th>Parking Supply</th>
<th>Total Vehicles Parked</th>
<th>% Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Weekday Mid-Morning (11:00 A.M. to 12:00 P.M.)</td>
<td>435</td>
<td>141</td>
<td>32%</td>
</tr>
<tr>
<td>Average Weekday Evening (7:30 to 8:30 P.M.)</td>
<td>435</td>
<td>147</td>
<td>34%</td>
</tr>
<tr>
<td>Average Weekend Days – Mid-Day (11:00 A.M. to 12:30 P.M.)</td>
<td>435</td>
<td>137</td>
<td>31%</td>
</tr>
</tbody>
</table>


As shown, on-street parking in the study area during midday on weekdays was observed to be 32% utilized (an average of 141 vehicles parked in 435 spaces). In the evening, the utilization averaged 34% (147 vehicles parked in 435 spaces); on the weekend days the utilization averaged 31% (137 vehicles parked in 435 spaces). Utilization of parking on the school’s side (northwest) of Pinehurst Way NE had utilization of about 28% midday, 22% in the evenings, and 20% on weekend days. Utilization rates on roadways to the east and south side of Pinehurst Way NE were about 37% on weekdays, 47% in the evenings, and 44% on weekend days.

The proposed project would result in three changes that would affect study area parking conditions. First, as mentioned previously, frontage improvements along NE 117th Street would convert angle parking to parallel parking resulting in a reduction of about 17 spaces. Second, it would likely implement new peak period parking restrictions to accommodate and parent-vehicle load/unload activities. These two actions would displace parking demand that now occurs on the south side of NE 117th Street to other on-street parking locations. Finally, the project would
increase staffing levels at the site with the higher enrollment level and would generate more parking demand that would spill onto nearby streets.

**School Parking Demand**

Parking demand estimates for the new school were developed based on the existing and anticipated staffing levels at the school, and based on parking demand counts performed at the existing Jane Addams School in October 2013. The existing school has 72 staff. Parking demand at the school during mid-morning was found to average 68 vehicles on two days. This demand level, which includes staff, parents, and other visitors equates to a rate of 0.94 vehicles per employee and is in the range expected for schools located in an urban environment. Based on this rate, the proposed new school, with up to 75 employees could generate midday parking demand of about 71 vehicles when the school is relocated to the Pinehurst site. A small portion of the midday parking demand (9 vehicles) could be accommodated within the on-site parking lots; the remaining demand (about 62 vehicles) is expected to use on-street parking near the site.

The existing program at Pinehurst has about 25 employees. Using this same rate, the existing school generates a demand of about 24 vehicles, including staff, parents and visitors. Most of the parking demand generated by these employees is accommodated on-site with some overspill to the south side of NE 117th Street (estimated at 8 to 10 vehicles).

With the new school, on-street parking is expected to increase by 54 vehicles. It is noted that due to the proximity of transit service at the Pinehurst site, staff may be better able to rely on bus service than at their current site.

As described previously, the adjacent and nearby on-street parking within 800 feet of the site and north and west of Pinehurst Way NE was found to be about 28% utilized with about 165 spaces available. The total on-street supply is expected to be reduced during peak periods by about 17 spaces due to load/unload zone restrictions. With the reduction in supply, and the new overspill demand generated by the proposed project (54 vehicles), the on-street parking utilization near the school site is expected to increase to about 56% midday on school days. This increase can be accommodated within the site area, but would be noticeable to neighbors; especially those located close the school. With the project, block faces nearest the school could have demand that is at or near capacity, while roadways further from the site may not experience any increases in demand.

---

1 Hazel Wolf K-8 (formerly Jane Addams K-8) Staff listing.  
http://addamsk8.seattleschools.org/modules/ct/staffList/staffListSimplified.phtml?sessionid=2e5269893638dcd7917534f4e3574892
Event Parking

With the larger enrollment capacity at the new school, attendance at large school events would also increase. Some of the event-related demand (about 47 vehicles) could be accommodated on-site and along the site frontage in the parallel parking on NE 117th Street and 12th Avenue NE, with the remainder on-street near the school. Based on the on-street parking utilization analysis presented previously, there was an average of about 180 on-street spaces available within the study area north and west of Pinehurst Way NE in the evenings when events could occur. However, the frontage improvements along NE 117th Street would reduce the available capacity to about 163 spaces during evenings. Large events that attract 500 attendees or more to the site at one time would likely cause the on-street parking utilization within 800 feet of the school and north and west of Pinehurst Way to exceed 85%, which is generally considered full by the City of Seattle.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe.

Frontage improvements are proposed along NE 117th Street and 12th Avenue NE that would consist of new curb and gutter, planters, and a sidewalk. Parallel, on-street parking is proposed along the south side of NE 117th Street and 12th Avenue NE adjacent to the school. Curb bulbs are proposed at the corners of 12th Avenue NE and NE 117th Street. No changes to the frontage along Pinehurst Way NE are proposed.

Similar to existing conditions, the frontage of the school along the east side of 12th Avenue NE is expected to be designated for school-bus load/unload only during morning arrival and afternoon dismissal. The parallel parking along the south side of NE 117th Street is expected to be designated for parent-vehicle load/unload during the same periods. The frontage along the west side of Pinehurst Way NE could continue to be signed for peak period school-bus load/unload. The exact times and locations of the restrictions would be determined once the school and transportation schedules have been determined. No other changes to the roadway network are proposed as part of the project.

e. Will the project 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, rail, or air transportation.
f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Construction Traffic

Construction for the proposed project is scheduled to begin in July 2014 and last for approximately 26 months, with completion in August 2016. Overall the site will require removal of about 14,100 cu yd of earth and import of about 4,000 cu yd of fill. It is assumed that all cut material will be exported from the site and all fill material will be imported to the site from an approved source. Assuming an average of 10-cubic yards per truck, the excavation and fill would generate about 1,810 truckloads (1,810 trucks in and 1,810 trucks out). The export and import would likely require a total of about 30 weeks that would be spread out over the course of the project. When earthwork does occur, it would likely result in about 60 truckloads per week and about 12 truckloads per day. This would correspond to about three or four truck trips per hour on a typical eight-hour construction work day. This volume of truck traffic would be noticeable to nearby residents, but is not expected to result in significant impacts to traffic operations in the site vicinity.

The construction of the project would also generate employee and equipment trips to and from the site. It is anticipated that construction workers would arrive at the construction site before the AM peak traffic period on local area streets and depart the site prior to the PM peak period. The number of workers at the project site at any one time would vary depending upon the construction element being implemented. Some parking for construction personnel would be provided within the site, but some construction workers could park along the site frontage.

Long-term Traffic

The proposed project would generate new vehicular, pedestrian, and bicycle activity on the surrounding transportation network. The new school is expected to have an enrollment capacity of 680 students. The existing program at Pinehurst had an enrollment of about 190 students at the time of this analysis (it has had enrollment as high as 275 students in the past ten years). With the enrollment increase from 190 students to the proposed capacity of 680 students, the school is expected to generate an increase in daily and peak hour traffic compared to existing conditions.

Trip generation rates, as published in the Institute of Transportation Engineers’ Trip Generation Manual, were applied to the enrollment levels of the existing and proposed new K-8 schools at the Pinehurst site to determine the potential net change in traffic. These estimates include trips that would be made by staff, parents, and school buses and are higher than would be found for typical public elementary or middle schools, but lower than would be found for a private K-8 school. Based on existing school bus activity, it was assumed that the new school would be served by up to
eight full-sized buses and four or five of the smaller Special Education [SPED] and/or Special Needs buses. Table 2 presents the estimated net change in morning and afternoon peak hour trips at the site with removal of the existing school and construction of the new school.

Table 2  Trip Generation Estimates

<table>
<thead>
<tr>
<th>Site Condition</th>
<th>Enrollment</th>
<th>Morning Peak Hour (8:15 to 9:15 A.M.)</th>
<th>Afternoon Peak Hour (3:15 to 4:15 P.M.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed new K-8 school at Pinehurst</td>
<td>680 students*</td>
<td>490</td>
<td>310</td>
</tr>
<tr>
<td>Existing Alternative School at Pinehurst</td>
<td>-190 students**</td>
<td>-135</td>
<td>-85</td>
</tr>
<tr>
<td><strong>Net Change</strong></td>
<td><strong>460 students</strong></td>
<td><strong>355</strong></td>
<td><strong>225</strong></td>
</tr>
</tbody>
</table>

* Planned enrollment capacity for new school.
** Enrollment of the existing school at the time of analysis (2013).

The net change in school traffic presented in Table 2 for the proposed new K-8 school at Pinehurst was assigned to the local roadway network and added to the 2016 without-project traffic forecasts. The distribution patterns for morning and afternoon peak hour trips were estimated based on the potential locations of parent-vehicle loading/unloading activities, the location of the proposed bus load/unload zones, the locations of parking (on-site and on-street), and the existing traffic patterns at the site. Most of the morning and afternoon peak hour trips are expected to consist of parent vehicles (for student drop off and pick up) and school buses. Some trips also would likely be generated by teachers or staff.

Levels of service for the off-site study area intersections were calculated using the 2016-with-project traffic volumes. The additional traffic that would be generated by the new school at Pinehurst would add some delay to several of the study area intersections and turning movements during both the morning and afternoon peak hours. However, all intersections would continue to operate at LOS A overall and all movements would operate at LOS C or better during both periods.

The site’s limited amount of on-site parking and loading/unloading space for parent-vehicles would contribute to morning and afternoon peak hour congestion. In the future with the proposed new school and higher enrollment level, traffic congestion is expected to be more prevalent during the afternoon peak hour than the morning peak hour. Traffic volumes would continue to be higher during the morning conditions since parents and school buses typically drop off students and then leave the site area during this time. In the afternoon, parents and school buses typically park and wait for dismissal. With the increased enrollment, there would not be adequate on-site or on-street space immediately adjacent to the site.
for the volume of parent-vehicles that will likely wait for students after school. As a result, parents will likely continue to be parked in many areas near the site including along NE 117th Street and 12th Avenue NE north and west of the site where students would walk to these parked vehicles.

g. **Describe proposed measures to reduce or control transportation impacts, if any.**

The following mitigation would reduce the traffic and parking impacts identified above:

- Develop an access management plan to address congestion, pedestrian crossings, access patterns, and vehicle load/unload zones.
- Work with the Seattle Department of Transportation (SDOT) to confirm the locations, signage and restrictions of parent-vehicle and bus load/unload zones.
- Engage the Seattle School Safety Committee (of which SDOT is a member) to review walk routes and determine if any changes should be made to crosswalk locations, signage, pavement markings, school zone speed limits, or crossing guard locations.
- Coordinate with SDOT and the Seattle Police Department to implement and enforce school-zone speed limits near the site.
- Identify potential walk routes and coordinate with the City to identify potential improvements that could be funded through the City’s School Road Safety Initiative or other grand programs.
- Develop a neighborhood communication plan to inform nearby neighbors of events each year to allow neighbors to plan for the occasional increase in on-street parking demand that would occur with large events.
- Develop transportation and parking management plans for both weekday arrival and dismissal activities as well as large events to minimize the associated traffic and parking impacts.
- Consider altering events that are expected to draw more than 500 attendees to reduce the attendance (such as by splitting the events) or relocating the events to an alternative location that has parking capacity to accommodate the demand.
- Require the selected contractor to develop a construction management plan (CMP) that addresses traffic and pedestrian control during school construction.
15. Public Services
   a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally explain.

   The project would not change the uses of the site from a public education facility. The proposed project would add attendance to the facility, but is not anticipated to require additional public services above that already anticipated without the project. The proposed project would not result in an increased need for public services.

   b. Describe proposed measures to reduce or control direct impacts on public services.

   Since an increased need for public services is not required; mitigation to reduce impacts to public services is not proposed.

16. Utilities
   a. Underline utilities currently available at the site:

   Electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic systems, other

   In addition to those utilities indicated above, cable and internet services are also 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 project will require electrical service from Seattle City Light, water and sewer service from Seattle Public Utilities, natural gas from Puget Sound Energy, and communication lines from a service provider that has not yet been determined.

   The contractor would coordinate with utility purveyors to address all existing utilities prior to proceeding with construction activity. Any active underground pipes encountered would be protected. Should undocumented piping or other utilities be encountered, the utility purveyor would be immediately contacted prior to resuming construction activity near the utility. Storm drains would be maintained and protected as catch basins.
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.

Signature: [Signature]

Name (print): [Michael C. Skulack]

Title: [SPS Sr. Project Manager Capital]

Date Submitted: [6/11/2014]
REFERENCES


FIGURES
Figure 2
Site Plan
Seattle, Washington
Appendix A

Construction Best Management Practices
CONSTRUCTION BEST MANAGEMENT PRACTICES

The contractor will be required to implement the following measures to ensure minimal environmental impacts throughout the construction duration:

- The contractor will submit a written earthwork plan to the Project Engineer for approval prior to 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 measures used to protected 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 Land Use 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 BMP requirements during the one-year 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 stabilization practices upon 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 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.

• Firelanes and roadways to existing buildings will be maintained, 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

Tree Inventory and Arborist Report
TO: Matt Rumbaugh, NAC Architecture
SITE: Pinehurst School
RE: Tree Inventory and Arborist Report
DATE: December 9, 2013
PREPARED BY: Sean Dugan, Registered Consulting Arborist # 457
ISA Board Certified Master Arborist #PN-5459B
ISA Qualified Tree Risk Assessor

Contents
Summary
Assignment & Scope of Report
Methods
Observations
Discussion
Recommendations
Glossary
References
Appendix A - Assumptions & Limiting Conditions
Appendix B - Tree Risk Assessor Method
Appendix C – Marked-up Site Survey
Attachments:
  Table of Trees

Summary
Twenty-seven trees were inventoried. All of the trees are in either fair or good health and structural condition. All of the trees present a low risk rating to the surrounding targets. Seventeen (17) trees are proposed for retention and ten (10) trees are proposed for removal.

Four trees meet the definition of Exceptional as stated in the city of Seattle’s Director’s Rule 16-2008. All of the trees are proposed for retention except for tree 229, which will be located in an area that will require grading and the removal of structural support roots. The tree has a significant density of Pine Rust Galls in the canopy causing sections to dieback. The tree is unlikely to survive following the proposed construction.

The remaining trees proposed for preservation should not be negatively impacted provided basic tree protection measures are implemented. Tree 226 is located in raised mound with boulders. The boulders will need to be preserved in order to assure the tree remains stable.
Assignment & Scope of Report

This report outlines the site inspection by Sean Dugan of Tree Solutions Inc, on November 14, 2013. I was asked to review documents in preparation for the completion of a tree inventory and arborist report. I was asked to visit the job site and collect data required by the city of Seattle including diameter at standard height, species, drip line radius, health and structural condition, Exceptional status, proposed action, and notes. I was asked to mark-up a site survey that identifies the tree locations. I was asked to provide a formal report including findings, discussion, and management recommendations. I was asked by Matt Rumbaugh, with NAC Architecture and representing the owner of the property, requested these services for project planning purposes.

Limits of Assignment

Unless stated otherwise: 1) information contained in this report covers only those trees that were examined and reflects the condition of those trees at the time of inspection; and 2) the inspection is limited to visual examination of the subject trees without dissection, excavation, probing, climbing, or coring unless explicitly specified. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future.

The International Society of Arboriculture defines “Hazard Tree” as “a tree that has been assessed as having characteristics that make it an unacceptable risk for continued retention. A hazard tree, or a hazardous component, exist when the sum of the risk factors equals or exceeds a predetermined threshold of risk.” The predetermined threshold for risk and the actions required to reduce the risk below that threshold is established by the risk manager.

As a Qualified Tree Risk Assessor, my job is to provide the risk manager, in this case the property owner, with technical information required to make informed decisions. The risk manager must make the decision about how to implement the actions required to reduce risk levels to acceptable levels.

Tree Solutions did not review any reports or perform any tests related to the soil located on the subject property unless outlined in the scope of services. Tree Solutions staff are not and do not claim to be soils experts. An independent inventory and evaluation of the site’s soil should be obtained by a qualified professional as determined to be needed by the property manager if an additional understanding of the site’s characteristics is needed to make an informed decision.

Additional assumptions and limiting conditions can be found in Appendix A.

Methods

I evaluated tree health and structure utilizing visual tree assessment (VTA) methods. The basis behind VTA is the identification of symptoms, which the tree produces in reaction to a weak spot or area of mechanical stress. A tree reacts to mechanical and physiological stresses by growing more vigorously to re-enforce weak areas, while depriving less stressed parts. (Mattheck & Breloer 1994) An understanding of the uniform stress allows me to make informed judgments about the condition of a tree.
Using the International Society of Arboriculture (ISA) Tree Risk Assessment Qualification method, I assigned a risk rating to the tree. I performed a Level 2 risk assessment of all trees as outlined in the Best Management Practices companion publication to the American National Standards Institute (ANSI) A300 Part 9: Tree Shrub and Other Woody Plant Management – Standards and Practices, Tree Risk Assessment. This approach provides assessors a structured process, based on good science and arboriculture, to assign recommended thresholds for action for the purpose of informing risk managers. Additional information regarding this method can be found in Appendix B.

The likelihood of whole tree or part failure is based on what is visible during the time of the assessment and what would likely occur under normal weather conditions, over a oneyear time period.

The diameter of each tree was measured at 54 inches above grade, diameter at standard height (DSH). Multiple trunk trees had the single stem equivalent calculated as described in the Seattle Director’s Rule 16-2008.

An oval metal tag was attached to each tree approximately four to five feet above grade. The tag series runs from 215 thru 240. The tag number, species, health and structural condition, risk potential rating, notes, and recommendations for each tree can be found in the attached Table of Trees. A Marked-up Site Survey with tree locations can be found in Appendix C.

Observations and Discussion

The Site and History

The Pinehurst School site is currently developed but is being proposed for redevelopment. The greatest number of trees are located on the west side of the site with the highest density near the south and north portions.

The Trees

Twenty-seven (27) significant size trees were assessed. Tree species include Deodar cedar (Cedrus deodara), Eastern dogwood (Cornus florida), Sawara cypress (Chamaecyparis pisifera), European birch (Betula pendula), White cedar (Thuja occidentalis), Shore pine (Pinus contorta var. contorta), hybrid Giant Mugo pine (Pinus mugo ssp.), Fullmoon maple (Acer japonicum), Ponderosa pine (Pinus ponderosa), Colorado spruce (Picea pungens), Red oak (Quercus rubra), Autumn Glory Hawthorn (Cretaegus ‘ Autumn Glory’), Sweet gum (Liquidambar styraciflua) trees. Information specific to each tree can be found in the attached Table of Trees.

All of the trees are in either fair or good health and structural condition. All of the trees present a low risk rating to the surrounding targets. Seventeen (17) trees are proposed for retention and ten (10) trees are proposed for removal.

Exceptional Trees

Trees 215, 216, 223, and 229 meet the definition of Exceptional as stated in the city of Seattle’s Director’s Rule 16-2008. Except for tree 229, all of the trees are proposed for retention. Tree 229 is located in a proposed transition zone from higher to lower elevations where a play area will be installed. If the grading occurs in the transition zone a significant number of structural roots will likely be severed.
The removal of these roots will make the likelihood of failure probable; the likelihood of impacting a target is medium; making the combination of the two somewhat likely to negatively affect a target. The consequence of the failure would be significant or severe. The risk rating after the loss of structural roots would be Medium. The likelihood of the tree surviving after root lose would be low.

Tree 229 has a significant health issue. The tree has numerous galls that have developed from Pine Gall Rust. Sections of the canopy where the galls are the greatest are in decline. (see Photographs 1a and 1b) The most common recommended approach to control the Pine Gall Rust is to cut the galls out of the trees. Unfortunately, due to the high density of the galls in the tree it would require a significant portion of the canopy to be removed. Regardless if the tree is preserved or not, in my opinion, this tree is likely to have a short useful life expectancy.

Photograph 1a (top) and 1b(bottom) showing sections of canopy dying back due to Pine Gall Rust.
Significant Trees

In general, the remaining trees proposed for preservation should not be negatively impacted provided basic tree protection measures are implemented. Any grading or activities within the drip line of the trees should be planned to be performed with hand equipment and a certified arborist should be on site during these operations.

All of the trees proposed for retention are suitable to retain, however, tree 222 a thread leaf cypress, has a sparse canopy and may be in a state of decline, additional monitoring would be needed to make this determination. If any disturbance occurs in the root system of the tree it is likely to have a short useful life expectancy and will decline.

Tree 226 is a Colorado spruce tree that is located in a raised mound (see Photograph 2). This tree is proposed for retention. This tree currently has some insect issues that will need to be treated for to assure the tree maintains good vigor and a healthy canopy. The removal of the infrastructure around the tree will need to proceed with caution to be sure the root system does not get damaged. There is evidence of mechanical damage on some of the surface roots.

In my opinion, the large boulders will need to remain. The tree has adapted to the site and has come to rely on the adjacent boulders for support. Removal of the boulders could have a negative impact tree stability.

Photograph 2. View looking to the west at tree 226.
Recommendations

- Obtain all necessary permits needed for the removal of trees prior to the commencement of site work.
- Apply tree protection measures around all trees to be preserved.
- Retain boulders around tree 226 and treat with a systemic insecticide such as Acephate to control insects.
- Have a certified arborist observed and recommend tree protection measures during the construction phase of activities near trees.

Glossary

**acceptable risk:** the degree or amount of risk that the owner, manager, or controlling authority is willing to accept (ISA 2013)

**acceptable threshold:** the highest level of risk that does not exceed the owner/manager’s tolerance (ISA 2013)

**advanced assessment:** an assessment performed to provide detailed information about specific tree parts, defects, targets, or site conditions. Specialized equipment, data collection and analysis, and/or expertise are usually required (ISA 2013)

**ANSI A300:** American National Standards Institute (ANSI) standards for tree care

**basic assessment:** detailed visual inspection of a tree and surrounding site that may include the use of simple tools. It requires that a tree risk assessor walk completely around the tree trunk looking at the site, aboveground roots, trunk, and branches (ISA 2013)

**consequences:** outcome of an event (ISA 2013)

**consequences of failure:** personal injury, property damage, or disruption of activities due to the failure of a tree or tree part (ISA 2013)

**DBH or DSH:** diameter at breast or standard height; the diameter of the trunk measured 54 inches (4.5 feet) above grade (Matheny et al. 1998)

**drive-by (assessment):** limited visual inspection from only one side of the tree, performed from a slow-moving vehicle; also may be called a windshield assessment (ISA 2013)

**ISA:** International Society of Arboriculture

**included bark:** bark that becomes embedded in a crotch between branch and trunk or between codominant stems and causes a weak structure (Lilly 2001)

**level(s) of assessment:** categorization of the breadth and depth of analysis used in an assessment (ISA 2013)

**likelihood:** the chance of an event occurring. In the context of tree failures, the term may be used to specify: (1) the chance of a tree failure occurring; (2) the chance of impacting a specified target; and (3) the combination of the likelihood of a tree failing and the likelihood of impacting a specified target (ISA 2013)

**likelihood of failure:** the chance of a tree failure occurring within the specified time frame (ISA 2013)

**likelihood of failure and impact:** the chance of a tree failure occurring and impacting a target within the specified time frame (ISA 2013)

**likelihood of impact:** the chance of a tree failure impacting a target during the specified time frame (ISA 2013)
likely (likelihood of failure and impact): defined by its placement in the likelihood matrix (see Matrix 1 on page 2 of the Tree Risk Assessment form); imminent likelihood of failure and medium likelihood of impact, or probable likelihood of failure and high likelihood of impact (ISA 2013)

mitigation options: alternatives for reducing risk (ISA 2013)

mitigation priority: established hierarchy for mitigation of risks based on risk ratings, budget, resources, and policies (ISA 2013)

monitoring: keeping a close watch; performing regular checks or inspections (Lilly 2001)

owner/manager: the person or entity responsible for tree management or the controlling authority that regulates tree management (ISA 2013)

risk rating: the level of risk combining the likelihood of a tree failing and impacting a specified target, and severity of the associated consequences (ISA 2013)

risk tolerance: degree of risk that is acceptable to the owner, manager, or controlling authority (ISA 2013)

significant size: a tree measuring 6” DSH or greater

target: person, object, or structure that could be injured or damaged in the event of tree or branch failure (Lilly 2001)

tree risk assessment: a systematic process used to identify, analyze, and evaluate tree risk (ISA 2013)

Tree Risk Evaluation: the process of comparing the assessed risk against given risk criteria to determine the significance of the risk (ISA 2013)

tree risk management: the application of policies, procedures, and practices used to identify, evaluate, mitigate, monitor, and communicate tree risk (ISA 2013)

Visual Tree Assessment (VTA): method of evaluating structural defects and stability in trees by noting the pattern of growth. Developed by Claus Mattheck (Harris, et al 1999)

References


Appendix A - Assumptions & Limiting Conditions

1. Consultant assumes that any legal description provided to Consultant is correct and that title to property is good and marketable. Consultant assumes no responsibility for legal matters. Consultant assumes all property appraised or evaluated is free and clear, and is under responsible ownership and competent management.

2. Consultant assumes that the property and its use do not violate applicable codes, ordinances, statutes or regulations.

3. Although Consultant has taken care to obtain all information from reliable sources and to verify the data insofar as possible, Consultant does not guarantee and is not responsible for the accuracy of information provided by others.

4. Client may not require Consultant to testify or attend court by reason of any report unless mutually satisfactory contractual arrangements are made, including payment of an additional fee for such Services as described in the Consulting Arborist Agreement.

5. Unless otherwise required by law, possession of this report does not imply right of publication or use for any purpose by any person other than the person to whom it is addressed, without the prior express written consent of the Consultant.

6. Unless otherwise required by law, no part of this report shall be conveyed by any person, including the Client, the public through advertising, public relations, news, sales or other media without the Consultant’s prior express written consent.

7. This report and any values expressed herein represent the opinion of the Consultant, and the Consultant’s fee is in no way contingent upon the reporting of a specific value, a stipulated result, the occurrence of a subsequent event or upon any finding to be reported.

8. Sketches, drawings and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys. The reproduction of any information generated by architects, engineers or other consultants and any sketches, drawings or photographs is for the express purpose of coordination and ease of reference only. Inclusion of such information on any drawings or other documents does not constitute a representation by Consultant as to the sufficiency or accuracy of the information.

9. Unless otherwise agreed, (1) information contained in this report covers only the items examined and reflects the condition of those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, climbing, or coring. Consultant makes no warranty or guarantee, express or implied, that the problems or deficiencies of the plans or property in question may not arise in the future.

10. Loss or alteration of any part of this Agreement invalidates the entire report.
Appendix B - Qualified Tree Risk Assessment

Levels of Risk Assessment

Level 2 risk assessment – basic
Level 2 assessments shall include a 360-degree, ground-based visual inspection of the tree crown, trunk, above-ground roots, and site conditions around the tree. Use of hand tools, trowels, binoculars, or probes, shall not be precluded from a Level 2 assessment. A mallet or other tool should be used to sound the trunk, root collar and above ground buttress roots in order to detect large hollows and loose bark. Level 2 shall provide a detailed visual inspection of a tree(s) to detect the conditions specified and tree defects in relation to surrounding targets.

A basic assessment should include the identification of conditions indicating the presence of structural defects including, but not limited to:

- Dead, diseased, broken branches, stems, and roots; Weakly attached branches and codominant stems; Mechanical damage and cracks into the wood;
- Abnormal growth such as swelling, ribs, flat areas, or seams; Indications of decay and cankers;
- Root plate lifting, abnormal trunk flare, lack of trunk flare, soil cracks, grade change, restricted or undermined roots;
- Unusual tree architecture including lean, low live crown ratio, poor taper, and crown asymmetry.

Level 2 inspections should be considered annually; more frequently if species, tree size, tree condition or other factors indicate a need for a more frequent interval. Scheduling inspections shall be the responsibility of the tree owner. Monitoring and follow-up recommendations should be made based on the outcome of the assessment and the objectives.

Likelihood of Failure

Improbable: the tree or branch is not likely to fail during normal weather conditions and may not fail in many severe weather conditions within the specified time frame.

Possible: failure could occur, but it is unlikely during normal weather conditions within the specified time frame.

Probable: failure may be expected under normal weather conditions within the specified time frame.

Imminent: failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load. This is a rare occurrence for a risk assessor to encounter, and it may require immediate action to protect people from harm.
**Likelihood of Impacting a Target**

**Very Low:** the chance of the failed tree or branch impacting the specified target is remote. This is the case in a rarely used site fully exposed to the assessed tree or an occasionally used site that is partially protected by trees or structures. Examples included a rarely used trail or trail head in a rural area, or an occasionally used area that has some protection against being struck by the tree failure due to the presence of other trees between the tree being assessed and the targets.

**Low:** it is not likely that the failed tree or branch will impact the target. This is the case in an occasionally used area that is fully exposed to the assessed tree, a frequently used area that is partially exposed to the assessed tree, or a constant target that is well protected from the assessed tree. Examples include a little-used service road next to the assessed tree or a frequently used public street that has a street tree between the street and the assessed tree.

**Medium:** the failed tree or branch may not impact the target, with nearly equal likelihood. This is the case in a frequently used area that is fully exposed on one side to the assessed tree or a constantly occupied area that is partially protected from the assessed tree. Examples include a suburban street next to the assessed street tree or a house that is partially protected from the assessed tree by an intermediate tree.

**High:** the failed tree or branch will most likely impact the target. This is the case when a fixed target is fully exposed to the assessed tree or near a high-use road or walkway with an adjacent street tree.

<table>
<thead>
<tr>
<th>Likelihood of Failure (Tree)</th>
<th>Very Low</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imminent</strong></td>
<td>Unlikely</td>
<td>Somewhat likely</td>
<td>Likely</td>
<td>Very likely</td>
</tr>
<tr>
<td><strong>Probable</strong></td>
<td>Unlikely</td>
<td>Unlikely</td>
<td>Somewhat likely</td>
<td>Likely</td>
</tr>
<tr>
<td><strong>Possible</strong></td>
<td>Unlikely</td>
<td>Unlikely</td>
<td>Unlikely</td>
<td>Somewhat likely</td>
</tr>
<tr>
<td><strong>Improbable</strong></td>
<td>Unlikely</td>
<td>Unlikely</td>
<td>Unlikely</td>
<td>Unlikely</td>
</tr>
</tbody>
</table>
Consequences of Failure

**Negligible**: consequences are those that involve low-value property damage or disruption that can be replaced or repaired, and do not involve personal injury.

**Minor**: consequences are those that involve low-to-moderate property damage or small disruptions to traffic or a communication utility.

**Significant**: consequences are those that involve property damage of moderate-to-high value, considerable disruption, or personal injury.

**Severe**: consequences are those that could involve serious personal injury or death, damage to high-value property, or disruption of important activities.

<table>
<thead>
<tr>
<th>Likelihood of Failure &amp; Impact</th>
<th>Consequences (to Target)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Negligible</td>
</tr>
<tr>
<td></td>
<td>Minor</td>
</tr>
<tr>
<td></td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
</tr>
<tr>
<td><strong>Very likely</strong></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Extreme</td>
</tr>
<tr>
<td><strong>Likely</strong></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td><strong>Somewhat Likely</strong></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
</tr>
<tr>
<td><strong>Unlikely</strong></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Low</td>
</tr>
</tbody>
</table>

*Risk rating matrix showing the level of risk as the combination of likelihood of a tree failing and impacting a specified target, and severity of the associated consequences.*
Risk Rating Categories and Timing for Mitigation

In the tree risk assessment matrix, four terms are used to define levels of risk; low, moderate, high, and extreme. These risk ratings are used to communicate the level of risk and to assist in making recommendations to the owner or risk manager for mitigation and inspection frequency. The priority for action depends upon the risk rating and risk tolerance of the owner or manager.

**Extreme**—The extreme-risk category applies in situations in which failure is *imminent* and there is a high likelihood of impacting the target, and the consequences of the failure are “severe.” The tree risk assessor should recommend that **mitigation measures be taken as soon as possible**. In some cases this may mean immediate restriction of access to the target zone area to avoid injury to people.

**High**—High-risk situations are those for which consequences are “significant” and likelihood is “very likely” or “likely,” or consequences are “severe” and likelihood is “likely.” This combination of likelihood and consequences indicates that the tree risk assessor should recommend mitigation measures be taken. The decision for mitigation and timing of treatment depends upon the risk tolerance of the tree owner or manager. In populations of trees, the priority of high-risk trees is second only to extreme-risk trees.

**Moderate**—Moderate-risk situations are those for which consequences are “minor” and likelihood is “very likely” or “likely”; or likelihood is “somewhat likely” and consequences are “significant” or “severe.” The tree risk assessor may recommend mitigation and/or retaining and monitoring. The decision for mitigation and timing of treatment depends upon the risk tolerance of the tree owner or manager. In populations of trees, moderate-risk trees represent a lower priority than high- or extreme-risk trees.

**Low**—The low-risk category applies when consequences are “negligible” and likelihood is “unlikely”; or consequences are “minor” and likelihood is “somewhat likely.” Some trees with this level of risk may benefit from mitigation or maintenance measures, but immediate action is not usually required. Tree risk assessors may recommend retaining and monitoring these trees, as well as mitigation that does not include removal of the tree.


Options for Mitigation of Risk Trees

Remove the risk altogether if possible by cutting off one or more branches, removing dead wood, or possibly removing the entire tree. Extreme risk situations should be closed off until the risk is abated.

Modify the risk of failure probability. In some cases it may be possible to reduce the probability of failure by adding mechanical support in the form of cables braces or props.

Modify the risk rating by moving the target. Risk ratings can sometimes be lowered by moving the target so that there is a much lower probability of the defective part striking anything. Moving the target should generally be seen as an interim measure.

Retain and monitor. This approach is used where some defects have been noted but they are not yet serious and the present risk level is only moderate.
Appendix C – Marked-up Site Survey
<table>
<thead>
<tr>
<th>Tree #</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>DSH (inches)</th>
<th>Health Condition</th>
<th>Dripline (ft)</th>
<th>Structural Condition</th>
<th>Risk</th>
<th>Exceptional</th>
<th>Proposed Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>215</td>
<td>Cedrus deodara</td>
<td>Deodar Cedar</td>
<td>31.5</td>
<td>Good</td>
<td>26</td>
<td>Good</td>
<td>Low</td>
<td>Yes</td>
<td>Retain</td>
<td>Crown clean, tip prune back longest scaffolds over road.</td>
</tr>
<tr>
<td>216</td>
<td>Cornus florida</td>
<td>Eastern dogwood</td>
<td>14.9</td>
<td>Good</td>
<td>12</td>
<td>Good</td>
<td>Low</td>
<td>Yes</td>
<td>Retain</td>
<td>Monitor for anthracnose - three trunks 9.5, 8.3, 8</td>
</tr>
<tr>
<td>217</td>
<td>Chamaecyparis pisifera</td>
<td>Sawara cypress</td>
<td>10.3</td>
<td>Fair</td>
<td>3</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Retain</td>
<td>Roots obstructed from parking lot. Roots causing some infrastructure damage.</td>
</tr>
<tr>
<td>218</td>
<td>Chamaecyparis pisifera</td>
<td>Sawara cypress</td>
<td>7</td>
<td>Fair</td>
<td>3</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Retain</td>
<td>Roots obstructed from parking lot. Roots causing some infrastructure damage.</td>
</tr>
<tr>
<td>219</td>
<td>Chamaecyparis pisifera</td>
<td>Sawara cypress</td>
<td>7.1</td>
<td>Fair</td>
<td>3</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Retain</td>
<td>Roots obstructed from parking lot. Roots causing some infrastructure damage. - tw trunks 4.8, 5.2</td>
</tr>
<tr>
<td>220</td>
<td>Chamaecyparis pisifera</td>
<td>Sawara cypress</td>
<td>6.8</td>
<td>Fair</td>
<td>3</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Retain</td>
<td>Roots obstructed from parking lot. Roots causing some infrastructure damage.</td>
</tr>
<tr>
<td>221</td>
<td>Chamaecyparis pisifera</td>
<td>Sawara cypress</td>
<td>7.5</td>
<td>Fair</td>
<td>10</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Retain</td>
<td>Roots obstructed from parking lot. Roots causing some infrastructure damage.</td>
</tr>
<tr>
<td>222</td>
<td>Chamaecyparis pisifera 'Filifera'</td>
<td>Laceleaf cypress</td>
<td>10</td>
<td>Fair</td>
<td>10</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Retain</td>
<td>Sparse canopy- two trunks 7.1, 7</td>
</tr>
<tr>
<td>223</td>
<td>Betula pendula</td>
<td>European Birch</td>
<td>24.7</td>
<td>Good</td>
<td>16</td>
<td>Good</td>
<td>Low</td>
<td>Yes</td>
<td>Retain</td>
<td>two trunks 20.8, 13.3</td>
</tr>
<tr>
<td>224</td>
<td>Thuja occidentalis</td>
<td>White cedar</td>
<td>6.8</td>
<td>Fair</td>
<td>2</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Retain</td>
<td>Up against building - two trunks 5.5, 4</td>
</tr>
<tr>
<td>225</td>
<td>Pinus contorta var. contorta</td>
<td>Shore pine</td>
<td>9.8</td>
<td>Fair</td>
<td>10</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Retain</td>
<td>Roots have poor architecture. Sparse canopy. Red Turpentine beetle attack, signs show as resin staining.</td>
</tr>
<tr>
<td>226</td>
<td>Picea pungens</td>
<td>Colorado spruce</td>
<td>18.5</td>
<td>Fair</td>
<td>8</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Retain</td>
<td>Spider mites, can be treated with acephate. Tree located on mound surrounded by walk way. Roots causing some infrastructure damage. Extensive root obstruction. Mechanical damage to roots seen. Resin streams down trunk.</td>
</tr>
<tr>
<td>227</td>
<td>Pinus mugo ssp</td>
<td>Hybrid Giant Mugo pine</td>
<td>13.9</td>
<td>Good</td>
<td>10</td>
<td>Good</td>
<td>Low</td>
<td>No</td>
<td>Remove</td>
<td>multi trunk - 3.6, 5, 5.3, 5.3, 5.5, 5.7, 6.1</td>
</tr>
<tr>
<td>228</td>
<td>Pinus mugo ssp</td>
<td>Hybrid Giant Mugo pine</td>
<td>11.3</td>
<td>Fair</td>
<td>8</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Remove</td>
<td>two trunks 8, 8</td>
</tr>
<tr>
<td>229</td>
<td>Pinus contorta var. contorta</td>
<td>Shore pine</td>
<td>20.3</td>
<td>Fair</td>
<td>15</td>
<td>Fair</td>
<td>Low</td>
<td>Yes</td>
<td>Remove</td>
<td>Pine Rust Branch Galls. Leads removed. Some sections of canopy have dieback. Mechanical damage seen on scaffold branch. Three trunks - 10.8, 11.8, 12.5</td>
</tr>
<tr>
<td>230</td>
<td>Pinus contorta var. contorta</td>
<td>Shore pine</td>
<td>8.5</td>
<td>Good</td>
<td>12</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Remove</td>
<td>Pine Rust Branch Galls. Leads removed. Some sections of canopy have dieback. Mechanical damage seen on scaffold branch. Three trunks - 10.8, 11.8, 12.5</td>
</tr>
</tbody>
</table>

Date of Inventory: 11/14/2013
Table Prepared: 11/15/2013
Pinehurst School
11530 12th Ave. NE

Tree Solutions, Inc.
1058 N. 39th St. Seattle, WA 98103
Page 1 of 2
www.treesolutions.net
206-528-4670
<table>
<thead>
<tr>
<th>Tree #</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>DSH (inches)</th>
<th>Health Condition</th>
<th>Dripline (ft)</th>
<th>Structural Condition</th>
<th>Risk</th>
<th>Exceptional</th>
<th>Proposed Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>231</td>
<td>Thuja occidentalis</td>
<td>White cedar</td>
<td>9.2</td>
<td>Good</td>
<td>4</td>
<td>4 4 4 4</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Remove. Tree located at corner of building - two trunks 4.5, 8</td>
</tr>
<tr>
<td>232</td>
<td>Acer japonicum</td>
<td>Fullmoon maple</td>
<td>7</td>
<td>Good</td>
<td>10</td>
<td>7 8 8 8</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Remove. Two trunks 4.6, 5.3</td>
</tr>
<tr>
<td>233</td>
<td>Cornus florida</td>
<td>Eastern dogwood</td>
<td>8.6</td>
<td>Fair</td>
<td>8</td>
<td>7 8 7 7</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Remove. Old tear wound on trunk. Decay visibly seen. Two trunks - 6, 6.2</td>
</tr>
<tr>
<td>234</td>
<td>Betula pendula</td>
<td>European Birch</td>
<td>14.9</td>
<td>Good</td>
<td>14</td>
<td>12 15 15</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Retain. Two trunks 9.7, 11.5</td>
</tr>
<tr>
<td>235</td>
<td>Pinus ponderosa</td>
<td>Ponderosa pine</td>
<td>23.0</td>
<td>Good</td>
<td>14</td>
<td>20 18 20</td>
<td>Good</td>
<td>Low</td>
<td>No</td>
<td>Retain. Pitch moth signs seen in multiple areas on trunk. North side has dieback. Medium density of small dead branches.</td>
</tr>
<tr>
<td>236</td>
<td>Picea pungens</td>
<td>Colorado spruce</td>
<td>10.2</td>
<td>Fair</td>
<td>7</td>
<td>7 7 7 7</td>
<td>Good</td>
<td>Low</td>
<td>No</td>
<td>Retain. Insect issues</td>
</tr>
<tr>
<td>237</td>
<td>Quercus rubra</td>
<td>Red oak</td>
<td>19.3</td>
<td>Good</td>
<td>25</td>
<td>25 20 25</td>
<td>Good</td>
<td>Low</td>
<td>No</td>
<td>Retain</td>
</tr>
<tr>
<td>238</td>
<td>Betula pendula</td>
<td>European Birch</td>
<td>20.5</td>
<td>Good</td>
<td>19</td>
<td>23 23 23</td>
<td>Good</td>
<td>Low</td>
<td>No</td>
<td>Retain</td>
</tr>
<tr>
<td>239</td>
<td>Hybrid Crataegus 'Autumn Glory'</td>
<td>Hawthorn</td>
<td>11.4</td>
<td>Fair</td>
<td>8</td>
<td>10 10 10</td>
<td>Fair</td>
<td>Low</td>
<td>No</td>
<td>Remove. Tree exhibiting slow growth. Large fruit present. Tree has narrow angle of attachment. Two trunks 9, 7 inches</td>
</tr>
<tr>
<td>240</td>
<td>Liquidambar styraciflua</td>
<td>Sweet gum</td>
<td>6.0</td>
<td>Good</td>
<td>7</td>
<td>7 7 7 7</td>
<td>Good</td>
<td>Low</td>
<td>No</td>
<td>Remove</td>
</tr>
<tr>
<td>241</td>
<td>Liquidambar styraciflua</td>
<td>Sweet gum</td>
<td>5.5</td>
<td>Good</td>
<td>6</td>
<td>6 6 6 6</td>
<td>Good</td>
<td>Low</td>
<td>No</td>
<td>Remove. Not significant</td>
</tr>
</tbody>
</table>
Appendix C
Traffic Impact Analysis
# TABLE OF CONTENTS

1. INTRODUCTION ........................................................................................................................... 1
   1.1. Project Description........................................................................................................... 1

2. BACKGROUND CONDITIONS .................................................................................................... 5
   2.1. Roadway Network .......................................................................................................... 5
   2.2. Traffic Volumes ............................................................................................................ 7
   2.3. Traffic Operations ........................................................................................................ 12
   2.4. Site Access .................................................................................................................... 13
   2.5. Parking ........................................................................................................................ 14
   2.6. Traffic Safety ............................................................................................................... 17
   2.7. Transit Facilities and Service ....................................................................................... 18
   2.8. Non-Motorized Transportation Facilities ................................................................. 18

3. PROJECT IMPACTS ..................................................................................................................... 19
   3.1. Roadway Network ......................................................................................................... 19
   3.2. Traffic Volumes ........................................................................................................... 19
   3.3. Traffic Operations ....................................................................................................... 26
   3.4. Site Access .................................................................................................................. 27
   3.5. Parking Demand and Supply ...................................................................................... 28
   3.6. Traffic Safety .............................................................................................................. 30
   3.7. Transit .......................................................................................................................... 30
   3.8. Non-Motorized Transportation Facilities ................................................................. 31
   3.9. Short-term Impacts from Construction ....................................................................... 31

4. FINDINGS AND RECOMMENDATIONS .................................................................................. 32

APPENDIX A – LEVEL OF SERVICE DEFINITIONS

APPENDIX B – PARKING UTILIZATION STUDY DATA
LIST OF FIGURES

Figure 1. Site Location and Vicinity ...................................................................................................... 2
Figure 2. Proposed Site Plan .................................................................................................................. 4
Figure 3. Existing (2013) Traffic Volumes – Morning Peak Hour ........................................................ 8
Figure 4. Existing (2013) Traffic Volumes – Afternoon Peak Hour ..................................................... 9
Figure 5. Forecast 2016 Without-Project Traffic Volumes – Morning Peak Hour .............................. 10
Figure 6. Forecast 2016 Without-Project Traffic Volumes – Afternoon Peak Hour ............................. 11
Figure 7. Study Area for On-Street Parking Utilization Surveys ....................................................... 15
Figure 8. Project Net Trip Distribution and Assignment – Morning PM Peak Hour ............................ 22
Figure 9. Project Net Trip Distribution and Assignment – Afternoon Peak Hour ................................. 23
Figure 10. Forecast (2016) With-Project Traffic Volumes – Morning Peak Hour ............................... 24
Figure 11. Forecast (2016) With-Project Traffic Volumes – Afternoon Peak Hour ............................. 25

LIST OF TABLES

Table 1. Level of Service Summary – Existing (2013) and 2016-Without-Project Conditions .......... 13
Table 2. Parking Demand Survey Results – December 2013 ............................................................... 17
Table 3. Collision Summary (January 1, 2010 through December 31, 2013) ...................................... 18
Table 4. Trip Generation Rates for Jane Addams K-8 School at Pinehurst ........................................ 20
Table 5. Jane Addams K-8 School at Pinehurst – Trip Generation Estimates .................................... 21
Table 6. Level of Service Summary – 2016-Without- and With-Project Conditions ....................... 27
1. INTRODUCTION

This report presents the transportation impact analyses for the Seattle Public Schools’ proposed Jane Addams K-8 at Pinehurst school project. The scope of analysis and approach were based on extensive past experience performing transportation impact analyses for projects throughout the City of Seattle, including numerous analyses prepared for projects by Seattle Public Schools. These analyses were prepared to support the SEPA Checklist for this project. This report documents the existing conditions in the site vicinity, presents estimates of project-related traffic, and evaluates the anticipated impacts to the surrounding transportation system including transit, parking, safety, and non-motorized facilities.

1.1. Project Description

Seattle Public Schools plans to replace the existing Pinehurst K-8 school with a new school to house the Jane Addams K-8 program. The existing Pinehurst K-8 is planned to be relocated as part of the new Wilson-Pacific Middle School and K-8 project, which is being evaluated separately as part of the larger Wilson-Pacific Schools project analysis. The following sections describe the existing school site and the proposed project to replace the school on the site.

1.1.1. Existing School

The Pinehurst school site is located at 11530 – 12th Avenue NE in Seattle. The school site is bounded by 12th Avenue NE to the west, NE 117th Street to the north, and Pinehurst Way NE to the southeast. The project site location and vicinity are shown in Figure 1.

The existing school, which is occupied by the Pinehurst K-8 program, has buildings with a total of about 31,500 square feet (sf) including classrooms, offices, a library, a gymnasium, auditorium / lunchroom, and a child care center (for before and after school care). In May 2013, enrollment at Pinehurst K-8 was reported at 188 students; however, over the past ten years, enrollment peaked at nearly 275 students in 2005.

According to information published in Building for Learning, Seattle Public Schools Histories, 1862-2000, the Pinehurst Primary School (a K-3 school) was originally constructed and opened by the Shoreline School District in 1950 with enrollment of 230 students. Due to attendance growth by 1952, the school was expanded at the same time it became part of the Seattle School District. The District changed its configuration to a K-6 school and enrollment increased to nearly 400 students. Enrollment peaked in 1954 at 560 students. Enrollment declined by the early 1970s, and the school was closed in 1981. It was re-opened in 1984 as Alternative School #1 and is now known as Pinehurst K-8.

In addition to the existing school buildings, the site has a small parking lot on the southwest corner, a paved area used for parking on the southeast side of the site, hard-surface play areas, and a small triangular grass playfield on the northeast corner. The site has three vehicular access points with two on 12th Avenue NE and one on Pinehurst Way NE. Some parking demand generated by school staff and parents occurs on-street surrounding the site especially on NE 117th Street.
JANE ADDAMS
K-8 SCHOOL
AT PINEHURST

Figure 1
Site Vicinity

heffron
transportation, inc
School bus load/unload occurs in two locations—along the west side (southbound) of Pinehurst Way NE adjacent to the site and along the east side of 12th Avenue NE. The curbside frontage along Pinehurst Way NE is signed “No Parking Any Time” and “School Bus Only” between 3:00 and 4:00 P.M. The curbside frontage along the east side of 12th Avenue NE is signed for “School Bus Only” between 7:00 and 9:00 A.M. and between 2:00 and 4:00 P.M.

1.1.2. Proposed Site Changes

The purpose of the proposed project is to provide a new building that meets the program needs for Jane Addams K-8, which opened in fall 2009 and currently operates out of the Jane Addams Middle School facility. The proposed new school would have an enrollment capacity of 680 students and is expected to have a total of up to 75 employees (50 full-time and 25 part-time). Construction is planned to occur from January 2015 to summer 2016. During construction, the existing Pinehurst K-8 would be relocated to an interim location.

The new Jane Addams at Pinehurst K-8 School building would be located on most of the north and eastern portions of the site. The new three-story building (roughly 92,000 square feet (sf)) would consist of 25 classrooms, science, art and music rooms, a library, a computer lab, a cafeteria, and a gymnasium. A child care center would also be accommodated in the new building. The new school site would include a hard-surface play area, a small turf playfield and a playground on the southeastern corner; it would include an outdoor classroom on the northwestern corner. The proposed new Jane Addams K-8 at Pinehurst would have nine (9) on-site parking spaces in two small parking lots. One would be located on the north side of the school with an access driveway on NE 117th Street; the other would be located toward the south end of the site with an access driveway on 12th Avenue NE. School bus load/unload zones are expected to be retained along the site frontage of 12th Avenue NE. A parent-vehicle load/unload zone is expected to be established along the south side of NE 117th Street.

As part of the project, frontage improvements are proposed along NE 117th Street and 12th Avenue NE that would consist of new curb and gutter, planter strips, sidewalk, and parallel on-street parking. Curb bulbs are proposed at the site corners on 12th Avenue NE and NE 117th Street as well as at the two proposed vehicular site access driveways. No change to the frontage along Pinehurst Way NE is proposed. The proposed site plan showing the proposed school and the planned frontage improvements is depicted in Figure 2.
Figure 2
Proposed Site Plan
2. BACKGROUND CONDITIONS

This section of the report presents the existing and future conditions without the proposed project. The impacts of the proposed project were evaluated against these base conditions. Year 2016 was selected as the future horizon year for the analyses, because this is the year the new school is scheduled to be completed and the site could be occupied with up to 680 students at the new Jane Addams K-8 School at Pinehurst. For comparison, and to provide an analysis of potential new traffic and parking impacts, year 2016 without-project conditions assume the existing Pinehurst K-8 would continue operating as is with its existing level of enrollment (about 190 students). 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.

Study area intersections were selected based on the travel routes expected to be used by parents, buses, and staff to access and egress the site area. The following lists the six intersections (and traffic control) that were evaluated for analysis for both the morning and afternoon peak hours. Site access was also analyzed for conditions with the project.

- NE 117th Street / Pinehurst Way NE (two-way stop control)
- Pinehurst Way NE / 15th Avenue NE (stop control on northbound 15th Avenue NE approach)
- NE 117th Street / 15th Avenue NE (two-way stop control)
- NE 117th Street / 12th Avenue NE (traffic circle)
- NE 115th Street / 12th Avenue NE / Pinehurst Way NE (stop control on NE 115th Street and 12th Avenue NE approaches)
- Pinehurst Way NE / Pedestrian Crossing north of NE 115th Street (pedestrian signal)

2.1. Roadway Network

As described previously, the school site is bounded by NE 117th Street on the north, 12th Avenue NE on the west, and Pinehurst Way NE on the southeast. The following provides descriptions of the key roadways near the site. Within the City of Seattle, the speed limit on arterials is 30 mph, unless otherwise posted; the speed limit on other local access residential streets is 25 mph.

**Pinehurst Way NE** connects Roosevelt Way NE to the south and NE 124th Street to the north, and is oriented in a diagonal direction. In the site vicinity between Roosevelt Way NE and 15th Avenue NE, it is a four-lane Principal Arterial 4 (two lanes in each direction). The roadway turns to become 15th Avenue NE, and just north of NE 117th Street, Pinehurst Way NE continues to the east of 15th Avenue NE where it is designated as a local access street. Near the site, both sides of the street have curbs, gutters, and sidewalks. There is a crosswalk controlled by a pedestrian actuated signal on the northeast leg of its intersection with NE 115th Street at 12th Avenue NE. All other side streets in the site vicinity are controlled by stop signs where they intersect Pinehurst Way NE. Pinehurst Way NE is also designated a minor transit street. Transit stops are located on both sides of the street just north of NE 115th Street.

Parking is allowed on the east side of Pinehurst Way NE except during the afternoon/evening peak period (3:00 to 7:00 P.M.) when parking is prohibited to provide an additional northbound travel lane. Parking is prohibited on the west side of the street. School buses are allowed to stop in the outside curb lane adjacent to the school site between 3:00 and 4:00 P.M. for afternoon loading.

---

4 Seattle Arterial Classifications Planning Map, City of Seattle, 2003.
12th Avenue NE is a two-lane, north-south local access street that connects from NE 123rd Street to just south of NE 113th Street. Near the school, there are grass/gravel shoulders on both sides of the street. Its intersection with NE 117th Street is controlled with a traffic circle; its approach to NE 115th Street is stop-sign controlled. On the east side of the street, along the school frontage, parking is restricted to school buses only between the hours of 7:00 and 9:00 A.M. and between 2:00 and 4:00 P.M. There are no parking restrictions on the west side of the street. Near the school, a school-zone speed limit of 20 mph is in effect when children are present.

NE 117th Street is a two-lane, east-west local access roadway that connects from 3rd Avenue NE west of the site to Lake City Way NE on the east. On the north side of the street, opposite the school, there are gravel shoulders where parking occurs. On the south side of the street, the gravel shoulders are wide enough for angle parking. As mentioned above, its approaches to 12th Avenue NE are controlled with a traffic circle. Its approaches to Pinehurst Way NE and 15th Avenue NE are stop-sign controlled. Near the school, a school-zone speed limit of 20 mph is in effect when children are present.

15th Avenue NE is a north-south roadway that provides access between Mountlake Terrace to the north and the University District to the south. Between NE 145th Street and Pinehurst Way NE it is designated as a Principal Arterial. It has four lanes with curbs, gutters, and sidewalks on both sides. Parking occurs on both sides of the street but is prohibited during the commuter peak hours to provide an additional travel lane. South of Pinehurst Way NE, 15th Avenue NE is designated as a Collector Arterial and has two lanes. On the west side of this street segment, there are paved shoulders for parking. The east side has variable shoulder conditions. Parking occurs along both sides of the street—mostly parallel on the east side and on the west side it is a mixture of parallel and private angle parking for businesses and multi-family housing. The northbound approach to Pinehurst Way NE is stop-sign controlled. 15th Avenue NE is designated as a major transit corridor between NE 45th Street and NE 145th Street. In the study area, there are transit stops on both sides of the street just north of NE 115th Street, on the west side just south of NE 120th St and on the east side just north of NE 120th Street.

NE 115th Street is a two-lane, east-west local access roadway that connects from 3rd Avenue NE to Sandpoint Way NE. In the site vicinity, between Roosevelt Way NE and 12th Avenue NE, the road has intermittent grass/gravel shoulders that are used for parking. On the north side of the street, there is also angled parking provided for the Seattle First Korean Church. Its approach to Pinehurst Way NE is controlled with a stop sign. Between 12th Avenue NE and 15th Avenue NE, there is no curb on the south side and parking is not allowed. On the north side, angle parking by local residents occurs.

Several planning documents were reviewed to determine what transportation improvements might be made near the Pinehurst site by 2016 when the new school is scheduled to open. These documents included: City of Seattle’s Adopted 2013-2018 Capital Improvement Program\(^5\) and 2014-2019 Proposed Capital Improvement Program;\(^6\) as well as the City’s School Road Safety Initiative.\(^7\) No projects were identified in these documents that would affect the roadway network or intersection capacity within the study area.

The City’s Proposed Bicycle Master Plan\(^8\) recommends a Cycle Track along Pinehurst Way NE adjacent to the site that would extend north on 15th Avenue NE and south on Roosevelt Way NE. A cycle track is a “protected bicycle lane that is physically separated from motor vehicle traffic and distinct from the sidewalk; they may be one-way or two-way, and may be at street level or raised several inches above.” If implemented, this project could narrow Pinehurst Way NE from four lanes to two lanes (one in each direction). The plan also recommends a Neighborhood Greenway along NE

---

\(^5\) City of Seattle, 2013.
\(^6\) City of Seattle, 2013.
\(^7\) City of Seattle, September 4, 2013.
\(^8\) City of Seattle, Department of Transportation, 2013.
117th Street between 8th and 25th Avenues NE, including adjacent to the site. The plan defines Neighborhood greenways as “residential streets with low motorized traffic volumes and speeds that are designated and designed to give bicycle and pedestrian safe and pleasant travel priority.” The greenway designation on NE 117th Street is not expected to modify the capacity of roadway or intersections near the school. This plan has not yet been adopted and projects would still require analysis to address questions related to operational impacts, parking impacts, and design. Therefore, neither of these potential projects was assumed to be in place for year 2016 conditions in this analysis. The roadways and intersections were assumed to remain unchanged by year 2016 for this analysis.

2.2. Traffic Volumes

To evaluate the potential traffic conditions near the site during the morning arrival and afternoon dismissal times for the new Jane Addams K-8 at Pinehurst, new peak period turning movement traffic counts were performed at the identified study-area intersections. Primary access routes to and from the proposed school by staff, parent vehicles, and school buses are expected to include these intersections.

The existing Pinehurst K-8 currently starts at 9:10 A.M. and is dismissed at 3:25 P.M.; Jane Addams K-8 currently starts at 8:20 A.M. and is dismissed at 2:35 P.M. To capture the existing traffic conditions during these hours, peak period traffic counts were performed from 7:30 to 9:30 A.M. and from 2:30 to 4:30 P.M. on Tuesday, October 29, 2013. During these periods, the highest existing hourly volumes in the morning mostly occurred from 8:15 to 9:15 A.M.; in the afternoon the highest hourly volumes occurred beginning at either 3:15 or 3:30 P.M. To reflect worst-case conditions, the peak hour traffic for each intersection was used as the basis for analysis and the volumes were balanced to the higher volumes along Pinehurst Way NE. The start and dismissal time of the new Jane Addams K-8 School at Pinehurst has not yet been determined; therefore, it was assumed to overlap with the existing peak hours during these periods. The morning and afternoon existing peak hour traffic volumes are shown on Figure 3 and Figure 4, respectively.

The new Jane Addams K-8 School at Pinehurst is expected to be opened and occupied in the fall of 2016. To estimate year 2016 background traffic for the study area intersections, a compound annual growth rate was selected and applied to the existing (2013) traffic volumes. The growth rate was determined after review of available historical traffic count data collected by the City of Seattle on Pinehurst Way NE northeast of NE 115th Street. Review of peak hour and daily volumes indicate that traffic volumes grew by about 1% annually between 2007 and 2011. Therefore, to reflect the potential for additional growth in background traffic, a 1% compound annual growth rate was applied to the existing traffic volumes to estimate 2016 traffic volumes without the project during the morning and afternoon peak periods. This growth rate is consistent with rates used for traffic analyses of other developments throughout Seattle. The 2016-without-project morning and afternoon peak hour traffic volumes are shown on Figure 5 and Figure 6, respectively.
Figure 3
Existing (2013) Traffic Volumes
Morning Peak Hour

JANE ADDAMS
K-8 SCHOOL
AT PINEHURST
Figure 4
Existing (2013) Traffic Volumes
Afternoon Peak Hour
JANE ADDAMS
K-8 SCHOOL
AT PINEHURST

Figure 6
Future (2016) Without-Project Traffic Volumes
Afternoon Peak Hour

02.03.14
2.3. Traffic Operations

Traffic operations analyses were performed for the study-area intersections. Traffic operations are evaluated using level of service (LOS) with six letter designations, “A” through “F.” 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 level of service definitions and thresholds are provided in Appendix A. LOS D or better is acceptable to the City of Seattle.

Levels of service were determined using procedures in the Highway Capacity Manual 2010. Delay is calculated using complex equations that consider a number of variables. For example, at unsignalized intersections, delay is determined for vehicles that must stop or yield for oncoming traffic. That 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. All level of service calculations were performed using the Synchro 8.0 traffic operations analysis software. The models reflect current intersection geometries and levels of service were reported using the HCM 2010 modules of the Synchro software (except for the signalized pedestrian crossing, which can only be modeled using the HCM 2000 module).

Table 1 summarizes existing (2013) and forecast 2016 levels of service without the proposed project for both the morning and afternoon peak hour conditions. As shown, the analysis indicates that all the intersections currently operate at LOS A overall and all individual movements operate at LOS C or better during both the morning and afternoon peak hours. The assumed growth in background traffic would add small amounts of delay to some movements by 2016; however, all levels of services are projected to remain the same as existing conditions during both peak hours.

It should be noted that based on observations performed at the existing school, parent-vehicles and school buses mix along NE 117th Street. The parking and unparking of parent vehicles combined with pedestrian activity that occurs between parent vehicles and the school site results in somewhat congested conditions along NE 117th Street east of 12th Avenue NE. In the afternoon, congested conditions lasted for about 10 to 12 minutes after school dismissal.

---

## Table 1. Level of Service Summary – Existing (2013) and 2016-Without-Project Conditions

<table>
<thead>
<tr>
<th>Two-Way-Stop Controlled Intersections</th>
<th>Morning Peak Hour</th>
<th>Afternoon Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing (2013)</td>
<td>2016 w/o project</td>
</tr>
<tr>
<td></td>
<td>LOS 1 Delay 2</td>
<td>LOS Delay</td>
</tr>
<tr>
<td>NE 117th St / Pinehurst Way NE (overall)</td>
<td>A 0.9 A 0.9</td>
<td>A 0.9 A 0.9</td>
</tr>
<tr>
<td>Northeast Left Turn</td>
<td>A 8.9 A 9.0</td>
<td>A 8.2 A 8.3</td>
</tr>
<tr>
<td>Eastbound Movements</td>
<td>B 11.9 B 12.0</td>
<td>C 15.1 C 15.5</td>
</tr>
<tr>
<td>Westbound Movements</td>
<td>C 15.1 C 15.5</td>
<td>C 18.6 C 19.1</td>
</tr>
<tr>
<td>Southwest Left Turn</td>
<td>A 0.0 A 0.0</td>
<td>A 0.0 A 0.0</td>
</tr>
<tr>
<td>Pinehurst Way NE / 15th Ave NE (overall)</td>
<td>A 4.2 A 4.2</td>
<td>A 6.2 A 6.5</td>
</tr>
<tr>
<td>Northbound Movement</td>
<td>A 9.6 A 9.6</td>
<td>C 17.3 C 18.3</td>
</tr>
<tr>
<td>Southwest Left Turn</td>
<td>A 8.9 A 9.0</td>
<td>A 9.6 A 9.7</td>
</tr>
<tr>
<td>NE 117th Street / 15th Ave NE (overall)</td>
<td>A 0.8 A 0.8</td>
<td>A 0.9 A 0.9</td>
</tr>
<tr>
<td>Northbound Left Turn</td>
<td>A 8.3 A 8.4</td>
<td>A 7.8 A 7.8</td>
</tr>
<tr>
<td>Eastbound Movements</td>
<td>B 13.0 B 13.2</td>
<td>B 13.0 B 13.3</td>
</tr>
<tr>
<td>Southwest Left Turn</td>
<td>A 7.5 A 7.6</td>
<td>A 8.3 A 8.3</td>
</tr>
<tr>
<td>Pinehurst Way / 12th Ave NE / NE 115th St</td>
<td>A 0.9 A 0.9</td>
<td>A 0.9 A 0.9</td>
</tr>
<tr>
<td>Northeast Left Turn to 12th Ave NE</td>
<td>A 9.2 A 9.3</td>
<td>A 8.5 A 8.6</td>
</tr>
<tr>
<td>Northbound Movements from 12th Ave</td>
<td>C 15.6 C 16.0</td>
<td>C 15.1 C 15.5</td>
</tr>
<tr>
<td>Southbound Movements from 12th Ave</td>
<td>B 12.5 B 12.6</td>
<td>B 14.4 B 14.7</td>
</tr>
<tr>
<td>Southwest Left Turn to 12th Ave NE</td>
<td>A 7.7 A 7.7</td>
<td>A 8.8 A 8.9</td>
</tr>
<tr>
<td>Northeast Left Turn to NE 115th St</td>
<td>A 0.0 A 0.0</td>
<td>A 8.3 A 8.4</td>
</tr>
<tr>
<td>Eastbound Movements from NE 115th</td>
<td>C 16.7 C 17.2</td>
<td>C 16.2 C 16.7</td>
</tr>
<tr>
<td>Westbound Movements from NE 115th</td>
<td>B 12.9 B 12.6</td>
<td>C 19.7 C 20.5</td>
</tr>
<tr>
<td>Southwest Left Turn to NE 115th St</td>
<td>A 0.0 A 0.0</td>
<td>A 8.9 A 8.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signalized Intersections</th>
<th>LOS Delay</th>
<th>LOS Delay</th>
<th>LOS Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinehurst Wy NE / Ped Crossing</td>
<td>1.2 A 1.2</td>
<td>A 1.2 A 1.2</td>
<td>A 1.2 A 1.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Traffic-Circle Controlled Intersections</th>
<th>LOS Delay</th>
<th>LOS Delay</th>
<th>LOS Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE 117th Street / 12th Ave NE (overall) 3</td>
<td>A 4.5 A 4.5</td>
<td>A 4.0 A 4.0</td>
<td>A 4.0 A 4.0</td>
</tr>
</tbody>
</table>

**Source:** Heffron Transportation, Inc., January 2014.

1. Level of service.
2. Average seconds of delay per vehicle.
3. Intersection is controlled by a traffic circle. Analysis assumes roundabout control for evaluation of level of service.

### 2.4. Site Access

The existing site has three vehicular access driveways. Two are located on 12th Avenue NE with one serving the small south parking lot and the other serving the small service/loading area. A third access driveway is located on Pinehurst Way NE and provides access to a paved area that is also used for staff parking.
2.5. Parking

On-street and off-street parking at and around the existing site was surveyed to determine the existing parking supply and parking demand. The following sections describe the on-street and off-street parking supply as well as the current parking demand and utilization rates.

2.5.1. On-Street Parking Utilization

A detailed on-street parking study was performed per the methodology outlined in the City of Seattle’s Department of Planning and Development (DPD) Tip #117 (formerly Client Assistance Memorandum (CAM) #117). The City requires use of this methodology to document the number and type of on-street parking spaces that are available to neighborhood residents or other users in the area. This analysis was completed to determine the existing parking supply and how much of that supply is currently utilized at different times of the day. Later in this report, this information is used to estimate how parking utilization could be affected by changes to the school site frontage and new parking demand generated by the proposed new Jane Addams K-8 School at Pinehurst.

The study area for the on-street parking utilization analysis included all roadways within an 800-foot walking distance from the school site corners. The 800-foot walking distance results in a study area that extends to just west of Roosevelt Way NE, north just beyond NE 120th Street, south to NE 113th Street, and east to 16th Avenue NE. Details about parking supply and demand are provided in the following sections.

Existing On-Street Parking Supply

Within the study area, there are a variety of street conditions. There are streets with curb, gutter, and sidewalk, streets with gravel shoulders, and streets with grass shoulders. Along streets with curbs, parking supply was considered available unless street signage indicated otherwise. In locations without curbs, the potential on-street parking supply was estimated by assuming areas with gravel or paved shoulders that are seven feet or greater in width could be used for parking. Although some on-street parking may occur within part of the travel way or on narrower grass shoulders on some roadway segments (as occurs on many City of Seattle residential roadways), field observations indicated that vehicles were not usually parked in those areas.

There are commercial, single family and multi-family land uses in the study area. It should be noted that almost all of the single-family residences within the study area have some off-street parking capacity such as driveways and/or garages that appear to provide most of the residential parking supply; however, some residents also use on-street parking. Although shoulders along many of the streets in the study area are wide enough for angle parking, most were analyzed as providing parallel parking only, which results in a conservatively low estimate of parking supply. Adjacent to some commercial establishments and multi-family housing, angle parking is available but appears to be all or partially on private property. This parking was not included if it was clearly defined as parking associated with the adjacent use.

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 NE 117th Street between 12th Avenue NE and Pinehurst Way NE is one block face (identified as block face ‘BA’). It should be noted that there is a private roadway that extends west of 12th Avenue NE opposite the school property that was not included in the study. The study area and the designated block faces are shown on Figure 7.
Figure 7
Study Area for On-Street Parking Utilization Surveys
Each block face was measured and analyzed to determine the number of available on-street parking spaces. First, common street features—such as driveways, fire hydrants, and special parking zones—were identified, and the distance from these features where parking is prohibited was noted. 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 of street between street features were converted to legal on-street parking spaces using values in the City’s Tip #117.

The parking supply survey determined that there are a total of 435 on-street parking spaces within the defined study area. The majority of these spaces are unrestricted spaces that have no time limits or constraints on type of vehicle. The exception is the school’s frontage along 12th Avenue NE, which is signed for “School Bus Only” between 7:00 and 9:00 A.M. and between 2:00 and 4:00 P.M. This curb-side area is available for parking during other times. There is also a signed school-bus zone in effect from 3:00 to 4:00 P.M. along the west side of Pinehurst Way NE between NE 117th and NE 115th Street although parking is not permitted during other times at this location.

Pinehurst Way NE diagonally divides the on-street parking utilization study area in roughly two halves. Although there is a signalized pedestrian crossing located at NE 115th Street, this arterial likely represents a barrier that could discourage drivers destined to the school site from parking in areas that require crossing Pinehurst Way NE. Of the 435 total spaces within 800 feet of the site, 229 (about 53%) are located along or northwest of Pinehurst Way NE. A total of 209 spaces are located across Pinehurst Way NE to the south and east and require crossing of the arterial to access the school.

Existing On-Street Parking Demand

Existing parking demand counts within the study area were performed in December 2013. Demand counts were performed at three different times: midday (between 11:00 A.M. and 12:00 P.M.) to reflect conditions when school-related parking demand would occur and on weekday evenings (between 7:30 and 8:30 P.M.) and weekend days (mid-day between 11:00 A.M. to 12:30 P.M.) to reflect conditions when school events could occur. The weekday counts were performed on two separate days—Thursday, December 5 and Tuesday, December 10, 2013. The weekend counts were performed on Saturday, December 7 and Sunday, December 8, 2013. The count results for each day were compiled and averaged.

The results of the parking demand surveys are summarized in Table 2. Detailed summaries of the on-street parking demand for each block face for all counts are included in Appendix B. As described in Tip #117, parking utilization is calculated as the number of vehicles parked on street divided by the number of legal on-street parking spaces within the study area or on a specific block face. The study area utilization totals are also summarized in Table 2. As shown, on-street parking in the study area during midday on weekdays was observed to be 32% utilized (an average of 141 vehicles parked in 435 spaces). In the evening, the utilization averaged 34% (147 vehicles parked in 435 spaces); on the weekend days the utilization averaged 31% (137 vehicles parked in 435 spaces). Utilization of parking on the school’s side (northwest) of Pinehurst Way NE had utilization of about 28% midday, 22% in the evenings, and 20% on weekend days. Utilization rates on roadways to the east and south side of Pinehurst Way NE were about 37% on weekdays, 47% in the evenings, and 44% on weekend days.
Table 2. Parking Demand Survey Results – December 2013

<table>
<thead>
<tr>
<th>Time Period Surveyed</th>
<th>Parking Supply</th>
<th>Total Vehicles Parked</th>
<th>% Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weekdays Mid Morning (11:00 A.M. to 12:00 P.M.)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thursday, December 5, 2013</td>
<td>435</td>
<td>135</td>
<td>31%</td>
</tr>
<tr>
<td>Tuesday, December 10, 2013</td>
<td>435</td>
<td>146</td>
<td>34%</td>
</tr>
<tr>
<td>Average Mid-Morning</td>
<td>435</td>
<td>141</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Weekday Evenings (7:30 to 8:30 P.M.)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thursday, December 5, 2013</td>
<td>435</td>
<td>160</td>
<td>37%</td>
</tr>
<tr>
<td>Tuesday, December 10, 2013</td>
<td>435</td>
<td>134</td>
<td>31%</td>
</tr>
<tr>
<td>Average Evening</td>
<td>435</td>
<td>147</td>
<td>34%</td>
</tr>
<tr>
<td><strong>Weekend Days – Mid-Day (11:00 A.M. to 12:30 P.M.)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saturday, December 7, 2013</td>
<td>435</td>
<td>146</td>
<td>34%</td>
</tr>
<tr>
<td>Sunday, December 8, 2013</td>
<td>435</td>
<td>128</td>
<td>29%</td>
</tr>
<tr>
<td>Average Weekend</td>
<td>435</td>
<td>137</td>
<td>31%</td>
</tr>
</tbody>
</table>


2.5.2. On-Site Parking

As described previously, there are three areas that are used for parking on site. The small south parking lot has 13 spaces; the load/service area has room for about 3 vehicles; and the paved area on the east side of the building is not striped, but has room for about 17 vehicles. A parking demand count was performed within these lots midday (between 11:00 A.M. and 12:00 P.M.) on Thursday, January 30, 2014. The count found 17 vehicles parked on site in these three areas (3 in the south lot, 2 in the service/load area, and 12 in the east lot). It is noted that some staff and parent volunteer parking demand generated by the school on weekdays occurs on-street near the school, particularly along the south side of NE 117th Street.

2.6. Traffic Safety

Collision data for the intersections and roadways segments surrounding the project site were obtained from the City of Seattle Department of Transportation (SDOT). The City of Seattle data reflecting the period between January 1, 2010 and December 31, 2013 (4 years) are summarized in Table 3. The data were examined to determine if there are any unusual traffic safety conditions that could impact or be impacted by the proposed project.

During the four-year analysis period, the highest number of collisions occurred at the Pinehurst Way NE / NE 115th Street intersection. Of the 13 right angle collisions, seven involved vehicles south-westbound on Pinehurst Way NE and vehicles westbound on NE 115th Street. The average number of collisions per year at this intersection (3.25) is below the city’s threshold of 5 collisions per year to indicate a potential high collision location. There were very few collisions at the other study area intersections and roadway segments reported during the 4-year time period. None of the intersection or roadway segment collisions involved fatalities.
Table 3. Collision Summary (January 1, 2010 through December 31, 2013)

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Rear-End</th>
<th>Side-Swipe</th>
<th>Left Turn</th>
<th>Right Angle</th>
<th>Ped/Cycle</th>
<th>Other</th>
<th>Total for 4 Years</th>
<th>Average/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>12th Ave NE / NE 117th St</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>12</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td>Pinehurst Wy NE / NE 117th St</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>Pinehurst Wy / 12th Ave / 115th St</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>1</td>
<td>15</td>
<td>3</td>
<td>3.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Roadway Segments</th>
<th>Rear-End</th>
<th>Side-Swipe</th>
<th>Left Turn</th>
<th>Right Angle</th>
<th>Ped/Cycle</th>
<th>Other</th>
<th>Total for 4 Years</th>
<th>Average/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>12th Ave NE – between NE 117th St and NE 115th St</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>12</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>NE 117th St – between 12th Ave NE and Pinehurst Wy NE</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>12</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Pinehurst Wy NE – between NE 117th St and NE 115th St</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>2</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Source: City of Seattle Department of Transportation, December 2013.

2.7. Transit Facilities and Service

King County Metro Transit provides bus service adjacent to the project site. The closest bus stops are located on Pinehurst Way NE at NE 115th Street. Stops serving both directions of travel are located on the north side of the signalized pedestrian crosswalk. These stops are served by Metro Routes 347 and 348. Routes 347 and 348 provide all-day service seven days per week between the Northgate Transit Center, Richmond Beach, and Mountlake Terrace. The routes operate from about 5:20 A.M. to 11:40 P.M. with headways (time between consecutive buses) of about 10 to 30 minutes. There are also stops located about 660 feet north of the site on 15th Avenue NE at NE 120th Street. These stops are served by Routes 347 and 348, as well as Routes 73, 77, and 373. Route 73 provides all-day service seven days per week between Downtown Seattle, the International District, University of Washington, and the Maple Leaf, Ravenna, and Jackson Park neighborhoods. Route 77 provides weekday peak-direction, peak-period service between Downtown Seattle and North City (at NE 175th Street). Route 373 provides weekday peak-direction, peak-period service between the University of Washington and the Aurora Village Transit Center in Shoreline.

Students attending an Option K-8 School (such as Pinehurst K-8 or the future Jane Addams K-8 at Pinehurst) whose transportation service address is within the boundaries of their service area or linked service area and outside of the designated walk boundaries are eligible for transportation. District-arranged transportation is provided for those students attending a K-8 Option School in their service area or linked service area. ORCA cards, for King County Metro transit service, may be provided for 6th through 8th grade students who live within the boundaries of Seattle Public School District choosing a school outside of their service area.

2.8. Non-Motorized Transportation Facilities

As described in the Roadway Network section, Pinehurst Way NE and 15th Avenue NE near and adjacent to the site have sidewalks on both sides. In addition, there is a signalized pedestrian crossing of Pinehurst Way NE just north of NE 115th Street at the south corner of the site. However, the other roadways adjacent to and near the site do not have sidewalks or walkways of any kind, including 12th Avenue NE and NE 117th Street. During observations of afternoon peak period conditions, several...
parents and students were observed walking in the travel lanes along NE 117th Street and 12th Avenue NE due to the lack of sidewalks and the unorganized parking conditions within the shoulders.

As described previously, City’s Proposed Bicycle Master Plan recommends a cycle track along Pinehurst Way NE and a Neighborhood Greenway along NE 117th Street adjacent to the site. This plan has not yet been adopted and it is unclear if and when these projects might be implemented.

3. PROJECT IMPACTS

This section of the report describes the conditions that would exist with the new Jane Addams K-8 School at its planned enrollment capacity of 680 students. The project would demolish the existing school at the Pinehurst school site including the buildings, paved areas, utilities, and other existing site features. A new school, including a three-story building with about 92,000 sf, would be constructed on the site. Other site development would include two small parking areas, new utility connections, and a turf playfield.

The vehicle trip estimates associated with the new school were added to the 2016-without-project traffic volume forecasts. Level of service analyses were performed to determine the proposed project’s impact on traffic operations in the study area, including the site accesses. Parking demand and the potential change to on-street parking utilization was also estimated. The following sections describe the methodology used to determine the proposed project’s impacts.

3.1. Roadway Network

Frontage improvements are proposed along NE 117th Street and 12th Avenue NE that would consist of new curb and gutter, planters, and a sidewalk. Parallel, on-street parking is proposed along the south side of NE 117th Street and 12th Avenue NE adjacent to the school. Curb bulbs are proposed at the corners of 12th Avenue NE and NE 117th Street. No changes to the frontage along Pinehurst Way NE are proposed.

Similar to existing conditions, the frontage of the school along the east side of 12th Avenue NE is expected to be designated for school-bus load/unload only during morning arrival and afternoon dismissal. The parallel parking along the south side of NE 117th Street is expected to be designated for parent-vehicle load/unload during the same periods. The frontage along the west side of Pinehurst Way NE could continue to be signed for peak period school-bus load/unload. The exact times and locations of the restrictions would be determined once the school and transportation schedules have been determined. No other changes to the roadway network are proposed as part of the project.

3.2. Traffic Volumes

The proposed project would generate new vehicular, pedestrian, and bicycle activity on the surrounding transportation network. The new school is expected to have an enrollment capacity of 680 students. As described previously, the existing Pinehurst K-8 had an enrollment of about 190 students at the time of this analysis (it has had enrollment as high as 275 students in the past ten years). With the enrollment increase from 190 students to the proposed capacity of 680 students, the school is expected to generate an increase in daily and peak hour traffic compared to existing conditions. The following describes the assumptions used to determine the traffic anticipated from the proposed project.
3.2.1. School Trip Generation

Trip generation estimates for school projects are typically developed using one of two methods. For existing schools located in areas where school-related traffic can easily be isolated and identified, traffic counts can be used to develop rates specifically for that school. This method works best where all school-related trips occur at site driveways and when parent-vehicle and school-bus loading occurs on-site. For existing school locations on or near arterials, near other major traffic generators (such as other schools that have similar hours), and those that have parent-vehicle loading off-site, it is difficult to isolate school-related traffic from non-school traffic using counts. For those conditions and for estimating traffic of new schools, rates published in the Institute of Transportation Engineers’ *Trip Generation Manual* are typically applied. Due to the location and configuration of access at both the existing Pinehurst K-8 and the existing Jane Addams K-8 (relying on on-street loading/unloading and located near Nathan Hale High School with similar hours), trip generation could not be reliably quantified with counts. Therefore, the published rates were used for both the existing and proposed schools in this analysis.

The *Trip Generation Manual* includes rates for Elementary Schools (Land Use 520), Middle Schools (Land Use 522), and Private K-8 Schools (Land Use 534). The rates developed for elementary and middle schools were based on data from both public and private schools and reflect some level of school-bus transportation for the public schools. Public middle school rates are slightly higher than a public elementary school and likely reflect additional trips made with increased after-school activities or a larger enrollment area. The rates developed for the Private K-8 schools did not reflect the level of school bus transportation typically found within public school systems and were higher than the rates for elementary and middle schools. Since students at both K-8 schools that qualify for transportation could ride school buses, the trip generation rates are expected to be lower than for a private K-8 school. However, since both schools are also option schools within the District and draw from a larger area with fewer students able to walk or bike to school, the trip generation rates could be higher than those published for elementary and middle schools. To account for these potential conditions that could be expected at public K-8 schools, the Middle School and Private K-8 School rates were averaged and applied for this analysis. Table 4 summarizes the peak hour trip generation rates that were applied for the existing and proposed schools for this analysis.

<table>
<thead>
<tr>
<th>Period</th>
<th>Middle School Rates a</th>
<th>Private K-8 School Rates b</th>
<th>Applied for K-8 Schools at Pinehurst</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morning Peak Hour (8:15 to 9:15 A.M.)</td>
<td>0.54</td>
<td>0.90</td>
<td>0.72</td>
</tr>
<tr>
<td>Afternoon Peak Hour (3:15 to 4:15 P.M.)</td>
<td>0.30</td>
<td>0.60</td>
<td>0.45</td>
</tr>
</tbody>
</table>


The rates presented in Table 4 were applied to the enrollment levels of the existing and proposed new K-8 schools at the Pinehurst site to determine the potential net change in traffic. These estimates include trips that would be made by staff, parents, and school buses and are higher than would be found for typical public elementary or middle schools, but lower than would be found for a private K-8 school.
8 school. Based on existing school bus activity, it was assumed that the new Jane Addams K-8 at Pinehurst would be served by up to eight full-sized buses and four or five of the smaller Special Education [SPED] and/or Special Needs buses. Table 5 presents the estimated net change in trips at the site with removal of the existing school and construction of the new school.

Table 5. Jane Addams K-8 School at Pinehurst – Trip Generation Estimates

<table>
<thead>
<tr>
<th>Site Condition</th>
<th>Enrollment</th>
<th>Morning Peak Hour (8:15 to 9:15 A.M.)</th>
<th>Afternoon Peak Hour (3:15 to 4:15 P.M.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>In</td>
<td>Out</td>
</tr>
<tr>
<td>Proposed Jane Addams K-8</td>
<td>680 students a</td>
<td>270</td>
<td>220</td>
</tr>
<tr>
<td>Existing Alternative School #1</td>
<td>-190 students b</td>
<td>-75</td>
<td>-60</td>
</tr>
<tr>
<td><strong>Net Change</strong></td>
<td>490 students</td>
<td>195</td>
<td>160</td>
</tr>
</tbody>
</table>


a. Planned enrollment capacity for new school.
b. Enrollment of the existing school at the time of analysis (2013).

### 3.2.2. Trip Distribution & Assignment

The net change in school traffic presented in Table 5 for the proposed Jane Addams K-8 School at Pinehurst was assigned to the local roadway network. The distribution patterns for morning and afternoon peak hour trips were estimated based on the potential locations of parent-vehicle loading/unloading activities, the location of the proposed bus load/unload zones, the locations of parking (on-site and on-street), and the existing traffic patterns at the site. Most of the morning and afternoon peak hour trips are expected to consist of parent vehicles (for student drop off and pick up) and school buses. Some trips also would likely be generated by teachers or staff.

The school bus load/unload zones would remain where they currently exist on 12th Avenue NE (where the primary morning drop off area would be located), as well as along Pinehurst Way NE (if additional bus staging areas are needed for afternoon loading). School buses would continue approaching the load/unload area on 12th Avenue NE from the south. After unloading or loading at the bus zone, buses would depart to the north turning either left or right onto NE 117th Street (similar to existing conditions). Parents dropping off and picking up students are likely to arrive from all directions as they do currently, but would focus the load/unload activities to NE 117th Street.

The estimated project traffic distribution patterns and assignments of net new trips are shown on Figure 8 for the morning peak hour and on Figure 9 for the afternoon peak hour. The net new peak hour school trips were added to the forecast 2016 without-project traffic volumes to represent future conditions with the new school on the site. The forecast 2016 with-project morning and afternoon peak hour traffic volumes are shown on Figure 10 and Figure 11, respectively.
Figure 8
Project Net Trip Distribution and Assignment
Morning Peak Hour
Figure 9
Project Net Trip Distribution and Assignment
Afternoon Peak Hour
Figure 10
Future (2016) With-Project Traffic Volumes
Morning Peak Hour

JANE ADDAMS
K-8 SCHOOL
AT PINEHURST

heffron
transportation, inc.
Figure 11
Future (2016) With-Project Traffic Volumes
Afternoon Peak Hour

JANE ADDAMS
K-8 SCHOOL
AT PINEHURST
3.3. Traffic Operations

Intersection levels of service for future with-project conditions were determined using the same methodology described previously for existing and future without-project conditions. The school is expected to generate new pedestrian trips and could increase the number of pedestrian crossings at the nearby study intersections. The potential increases in pedestrian crossing activity as well as the added school bus trips and the peaking characteristics of school traffic (school drop-off and pick-up primarily occurs during about 25 minutes in the peak hour) have all been accounted for in the operations analyses of the study area intersections.

Levels of service for the off-site study area intersections were calculated using the 2016-with-project traffic volumes. The level of congestion could be reduced if school-bus load/unload activities were relocated to the frontage on Pinehurst Way NE. This would allow parent-vehicle load/unload to occur along 12th Avenue NE as well as NE 117th Street and could expedite the peak periods and spread out the peak period demand that would otherwise be very concentrated at and around the NE 117th Street/12th Avenue NE intersection. The District should work with SDOT to determine if school-bus load/unload can be relocated to Pinehurst Way NE for morning and afternoon peak periods. Table 6 shows the results of the analysis; levels of service for the 2016-without-project conditions are shown for comparison. As shown, the additional traffic that would be generated by the new Jane Addams K-8 School at Pinehurst would add some delay to several of the study area intersections and turning movements during both the morning and afternoon peak hours. However, all intersections would continue to operate at LOS A overall and all movements would operate at LOS C or better during both periods.

The site’s limited amount of on-site parking and loading/unloading space for parent-vehicles would contribute to morning and afternoon peak hour congestion. In the future with the proposed new school and higher enrollment level, traffic congestion is expected to be more prevalent during the afternoon peak hour than the morning peak hour. Traffic volumes would continue to be higher during the morning conditions since parents and school buses typically drop off students and then leave the site area during this time. In the afternoon, parents and school buses typically park and wait for dismissal. With the increased enrollment, there would not be adequate on-site or on-street space immediately adjacent to the site for the volume of parent-vehicles that will likely wait for students after school. As a result, parents will likely continue to be parked in many areas near the site including along NE 117th Street and 12th Avenue NE north and west of the site where students would walk to these parked vehicles.

The level of congestion could be reduced if school-bus load/unload activities were relocated to the frontage on Pinehurst Way NE. This would allow parent-vehicle load/unload to occur along 12th Avenue NE as well as NE 117th Street and could expedite the peak periods and spread out the peak period demand that would otherwise be very concentrated at and around the NE 117th Street/12th Avenue NE intersection. The District should work with SDOT to determine if school-bus load/unload can be relocated to Pinehurst Way NE for morning and afternoon peak periods.
## Table 6. Level of Service Summary – 2016-Without- and With-Project Conditions

<table>
<thead>
<tr>
<th>Intersections</th>
<th>Morning Peak Hour</th>
<th></th>
<th>Afternoon Peak Hour</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-Way-Stop Controlled</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE 117th St / Pinehurst Way NE (overall)</td>
<td>LOS 1</td>
<td>Delay 2</td>
<td>LOS Delay</td>
<td></td>
</tr>
<tr>
<td>Northeast Left Turn</td>
<td>A 0.9</td>
<td>A 2.4</td>
<td>A 0.9</td>
<td>A 2.5</td>
</tr>
<tr>
<td>Eastbound Movements</td>
<td>A 9.0</td>
<td>A 9.3</td>
<td>A 8.3</td>
<td>A 8.4</td>
</tr>
<tr>
<td>Westbound Movements</td>
<td>B 12.0</td>
<td>B 14.7</td>
<td>C 15.5</td>
<td>C 21.5</td>
</tr>
<tr>
<td>Southwest Left Turn</td>
<td>C 15.5</td>
<td>C 19.6</td>
<td>C 19.1</td>
<td>C 21.5</td>
</tr>
<tr>
<td>Pinehurst Way NE / 15th Ave NE (overall)</td>
<td>A 0.0</td>
<td>A 0.0</td>
<td>A 0.0</td>
<td>A 0.0</td>
</tr>
<tr>
<td>Northbound Movement</td>
<td>A 9.0</td>
<td>A 9.2</td>
<td>A 9.7</td>
<td>A 9.9</td>
</tr>
<tr>
<td>Southwest Left Turn</td>
<td>A 9.6</td>
<td>A 9.7</td>
<td>A 18.3</td>
<td>A 19.1</td>
</tr>
<tr>
<td>Eastbound Movements</td>
<td>B 13.2</td>
<td>B 13.5</td>
<td>A 14.5</td>
<td>A 14.7</td>
</tr>
<tr>
<td>Westbound Movements</td>
<td>B 13.3</td>
<td>B 13.9</td>
<td>B 14.5</td>
<td>B 14.7</td>
</tr>
<tr>
<td>Southwest Left Turn</td>
<td>A 7.6</td>
<td>A 7.6</td>
<td>A 8.3</td>
<td>A 8.3</td>
</tr>
<tr>
<td>Pinehurst Wy / 12th Ave NE / NE 115th St</td>
<td>A 0.9</td>
<td>A 2.3</td>
<td>A 0.9</td>
<td>A 2.2</td>
</tr>
<tr>
<td>Northeast Left Turn to 12th Ave NE</td>
<td>A 9.3</td>
<td>B 10.4</td>
<td>A 8.6</td>
<td>A 9.5</td>
</tr>
<tr>
<td>Northbound Movements from 12th Ave</td>
<td>C 16.0</td>
<td>C 22.5</td>
<td>C 15.5</td>
<td>C 21.7</td>
</tr>
<tr>
<td>Southbound Movements from 12th Ave</td>
<td>B 12.6</td>
<td>C 15.4</td>
<td>B 14.7</td>
<td>C 18.7</td>
</tr>
<tr>
<td>Southwest Left Turn to 12th Ave NE</td>
<td>A 7.7</td>
<td>A 7.7</td>
<td>A 8.9</td>
<td>A 9.0</td>
</tr>
<tr>
<td>Northeast Left Turn to NE 115th St</td>
<td>A 0.0</td>
<td>A 0.0</td>
<td>A 8.4</td>
<td>A 8.5</td>
</tr>
<tr>
<td>Eastbound Movements from NE 115th</td>
<td>C 17.2</td>
<td>C 19.7</td>
<td>C 16.7</td>
<td>C 17.7</td>
</tr>
<tr>
<td>Westbound Movements from NE 115th</td>
<td>B 12.6</td>
<td>B 13.4</td>
<td>C 20.5</td>
<td>C 21.5</td>
</tr>
<tr>
<td>Southwest Left Turn to NE 115th St</td>
<td>A 0.0</td>
<td>A 0.0</td>
<td>A 8.9</td>
<td>A 9.0</td>
</tr>
<tr>
<td>Signalized</td>
<td>LOS Delay</td>
<td>LOS Delay</td>
<td>LOS Delay</td>
<td></td>
</tr>
<tr>
<td>Pinehurst Wy NE / Ped Crossing</td>
<td>A 1.2</td>
<td>A 2.1</td>
<td>A 1.2</td>
<td>A 2.0</td>
</tr>
<tr>
<td>Traffic-Circle Controlled</td>
<td>LOS Delay</td>
<td>LOS Delay</td>
<td>LOS Delay</td>
<td></td>
</tr>
<tr>
<td>NE 117th Street / 12th Ave NE (overall) 3</td>
<td>A 4.5</td>
<td>A 6.1</td>
<td>A 4.0</td>
<td>A 4.8</td>
</tr>
</tbody>
</table>

**Source:** Heffron Transportation, Inc., April 2014.

1. Level of service.
2. Average seconds of delay per vehicle.
3. Intersection is controlled by a traffic circle. Analysis assumes roundabout control for evaluation of level of service.

### 3.4. Site Access

The turning movements at the proposed new site driveways on 12th Avenue NE and NE 117th Street are anticipated to operate at LOS A during both the morning and afternoon peak times. The proposed roadway frontage improvements with the planned curb bulbs would help to ensure that adequate sight lines are available for exiting drivers.
3.5. Parking Demand and Supply

The proposed project would construct a small parking lot (4 spaces) on the southwest side of the new building with an access driveway about 215 feet south of NE 117th Street (about the same location as the existing service/load access driveway). The new service/load area would also provide some staff parking (5 spaces) and would be accessed from a new driveway on NE 117th Street (about 160 feet east of 12th Avenue NE). The project would eliminate the existing parking lot located southwest of the existing school and the paved parking area on the east side of the building along with the associated driveways on 12th Avenue NE and NE Pinehurst Way.

The frontage improvements proposed along the south side of NE 117th Street and the east side of 12th Avenue NE would alter the way those areas are used for parking. Currently, the gravel shoulder along the south side of NE 117th Street is used for angle parking. When this area is reconfigured to provide curb, gutter, sidewalk, planters, parallel parking, and a new access driveway, the parking supply would be reduced by an estimated 17 spaces (reduced from 37 angle spaces to 20 parallel spaces). Along 12th Avenue NE, the elimination of one of the site access driveways would result in one additional parallel parking space.

3.5.1. Changes to On-Street Parking

The proposed project would result in three changes that would affect study area parking conditions. First, as mentioned previously, frontage improvements along NE 117th Street would convert angle parking to parallel parking resulting in a reduction of about 17 spaces. Second, it would likely implement new peak period parking restrictions to accommodate and parent-vehicle load/unload activities. These two actions would displace parking demand that now occurs on the south side of NE 117th Street to other on-street parking locations. Finally, the project would increase staffing levels at the site with the higher enrollment level and would generate more parking demand that would spill onto nearby streets.

In order to accommodate load/unload activities of school buses, the entire school frontage along the east side of 12th Avenue NE is expected to continue to be designated and signed for “School Buses Only” during the morning and afternoon peak periods. The parent-vehicle load-unload activity is expected to occur in the new parallel parking areas along the south side of NE 117th Street between 12th Avenue NE and Pinehurst Way NE with new “School Load Only” restrictions along the site frontage. The restrictions of curb-side loading areas would likely be in effect during peak morning and afternoon periods (likely 7:00 to 9:00 A.M. and 2:00 to 4:00 P.M.). Those wishing to park (e.g., parents who walk onto school site to meet a child after school) would not be able to use the 17 spaces proposed along NE 117th Street during those restricted times.
3.5.2. School Parking Demand

Parking demand estimates for the new Jane Addams K-8 School at Pinehurst were developed based on the existing and anticipated staffing levels at the school, and based on parking demand counts performed at Jane Addams K-8 in October 2013. The existing school has 72 staff. Parking demand at the school during mid-morning (between 10:00 and 11:00 A.M. when school demand typically peaks) was found to average 68 vehicles on two days. This demand level, which includes staff, parents, and other visitors equates to a rate of 0.94 vehicles per employee and is in the range expected for schools located in an urban environment (typically 0.8 to 1.25 vehicles per employee). Based on this rate, the proposed new school with up to 75 employees could generate midday parking demand of about 71 vehicles when the school is relocated to the Pinehurst site. A small portion of the midday parking demand (9 vehicles) could be accommodated within the on-site parking lots; the remaining demand (about 62 vehicles) is expected to use on-street parking near the site.

The existing Pinehurst K-8 has about 25 employees. Using this same rate, the existing Pinehurst K-8 generates a demand of about 24 vehicles, including staff, parents and visitors. Most of the parking demand generated by these employees is accommodated on-site with some overspill to the south side of NE 117th Street (estimated at eight to ten vehicles).

With the new Jane Addams K-8 School at Pinehurst, on-street parking is expected to increase by 52 to 54 vehicles. It is noted that due to the proximity of transit service at the Pinehurst site, staff may be better able to rely on bus service than at their current site.

As described previously in the Parking section, the adjacent and nearby on-street parking within 800 feet of the site and north and west of Pinehurst Way NE was found to be about 28% utilized with about 165 spaces available. The total on-street supply is expected to be reduced during peak periods by about 17 spaces due to load/unload zone restrictions. With the reduction in supply, and the new overspill demand generated by the proposed project (56 vehicles), the on-street parking utilization near the school site is expected to increase to about 56% midday on school days. This increase can be accommodated within the site area, but would be noticeable to neighbors; especially those located close the school. With the project, block faces nearest the school could have demand that is at or near capacity, while roadways further from the site may not experience any increases in demand.

3.5.3. Evening Event Parking

The new Jane Addams K-8 School at Pinehurst would have a gymnasium and cafeteria that would be used for events at the school. The school is expected to host evening events periodically throughout the school year that could use these spaces. The types of events that are likely to occur include the following:

- **Large School Events** – Typically occur about once or twice per month per month. They include events such as: Curriculum Night, Music Concerts, Bingo Night, Middle School Dance, Open House & Tours, Family Game Night, and Science Celebration & Ice Cream Social. Some of the larger events have staggered arrivals and not all attendees are on site at once, while others have fixed start and end times and all attendees are on site simultaneously.


**PTSA Meetings** – Occur once a month.

**Community Meetings** – The site may be scheduled for use by community groups (e.g. Cub Scouts, Boy Scouts, Brownies, etc.) for meetings that may occur in classrooms, the lunchroom, gymnasium, or other areas of the school.

**Athletics** – Boys and girls basketball games would be held in the gymnasium.

With the larger enrollment capacity at the new Jane Addams K-8 School at Pinehurst, attendance at the larger school events would also increase. Typically for larger events, there are between 3.0 and 3.5 persons attending for each parked vehicle. This rate accounts for higher levels of carpooling (parents and children in a single vehicle) as well as drop-off activity that does not generate parked vehicles. Some of the event-related demand (about 47 vehicles) could be accommodated on-site and along the site frontage in the parallel parking on NE 117th Street and 12th Avenue NE. Additional event-related demand would occur on-street near the school. Based on the on-street parking utilization analysis presented previously, there was an average of about 180 on-street spaces available within the study area north and west of Pinehurst Way NE in the evenings when events could occur. However, the frontage improvements along NE 117th Street would reduce the available capacity to about 163 spaces during evenings. Large events that attract 500 attendees or more to the site at one time would likely cause the on-street parking utilization within 800 feet of the school and north and west of Pinehurst Way to exceed 85%, which is generally considered full by the City of Seattle.

The school frontage along Pinehurst Way NE is currently signed for no parking at any time. If parking were permitted in the curbside lane, it could provide about 28 additional parking spaces that could reduce the parking impacts of the project during midday and/or evening periods.

### 3.6. Traffic Safety

The collision data provided for the study area do not show a significant collision pattern that would impact or be impacted by the proposed project. However, due to the increase in traffic and pedestrian activity generated by the new Jane Addams K-8 School at Pinehurst, several measures are recommended to enhance safety conditions in the area. These are discussed in Section 4 – Findings and Recommendations of this report.

### 3.7. Transit

A small number of transit trips may be generated by the teachers or staff at the site. The nearest transit stops are currently located adjacent to the school site on Pinehurst Way NE at NE 115th Street. In addition, ORCA cards may be provided for 6th through 8th grade students who live within the boundaries of Seattle Public School District choosing a school outside of their service area. However, any student riders typically use service outside of the traditional commuter peak times. Therefore, the project is not expected to result in adverse impacts to transit facilities or operations.

The school bus load/unload zones would remain where they currently exist on 12th Avenue NE (where the primary morning drop off area would be located), as well as along Pinehurst Way NE (if additional bus staging areas are needed for afternoon loading).
3.8. Non-Motorized Transportation Facilities

The new Jane Addams K-8 School at Pinehurst is expected to increase pedestrian and bicycle trips within the site vicinity. The proposal would construct new sidewalks along its site frontages on NE 117th Street and 12th Avenue NE. Since many of the roadways surrounding the site do not have pedestrian facilities (either sidewalks or paved paths), some school-generated pedestrian trips may occur in the travel way of some roadways. The District should work to identify potential future walk routes, and coordinate with the City to identify potential improvements that could be funded through the City’s School Road Safety Initiative or other grant programs. The District should also coordinate with SDOT to implement and enforce school-zone speed limits near the site.

Although not officially adopted, the City’s Bike Master Plan recommends a Cycle Track along Pinehurst Way NE adjacent to the site, as well as a Neighborhood Greenway on NE 117th Street. The design of such projects should account for the bus loading and parent pick-up and drop-off areas on each street, activities that occur today and would continue in the future with the proposed project.

3.9. Short-term Impacts from Construction

Construction for the proposed project is scheduled to begin in June 2014 and last for approximately 26 months, with completion in August 2016. The proposed building is to be set at approximately the same elevation as the existing building, but some site grading will be required at the locations of the loading dock access drive, the grass play field, and the soft play area at the southwest corner of the site. Overall the site will require removal of about 14,100 cubic yards (cy) of earth and import of about 4,000 cy of fill. It is assumed that all cut material will be exported form the site and all fill material will be imported to the site from an approved source. Assuming an average of 10-cubic yards per truck, the excavation and fill would generate about 1,810 truckloads (1,810 trucks in and 1,810 trucks out). The export and import would likely require a total of about 30 weeks that would be spread out over the course of the project. When earthwork does occur, it would likely result in about 60 truckloads per week and about 12 truckloads per day. This would correspond to about three or four truck trips per hour on a typical eight-hour construction work day. This volume of truck traffic would be noticeable to nearby residents, but is not expected to result in significant impacts to traffic operations in the site vicinity.

The construction of the project would also generate employee and equipment trips to and from the site. It is anticipated that construction workers would arrive at the construction site before the AM peak traffic period on local area streets and depart the site prior to the PM peak period; construction work shifts for schools are usually from 7:00 A.M. to 3:30 P.M., with workers arriving between 6:30 and 6:45 A.M. The number of workers at the project site at any one time would vary depending upon the construction element being implemented. Some parking for construction personnel would be provided within the site, but some construction workers could park along the site frontage.
4. FINDINGS AND RECOMMENDATIONS

The following summarizes the findings of the analysis:

- The new Jane Addams K-8 School at Pinehurst is expected to accommodate a student capacity of 680 and have about 50 full-time and 25 part-time employees. This new school would replace the existing Pinehurst K-8, which has a current enrollment of about 190 students with about 25 employees.

- The new school is projected to generate a net increase of 335 trips during the morning peak hour and 210 trips during the afternoon peak hour.

- Traffic conditions will continue to be busy along the roadways that surround the site—NE 117th Street and 12th Avenue NE—in the morning before school begins and in the afternoon when school is dismissed.

- The school would generate pedestrian and bicycle trips within the site vicinity and the increase in pedestrian trips is expected to noticeably increase the frequency of pedestrians crossing NE 117th Street, 12th Avenue NE, and Pinehurst Way NE (at the signalized crossing) as students and parents walk between the school, local residences, and on-street parking that surround the site. This activity would add some delay to vehicle traffic, but would not result in significant adverse impacts to traffic operations at intersections in the site vicinity.

- New traffic generated by the school is expected to add some delay to the study-area intersections during the peak 25 minutes before and after school. Movements at all of the study-area intersections are forecast to operate at LOS C or better with the project.

- The frontage improvements proposed along the south side of NE 117th Street would reduce the on-street parking capacity of that block face by an estimated 17 spaces (reduced from 37 angle spaces to 20 parallel spaces).

- The school is expected to generate a midday parking demand of about 71 vehicles; a net increase of about 46 vehicles. A small portion of the midday parking demand (9 vehicles) could be accommodated within the on-site parking lots; the remainder (about 62 vehicles) is expected to occur on-street along roadways near the school. This could increase on-street parking by 52 to 54 vehicles.

- Frontage improvements proposed along NE 117th Street would convert existing angle parking to parallel parking, reducing the on-street parking supply by about 17 spaces. With the reduction in supply, and the new overspill demand generated by the proposed project (56 vehicles), the on-street parking utilization near the school site is expected to increase to about 57% midday on school days. This increase can be accommodated within the site area, but would be noticeable to neighbors; especially those located close the school.

- During the evenings when large events are held at the school (expected to be once or twice per month at each school), on-street neighborhood parking demand is expected to increase and may be highly utilized (85% to >100%) and congested before and after events. The parking demand associated with events that have attendance of up to about 500 could be accommodated with on-site and on-street spaces north and west of Pinehurst Way NE.
Based on the above findings, the following measures are recommended to reduce the traffic and parking impacts associated with the Jane Addams K-8 School at Pinehurst project.

A. Prior to the building opening, the District and school should develop an access management plan to address congestion, pedestrian crossings, access patterns, and vehicle load/unload zones. The District and school should establish a communication plan to educate parents and students about the access and parking challenges that will exist. The effort should encourage school bus ridership, carpooling, and supervised walking (such as walking school buses) and should discourage parent-vehicle drop-off and pick-up activity. The plan should define clear procedures and travel routes for parent vehicles, school buses, pedestrian, and loading zones.

B. The District should work with SDOT to confirm the locations and signage of parent-vehicle load/unload zones (assumed to be along the south side NE 117th Street) and school-bus load/unload zones (assumed to be the east side 12th Avenue NE). The District should also work with SDOT to determine restrictions and signage for school-bus load/unload on Pinehurst Way NE and whether that curb-side lane could be made available for parking during off-peak hours.

C. The District should engage the Seattle School Safety Committee (of which SDOT is a member) to review walk routes and determine if any changes should be made to crosswalk locations, signage, pavement markings, school zone speed limits, or crossing guard locations.

D. The District should coordinate with SDOT and the Seattle Police Department to implement and enforce school-zone speed limits near the site.

E. The District should work to identify potential walk routes and coordinate with the City to identify potential improvements that could be funded through the City’s School Road Safety Initiative or other grand programs.

F. The District and school administration should develop a neighborhood communication plan to inform nearby neighbors of events each year. The plan should be updated annually (or as events are scheduled) and should provide information about the dates, times, and rough magnitude of attendance. The communication would be intended to allow neighbors to plan for the occasional increase in on-street parking demand that would occur with large events.

G. The school should develop transportation and parking management plans for both weekday arrival and dismissal activities as well as large events to minimize the associated traffic and parking impacts. For large events, the District could explore options for shared parking with compatible uses, such as the Seattle First Korean Church at 11508 Roosevelt Way NE (about 600 feet southwest of the school site).

H. For events that are expected to draw more than 500 attendees, the school should consider altering the events to reduce the attendance (such as by splitting the events) or relocating the events to an alternative location that has parking capacity to accommodate the demand.

I. The District should require the selected contractor to develop a construction management plan (CMP) that addresses traffic and pedestrian control during school construction. It should define truck routes, lane closures, walkway closures, and parking disruptions, as necessary. To the extent possible, the CMP should direct trucks along the shortest route to arterials and away from residential streets to avoid unnecessary conflicts with resident and pedestrian activity. The CMP may also include measures to keep adjacent streets clean on a daily basis at the truck exit points (such as street sweeping or on-site truck wheel cleaning) to reduce tracking dirt offsite. The CMP should identify parking locations for the construction staff; to the extent possible, construction employee parking should be contained on-site.
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* (Transportation Research Board, 2010).

For unsignalized intersections, level of service is based on the average delay per vehicle for each turning movement. The level of service for a two-way, stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. 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 2010*.

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Average Delay (seconds per vehicle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Less than 10.0</td>
</tr>
<tr>
<td>B</td>
<td>10.1 to 15.0</td>
</tr>
<tr>
<td>C</td>
<td>15.1 to 25.0</td>
</tr>
<tr>
<td>D</td>
<td>25.1 to 35.0</td>
</tr>
<tr>
<td>E</td>
<td>35.1 to 50.0</td>
</tr>
<tr>
<td>F</td>
<td>Greater than 50.0</td>
</tr>
</tbody>
</table>

APPENDIX B
Parking Utilization Study Data
<table>
<thead>
<tr>
<th>Block Face ID</th>
<th>Street Name</th>
<th>Street Segment</th>
<th>Side of Street</th>
<th>Number of Unrestricted Parallel Parking Spaces</th>
<th>Number of Unrestricted Angle Parking Spaces</th>
<th>School Bus Only 7 - 9 am Except</th>
<th>No Parking 7am - 9 pm Sat Sun Hol</th>
<th>No Parking 3 - 7 pm Except</th>
<th>Load/Unload 9 am - 6 pm No Parking 7am - 9 pm Except</th>
<th>Total Legal On-Street Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>12th Avenue NE</td>
<td>800' point and NE 120th St</td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AB</td>
<td>12th Avenue NE</td>
<td>800' point and NE 120th St</td>
<td>E</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>AC</td>
<td>15th Avenue NE</td>
<td>800' point and NE 120th St</td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AD</td>
<td>15th Avenue NE</td>
<td>800' point and NE 120th St</td>
<td>E</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AE</td>
<td>NE 120th Street</td>
<td>800' point and 12th Ave NE</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AF</td>
<td>NE 120th Street</td>
<td>800' point and 12th Ave NE</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AG</td>
<td>NE 120th Street</td>
<td>12th Ave NE and 800' point</td>
<td>N</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AH</td>
<td>NE 120th Street</td>
<td>12th Ave NE and 800' point</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AI</td>
<td>NE 120th Street</td>
<td>800' point and 15th Ave NE</td>
<td>N</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>AJ</td>
<td>NE 120th Street</td>
<td>800' point and 15th Ave NE</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AK</td>
<td>NE 120th Street</td>
<td>15th Ave NE and 800' point</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AL</td>
<td>NE 120th Street</td>
<td>15th Ave NE and 800' point</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AM</td>
<td>15th Avenue NE</td>
<td>Pinehurst Wy NE and NE 120th St</td>
<td>E</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>AN</td>
<td>Pinehurst Way NE</td>
<td>15th Ave NE and NE 120th St</td>
<td>W</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>AO</td>
<td>Pinehurst Way NE</td>
<td>15th Ave NE and NE 120th St</td>
<td>E</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>AP</td>
<td>Roosevelt Way NE</td>
<td>800' point and NE 117th St</td>
<td>W</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>AQ</td>
<td>Roosevelt Way NE</td>
<td>800' point and NE 117th St</td>
<td>E</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>AR</td>
<td>12th Avenue NE</td>
<td>NE 120th St and NE 117th St</td>
<td>W</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>AS</td>
<td>12th Avenue NE</td>
<td>NE 120th St and NE 117th St</td>
<td>E</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>AT</td>
<td>15th Avenue NE</td>
<td>NE 120th St and NE 117th St</td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>AU</td>
<td>16th Avenue NE</td>
<td>800' point and NE 117th St</td>
<td>W</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>AV</td>
<td>16th Avenue NE</td>
<td>800' point and NE 117th St</td>
<td>E</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>AW</td>
<td>NE 117th Street</td>
<td>800' point and Roosevelt Wy NE</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AX</td>
<td>NE 117th Street</td>
<td>800' point and Roosevelt Wy NE</td>
<td>S</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>AY</td>
<td>NE 117th Street</td>
<td>Roosevelt Wy NE and 12th Ave NE</td>
<td>N</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>AZ</td>
<td>NE 117th Street</td>
<td>Roosevelt Wy NE and 12th Ave NE</td>
<td>S</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>BA</td>
<td>NE 117th Street</td>
<td>12th Ave NE and Pinehurst Wy NE</td>
<td>N</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>BB</td>
<td>NE 117th Street</td>
<td>12th Ave NE and Pinehurst Wy NE</td>
<td>S</td>
<td>0</td>
<td>37</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>37</td>
</tr>
<tr>
<td>BC</td>
<td>NE 117th Street</td>
<td>15th Ave NE and 16th Ave NE</td>
<td>N</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BD</td>
<td>NE 117th Street</td>
<td>15th Ave NE and 16th Ave NE</td>
<td>S</td>
<td>2</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>BE</td>
<td>NE 117th Street</td>
<td>16th Ave NE and 17th Ave NE</td>
<td>N</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>BF</td>
<td>NE 117th Street</td>
<td>16th Ave NE and 17th Ave NE</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BG</td>
<td>Roosevelt Way NE</td>
<td>NE 117th St and 800' point</td>
<td>W</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>BH</td>
<td>Roosevelt Way NE</td>
<td>NE 117th St and 800' point</td>
<td>E</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>BI</td>
<td>12th Avenue NE</td>
<td>NE 117th St and Non-County Road</td>
<td>W</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>BJ</td>
<td>12th Avenue NE</td>
<td>NE 117th St and NE 115th St</td>
<td>E</td>
<td>6</td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>BK</td>
<td>12th Avenue NE</td>
<td>Non-County Road and NE 115th St</td>
<td>W</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>BL*</td>
<td>Pinehurst Way NE</td>
<td>NE 117th St and NE 115th St</td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Block Face ID</td>
<td>Street Name</td>
<td>Street Segment</td>
<td>Side of Street</td>
<td>Number of Unrestricted Parallel Parking Spaces</td>
<td>Number of Unrestricted Angle Parking Spaces</td>
<td>School Bus Only 7 - 9 am Except 2 - 4 pm</td>
<td>No Parking 7am - 9 pm Except Sat Sun Hol</td>
<td>No Parking 3 - 7 pm Except Sat Sun Hol</td>
<td>Load/Unload 9 am - 6 pm No Parking 7 am - 9 pm Except Sat Sun Hol</td>
<td>Total Legal On-Street Spaces</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------</td>
<td>------------------------</td>
<td>----------------</td>
<td>-----------------------------------------------</td>
<td>---------------------------------------------</td>
<td>------------------------------------------</td>
<td>----------------------------------------</td>
<td>-----------------------------------------</td>
<td>------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>BM</td>
<td>Pinehurst Way NE</td>
<td>NE 117th St and NE 115th St</td>
<td>E</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>BN</td>
<td>15th Avenue NE</td>
<td>NE 117th St and NE 115th St</td>
<td>W</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>BO</td>
<td>15th Avenue NE</td>
<td>NE 117th St and NE 115th St</td>
<td>E</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BP</td>
<td>16th Avenue NE</td>
<td>NE 117th St and NE 115th St</td>
<td>W</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>BQ</td>
<td>16th Avenue NE</td>
<td>NE 117th St and NE 115th St</td>
<td>E</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>BR</td>
<td>Roosevelt Way NE</td>
<td>800' point and NE 115th St</td>
<td>W</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BS</td>
<td>Roosevelt Way NE</td>
<td>800' point and NE 115th St</td>
<td>E</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BT</td>
<td>NE 115th Street</td>
<td>Roosevelt Wy NE and 12th Ave NE</td>
<td>N</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BU</td>
<td>NE 115th Street</td>
<td>Roosevelt Wy NE and 12th Ave NE</td>
<td>S</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>BV</td>
<td>NE 115th Street</td>
<td>12th Ave NE and 15th Ave NE</td>
<td>N</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BW</td>
<td>NE 115th Street</td>
<td>12th Ave NE and 14th Ave NE</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>BX</td>
<td>NE 115th Street</td>
<td>14th Ave NE and 15th Ave NE</td>
<td>S</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>BY</td>
<td>NE 115th Street</td>
<td>15th Ave NE and 16th Ave NE</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>BZ</td>
<td>NE 115th Street</td>
<td>15th Ave NE and 16th Ave NE</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>CA</td>
<td>Roosevelt Way NE</td>
<td>NE 115th St and 800' point</td>
<td>W</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CB</td>
<td>Roosevelt Way NE</td>
<td>NE 115th St and 800' point</td>
<td>E</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CC</td>
<td>Pinehurst Way NE</td>
<td>NE 115th St and NE 114th St</td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>CD</td>
<td>Pinehurst Way NE</td>
<td>NE 115th St and NE 114th St</td>
<td>E</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>CE</td>
<td>12th Avenue NE</td>
<td>NE 115th St and NE 114th St</td>
<td>W</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>CF</td>
<td>12th Avenue NE</td>
<td>NE 115th St and NE 113th St</td>
<td>E</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>CG</td>
<td>14th Avenue NE</td>
<td>NE 115th St and 800' point</td>
<td>W</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>CH</td>
<td>14th Avenue NE</td>
<td>NE 115th St and 800' point</td>
<td>E</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>CI</td>
<td>15th Avenue NE</td>
<td>NE 115th St and 800' point</td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>CJ</td>
<td>15th Avenue NE</td>
<td>NE 115th St and 800' point</td>
<td>E</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>CK</td>
<td>NE 114th Street</td>
<td>Roosevelt Wy NE and Pinehurst Wy NE</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>CL</td>
<td>NE 114th Street</td>
<td>Roosevelt Wy NE and Pinehurst Wy NE</td>
<td>S</td>
<td>0</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>CM</td>
<td>Pinehurst Way NE</td>
<td>NE 114th St and NE 113th St</td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>CN</td>
<td>NE 114th Street</td>
<td>Pinehurst Wy NE and 12th Ave NE</td>
<td>N</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>NE 114th Street</td>
<td>Pinehurst Wy NE and 12th Ave NE</td>
<td>S</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>CP</td>
<td>Pinehurst Way NE</td>
<td>NE 114th St and NE 113th St</td>
<td>E</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>CQ</td>
<td>12th Avenue NE</td>
<td>NE 114th St and NE 113th St</td>
<td>W</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>NE 113th Street</td>
<td>800' point and 12th Ave NE</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>NE 113th Street</td>
<td>800' point and 12th Ave NE</td>
<td>S</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL 287 64 11 20 52 1 435

* Parking for school buses only from 3:00 - 4:00 pm
<table>
<thead>
<tr>
<th>Block Face ID</th>
<th>Street Name</th>
<th>Street Segment</th>
<th>Side of Street</th>
<th>Total Legal On-Street Spaces</th>
<th>Mid-Morning Counts</th>
<th>Evening Counts</th>
<th>Weekend Counts</th>
<th>Average</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11:00 am - 12:00 pm</td>
<td>7:30 - 8:30 pm</td>
<td>12:00 pm - 1:00 pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AA</td>
<td>12th Avenue NE</td>
<td>800' point and NE 120th St</td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AB</td>
<td>12th Avenue NE</td>
<td>800' point and NE 120th St</td>
<td>E</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AC</td>
<td>15th Avenue NE</td>
<td>800' point and NE 120th St</td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AD</td>
<td>15th Avenue NE</td>
<td>800' point and NE 120th St</td>
<td>E</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AE</td>
<td>NE 120th Street</td>
<td>800' point and 12th Ave NE</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AF</td>
<td>NE 120th Street</td>
<td>800' point and 12th Ave NE</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AG</td>
<td>NE 120th Street</td>
<td>12th Ave NE and 800' point</td>
<td>N</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>AH</td>
<td>NE 120th Street</td>
<td>12th Ave NE and 800' point</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AI</td>
<td>NE 120th Street</td>
<td>800' point and 15th Ave NE</td>
<td>N</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>AJ</td>
<td>NE 120th Street</td>
<td>800' point and 15th Ave NE</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AK</td>
<td>NE 120th Street</td>
<td>15th Ave NE and 800' point</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AL</td>
<td>NE 120th Street</td>
<td>15th Ave NE and 800' point</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AM</td>
<td>15th Avenue NE</td>
<td>Pinehurst Wy NE and NE 120th St</td>
<td>E</td>
<td>10</td>
<td>2</td>
<td>0</td>
<td>9</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>AN</td>
<td>Pinehurst Way NE</td>
<td>15th Ave NE and NE 120th St</td>
<td>W</td>
<td>12</td>
<td>8</td>
<td>12</td>
<td>10</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>AO</td>
<td>Pinehurst Way NE</td>
<td>15th Ave NE and NE 120th St</td>
<td>E</td>
<td>8</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>AP</td>
<td>Roosevelt Way NE</td>
<td>800' point and NE 117th St</td>
<td>W</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AQ</td>
<td>Roosevelt Way NE</td>
<td>800' point and NE 117th St</td>
<td>E</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AR</td>
<td>12th Avenue NE</td>
<td>NE 120th St and NE 117th St</td>
<td>W</td>
<td>16</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>AS</td>
<td>12th Avenue NE</td>
<td>NE 120th St and NE 117th St</td>
<td>E</td>
<td>13</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AT</td>
<td>15th Avenue NE</td>
<td>NE 120th St and NE 117th St</td>
<td>W</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>6</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>AU</td>
<td>16th Avenue NE</td>
<td>800' point and NE 117th St</td>
<td>W</td>
<td>9</td>
<td>6</td>
<td>6</td>
<td>10</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>AV</td>
<td>16th Avenue NE</td>
<td>800' point and NE 117th St</td>
<td>E</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>AW</td>
<td>NE 117th Street</td>
<td>800' point and Roosevelt Wy NE</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AX</td>
<td>NE 117th Street</td>
<td>800' point and Roosevelt Wy NE</td>
<td>S</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>AY</td>
<td>NE 117th Street</td>
<td>Roosevelt Wy NE and 12th Ave NE</td>
<td>N</td>
<td>12</td>
<td>5</td>
<td>3</td>
<td>7</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>AZ</td>
<td>NE 117th Street</td>
<td>Roosevelt Wy NE and 12th Ave NE</td>
<td>S</td>
<td>12</td>
<td>4</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>BA</td>
<td>NE 117th Street</td>
<td>12th Ave NE and Pinehurst Wy NE</td>
<td>N</td>
<td>12</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>BB</td>
<td>NE 117th Street</td>
<td>12th Ave NE and Pinehurst Wy NE</td>
<td>S</td>
<td>37</td>
<td>10</td>
<td>15</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>BC</td>
<td>NE 117th Street</td>
<td>15th Ave NE and 16th Ave NE</td>
<td>N</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>BD</td>
<td>NE 117th Street</td>
<td>15th Ave NE and 16th Ave NE</td>
<td>S</td>
<td>11</td>
<td>10</td>
<td>12</td>
<td>10</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>BE</td>
<td>NE 117th Street</td>
<td>16th Ave NE and 17th Ave NE</td>
<td>N</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>BF</td>
<td>NE 117th Street</td>
<td>16th Ave NE and 17th Ave NE</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BG</td>
<td>Roosevelt Way NE</td>
<td>NE 117th St and 800' point</td>
<td>W</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>BH</td>
<td>Roosevelt Way NE</td>
<td>NE 117th St and 800' point</td>
<td>E</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BI</td>
<td>12th Avenue NE</td>
<td>NE 117th St and Non-County Road</td>
<td>W</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>BJ</td>
<td>12th Avenue NE</td>
<td>NE 117th St and NE 115th St</td>
<td>E</td>
<td>17</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>BK</td>
<td>12th Avenue NE</td>
<td>Non-County Road and NE 115th St</td>
<td>W</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>BL</td>
<td>Pinehurst Way NE</td>
<td>NE 117th St and NE 115th St</td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Heffron Transportation, Inc.
<table>
<thead>
<tr>
<th>Block Face ID</th>
<th>Street Name</th>
<th>Street Segment</th>
<th>Side of Street</th>
<th>Total Legal On-Street Spaces</th>
<th>Mid-Morning Counts 11:00 am - 12:00 pm</th>
<th>Evening Counts 7:30 - 8:30 pm</th>
<th>Weekend Counts 12:07.13 - 12:30 pm</th>
<th>Average</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Thurs 12.05.13</td>
<td>Tues 12.10.13</td>
<td>Sat 12:07.13</td>
<td>Mid-Morning</td>
<td>Evening</td>
</tr>
<tr>
<td>BM</td>
<td>Pinehurst Way NE</td>
<td>NE 117th St and NE 115th St</td>
<td>E</td>
<td>24</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BN</td>
<td>15th Avenue NE</td>
<td>NE 117th St and NE 115th St</td>
<td>W</td>
<td>9</td>
<td>4</td>
<td>7</td>
<td>10</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>BG</td>
<td>15th Avenue NE</td>
<td>NE 117th St and NE 115th St</td>
<td>E</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>BP</td>
<td>16th Avenue NE</td>
<td>NE 117th St and NE 115th St</td>
<td>W</td>
<td>12</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>BQ</td>
<td>16th Avenue NE</td>
<td>NE 117th St and NE 115th St</td>
<td>E</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>BR</td>
<td>Roosevelt Way NE</td>
<td>800' point and NE 115th St</td>
<td>W</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>BS</td>
<td>Roosevelt Way NE</td>
<td>800' point and NE 115th St</td>
<td>E</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>BT</td>
<td>NE 115th Street</td>
<td>Roosevelt Wy NE and 12th Ave NE</td>
<td>N</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>BU</td>
<td>NE 115th Street</td>
<td>Roosevelt Wy NE and 12th Ave NE</td>
<td>S</td>
<td>10</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>BV</td>
<td>NE 115th Street</td>
<td>12th Ave NE and 15th Ave NE</td>
<td>N</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>BW</td>
<td>NE 115th Street</td>
<td>12th Ave NE and 14th Ave NE</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BX</td>
<td>NE 115th Street</td>
<td>14th Ave NE and 15th Ave NE</td>
<td>S</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BY</td>
<td>NE 115th Street</td>
<td>15th Ave NE and 16th Ave NE</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BZ</td>
<td>NE 115th Street</td>
<td>15th Ave NE and 16th Ave NE</td>
<td>S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CA</td>
<td>Roosevelt Way NE</td>
<td>NE 115th St and 800' point</td>
<td>W</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>CB</td>
<td>Roosevelt Way NE</td>
<td>NE 115th St and 800' point</td>
<td>E</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>CC</td>
<td>Pinehurst Way NE</td>
<td>NE 115th St and NE 114th St</td>
<td>W</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CD</td>
<td>Pinehurst Way NE</td>
<td>NE 115th St and NE 114th St</td>
<td>E</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CE</td>
<td>12th Avenue NE</td>
<td>NE 115th St and NE 114th St</td>
<td>W</td>
<td>11</td>
<td>7</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>CF</td>
<td>12th Avenue NE</td>
<td>NE 115th St and NE 113th St</td>
<td>E</td>
<td>18</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>CG</td>
<td>14th Avenue NE</td>
<td>NE 115th St and 800' point</td>
<td>W</td>
<td>15</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>CH</td>
<td>14th Avenue NE</td>
<td>NE 115th St and 800' point</td>
<td>E</td>
<td>14</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>CI</td>
<td>15th Avenue NE</td>
<td>NE 115th St and 800' point</td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CJ</td>
<td>15th Avenue NE</td>
<td>NE 115th St and 800' point</td>
<td>E</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CK</td>
<td>NE 114th Street</td>
<td>Roosevelt Wy NE and Pinehurst Wy</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CL</td>
<td>NE 114th Street</td>
<td>Roosevelt Wy NE and Pinehurst Wy</td>
<td>S</td>
<td>14</td>
<td>11</td>
<td>14</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>CM</td>
<td>Pinehurst Way NE</td>
<td>NE 114th St and NE 113th St</td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CN</td>
<td>NE 114th Street</td>
<td>Pinehurst Wy NE and 12th Ave NE</td>
<td>N</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CO</td>
<td>NE 114th Street</td>
<td>Pinehurst Wy NE and 12th Ave NE</td>
<td>S</td>
<td>10</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>CP</td>
<td>Pinehurst Way NE</td>
<td>NE 114th St and NE 113th St</td>
<td>E</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CQ</td>
<td>12th Avenue NE</td>
<td>NE 114th St and NE 113th St</td>
<td>W</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>CR</td>
<td>NE 113th Street</td>
<td>800' point and 12th Ave NE</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CS</td>
<td>NE 113th Street</td>
<td>800' point and 12th Ave NE</td>
<td>S</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>435</strong></td>
<td><strong>135</strong></td>
<td><strong>146</strong></td>
<td><strong>160</strong></td>
<td><strong>134</strong></td>
<td><strong>146</strong></td>
</tr>
</tbody>
</table>

* Parking for school buses only from 3:00 - 4:00 pm
<table>
<thead>
<tr>
<th>Comment No.</th>
<th>Comment</th>
<th>Response</th>
<th>Document Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jen</td>
<td>I am responding to your notice inviting comments on the Jane Addams K-8 at Pinehurst school environmental Checklist, with written comments requested by Monday May 19, 2014. I ask the District provide further detailed environmental review through an Environmental Impact Statement (EIS)</td>
<td>Thank you for your comment. Seattle Public Schools is taking your comment into consideration.</td>
<td>N/A</td>
</tr>
<tr>
<td>Wong</td>
<td>I am responding to your notice inviting comments on the Jane Addams K-8 at Pinehurst school environmental Checklist, with written comments requested by Monday May 19, 2014. I ask the District provide further detailed environmental review through an Environmental Impact Statement (EIS)</td>
<td>Thank you for your comment. Seattle Public Schools is taking your comment into consideration.</td>
<td>N/A</td>
</tr>
<tr>
<td>Cooney</td>
<td>I am responding to your notice inviting comments on the Jane Addams K-8 at Pinehurst school environmental Checklist, with written comments requested by Monday May 19, 2014. I ask the District provide further detailed environmental review through an Environmental Impact Statement (EIS)</td>
<td>Thank you for your comment. Seattle Public Schools is taking your comment into consideration.</td>
<td>N/A</td>
</tr>
<tr>
<td>Madis</td>
<td>I am responding to your notice inviting comments on the Jane Addams K-8 at Pinehurst school environmental Checklist, with written comments requested by Monday May 19, 2014. I ask the District provide further detailed environmental review through an Environmental Impact Statement (EIS)</td>
<td>Thank you for your comment. Seattle Public Schools is taking your comment into consideration.</td>
<td>N/A</td>
</tr>
<tr>
<td>Comment No.</td>
<td>Comment</td>
<td>Response</td>
<td>Document Reference</td>
</tr>
<tr>
<td>-------------</td>
<td>---------</td>
<td>----------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Geiger General Comment #5 (Card)</td>
<td>I am responding to your notice inviting comments on the Jane Addams K-8 at Pinehurst school environmental Checklist, with written comments requested by Monday May 19, 2014. I ask the District provide further detailed environmental review through an Environmental Impact Statement (EIS)</td>
<td>Thank you for your comment. Seattle Public Schools is taking your comment into consideration.</td>
<td>N/A</td>
</tr>
<tr>
<td>Adawe General Comment #6 (Card)</td>
<td>I am responding to your notice inviting comments on the Jane Addams K-8 at Pinehurst school environmental Checklist, with written comments requested by Monday May 19, 2014. I ask the District provide further detailed environmental review through an Environmental Impact Statement (EIS)</td>
<td>Thank you for your comment. Seattle Public Schools is taking your comment into consideration.</td>
<td>N/A</td>
</tr>
<tr>
<td>Ceo General Comment #7 (Card)</td>
<td>I am responding to your notice inviting comments on the Jane Addams K-8 at Pinehurst school environmental Checklist, with written comments requested by Monday May 19, 2014. I ask the District provide further detailed environmental review through an Environmental Impact Statement (EIS)</td>
<td>Thank you for your comment. Seattle Public Schools is taking your comment into consideration.</td>
<td>N/A</td>
</tr>
<tr>
<td>Jackins 5/14 1</td>
<td>The District should issue a Determination of Significance (DS) for the project and provide further detailed environmental review through an Environmental Impact Statement (EIS). I believe that this project has probable significant adverse environmental impacts, and therefore SEPA regulations require a DS and as EIS.</td>
<td>Thank you for your comment. Seattle Public Schools is taking your comment into consideration.</td>
<td>N/A</td>
</tr>
<tr>
<td>Comment No.</td>
<td>Comment</td>
<td>Response</td>
<td>Document Reference</td>
</tr>
<tr>
<td>-------------</td>
<td>---------</td>
<td>----------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Jackins 5/14 2</td>
<td><strong>The District is seeking inappropriate departures from City zoning that will harm safety and the neighborhood.</strong>&lt;br&gt;A. The buildings would be higher than by City Code&lt;br&gt;B. The new school would provide less on-site parking than is required by City Code&lt;br&gt;C. The lot coverage would be greater than allowed by City Code&lt;br&gt;D. School buses would violate City Code requirements to load and unload on-site (on-site bus loading is safer and required by Code) and would be instead load and unload on the street</td>
<td>The District is asking the Seattle Department of Neighborhoods for a departure from the current zoning code to allow for increased lot coverage, greater than allowed height, less than required on-site parking spaces, and on-street bus loading. The departure process is separate from the SEPA decision process and is outside the scope of this environmental review.</td>
<td>N/A</td>
</tr>
<tr>
<td>Jackins 5/14 3</td>
<td><strong>The School District inappropriately “loaded the dice” in seeking approval of departures from City zoning.</strong>&lt;br&gt;A. City regulations require that departures from zoning code only be granted through a process that balances the need for departures against the impacts on the neighborhood.&lt;br&gt;B. There was no way for the public and the Departures committee to fairly balance the impacts because the District only published the Environmental Checklist AFTER the Departures Committee was held. The departures Committee voted on Monday April 28, 2014: the Environmental Checklist was not released by the District until after April 28, 2014 (even though the Checklist was signed on April 15, 2014). We believe that the departures process must be rerun from scratch</td>
<td>See response to Comment Jackins 5/14, 2.</td>
<td>N/A</td>
</tr>
<tr>
<td>Comment No.</td>
<td>Comment</td>
<td>Response</td>
<td>Document Reference</td>
</tr>
<tr>
<td>-------------</td>
<td>---------</td>
<td>----------</td>
<td>--------------------</td>
</tr>
</tbody>
</table>
| Jackins 5/14 4 | At the time of the final Departure Committee meeting, the District had not disclosed:  
A. While school parking demand will INCREASE, school on-site parking will DECREASE. There are 33 parking spaces on the site currently. The proposed project would “eliminate” about 24 on-site parking spaces. [Page 21, Checklist]  
B. There will be probable significant adverse impacts from parking. “Large events that attract 500 attendees or more to the site at one time would likely cause the on-street parking utilization within 800 feet of the school and north and west of Pinehurst Way to exceed 85% which is generally considered full by the City of Seattle.” [page 30, Traffic Impact Analysis, Appendix C, Checklist]  
C. There will be large traffic increases. “The new school is projected to generate a net increase of 335 trips during the morning peak hours and 210 trips during the afternoon peak hour.” [page 32, Traffic Impact Analysis, Appendix C, Checklist]  
D. The State has classified “the project location as High Risk for archeological [Native] resources”. [page 18, Checklist] we believe that the Duwamish Tribe should be formally advised of any risk to Native archeological resources on the site, and should be invited to send observers prior to the digging of any archeological trenches.  
E. Ten of a total of 27 “significant” trees (six inches or more in diameter) will be removed. [page 9, Checklist]  
F. The Particular Exceptional Tree to be removed (one of only four on site) is A 20-inch shore pine. [page 9, Checklist]  
G. The District is incorrectly basing its school design on the assumption that there will be no change in... | A. See Section B.14.c of the SEPA Checklist.  
B. See Sections B.14.c & g of the SEPA Checklist. In addition, SPS is coordinating with nearby businesses to arrange for potential use of parking facilities during evening school events.  
C. See Section B.14.f of the SEPA Checklist.  
D. There is no requirement under SEPA to formally consult with the tribes. If the site survey determines that there are archaeological resources present, SPS will consult with the Duwamish and other potentially affected tribes at that time.  
E. See Sections B.4.b & d of the SEPA Checklist.  
F. See Sections B.4.b & d of the SEPA Checklist.  
G. See Section B.7.b.2 of the SEPA Checklist.  
See also response to Comment Jackins 5/14, 2. | B.14.c  
B.14.g  
B.14.f  
B.13.c  
B.4.b  
B.4.d  
B.7.b.2 |
<table>
<thead>
<tr>
<th>Comment No.</th>
<th>Comment</th>
<th>Response</th>
<th>Document Reference</th>
</tr>
</thead>
</table>
| Jackins 5/14 4 (Cont’d) | **Long-term noise.** The Check states “*Long-term noise from the project site would be typical of school facilities and similar to the existing conditions.*” [page12, Checklist] However, there will be over three times as many students at the proposed school: 190 students in 2013, and 680 students at the new school. [pages21,32, Traffic Impact Analysis C, Checklist] | Long-term, the expanded enrollment at the new school would cause an increase in noise during daytime hours. The final design of the project would be required to comply with SMC 23.45.570(F)(4) for public institutions in residential zones by placing the following features and equipment at least 20 feet from any abutting residentially zoned lot:  
- Outdoor play equipment and game courts  
- Operable windows of gymnasiums or assembly halls  
- Kitchen ventilation equipment  
- Air conditioning or heating mechanisms  
- Any similar mechanisms and features causing noise and/or odors as determined by the Director of DPD.  

See also additions to Section B.7.b.2 of the SEPA Checklist. | B.7.b.2 |