

ADDENDUM

to the

Seattle Pacific University

Major Institution Master Plan EIS

prepared for

Ashton Parking Lot Expansion

Project No. 3009946



February 2012

City of Seattle Department of Planning and Development

ADDENDUM

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Seattle Pacific University

Major Institution Master Plan *EIS*

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Ashton Parking Lot Expansion

Master Use Permit Project #3009946

City of Seattle

Department of Planning & Development

This EIS Addendum has been prepared in compliance with the State Environmental Policy Act of 1971 (Chapter 43.21C, Revised Code of Washington), as well as: the SEPA Rules, effective April 4, 1984, as amended (Chapter 197-11, Washington Administrative Code); and Seattle’s Environmental Policies and Procedures Code (Chapter 25.05, City of Seattle Municipal Code), which implement SEPA. The Seattle Department of Planning and Development has determined that this document has been prepared in a responsible manner using appropriate methodology and DPD has directed the areas of research and analysis that were undertaken in preparation of this document.

Date of Issuance of this EIS Addendum February 2, 2012

Date Comments are Due on the EIS Addendum February 17, 2012

PREFACE

The purpose of this EIS Addendum is to provide information concerning site-specific development that is proposed as the **Ashton Parking Lot Expansion**.

This EIS Addendum is consistent with and supports the analysis contained in Seattle Pacific University's *Major Institution Master Plan* (MIMP) EIS. The Department of Design, Construction & Land Use (DCLU)¹ issued a Draft Environmental Impact Statement (DEIS)² for the University's MIMP in May 1999 and the Final Environmental Impact Statement (FEIS)³ for the project was issued in September 1999. That EIS, collectively referred to in this EIS Addendum as the "MIMP EIS," is largely a non-project specific document that identifies and evaluates probable, significant environmental impacts that may result from a range of alternatives and addresses the entire campus area.

This EIS Addendum has been prepared to accompany the proposed **Ashton Parking Lot Expansion** through the MUP process and be considered by City officials in making the necessary permitting/approval decisions. This EIS Addendum is not an authorization for an action, nor does it constitute a decision or a recommendation for action.

An EIS addendum is an environmental document that provides additional analysis or information about a proposal, but does not substantially change the analysis of significant environmental impacts and alternatives in the existing environmental document⁴ (i.e., the MIMP EIS). Since probable significant environmental impacts of additional, on-campus parking have already been adequately evaluated as part of the MIMP EIS, the purpose of this EIS Addendum is to provide additional, more-detailed analysis and information regarding the site-specific **Ashton Parking Lot Expansion**.

This EIS Addendum is organized into three major sections. The *Fact Sheet* (starting on page *i*) provides an overview of the proposed project and location, permits required, and points of contact; *Section I* (beginning on page 1) is a comprehensive description of the *Proposed Action*; and *Section II* (page 14) contains an analysis of environmental impacts associated with the *Proposed Action* compared with those described in the MIMP EIS.

¹ now known as the Department of Planning and Development (DPD)

² Seattle, 1999a.

³ Seattle, 1999b.

⁴ Seattle Municipal Code 25.05.600D.3

FACT SHEET

Name of Proposal	Ashton Parking Lot Expansion
Proponent	Seattle Pacific University
Location	The <i>Proposed Action</i> is located on the campus of Seattle Pacific University, which is on the north-end of Seattle's Queen Anne Hill. More specifically, the site is on the southwest corner of the campus and is bounded by 5 th Ave. W. on the east and north, and W. Barrett St. on the south.
Proposed Action	<p>The <i>Proposed Action</i> would involve development of a surface parking lot with 100 spaces for resident students of Seattle Pacific University (net increase of 68 spaces). The parking lot would comprise approximately 30,000 gross sq.ft. of paved surface area.</p> <p>The project site presently contains four vacant duplexes, 32 surface parking spaces and the vacated W. Etruria St.</p> <p>Site construction of the <i>Proposed Action</i> is anticipated to begin prior to construction of the University Center project, and would be expected to be completed within approximately three months.</p>
SEPA Lead Agency	City of Seattle, Department of Planning & Development
Responsible Official	Diane Sugimura , Director City of Seattle, Department of Planning & Development Seattle Municipal Tower – 700 Fifth Ave., Suite 2000 P.O. Box 34019 Seattle, WA 98124-4019
Contact Person	Colin Vasquez , Senior Land Use Planner Department of Planning & Development Seattle Municipal Tower – 700 Fifth Ave., Suite 2000 P.O. Box 34019 Seattle, WA 98124-4019 <u>Telephone</u> : 206-684-5639 <u>Fax</u> : 206-233-7902 <u>E-Mail</u> : colin.vasquez@seattle.gov
Addendum/Adoption of Original Document	This EIS Addendum provides additional site-specific information and analysis concerning the proposed Ashton Parking Lot Expansion , but does not substantially change the analysis of significant impacts and alternatives that are described in Seattle Pacific University's <i>Major Institution Master Plan</i> EIS. The Draft and Final EISs for the Seattle Pacific University <i>Major Institution Master Plan</i> are adopted for purposes of SEPA compliance,

pursuant to WAC 197-11-630 and the City of Seattle SEPA regulations.

Master Use Permit

DPD MUP No.: **3009946**

Required Approvals

It is expected that the following permits and/or approvals would be required for the *Proposed Action*. Additional permits/approvals may be identified during the review process.

City of Seattle

Department of Planning & Development

Permits/approvals associated with the proposed project, including:

- Master Use Permit – (including Zoning Review and SEPA Compliance⁵)
- Grading Permit
- Electrical Permit
- Comprehensive Drainage Control Plan approval
- Large-Parcel Drainage Control Plan with Construction Best Management Practices, Erosion and Sediment Control Approval

Seattle Department of Neighborhoods

- Seattle Pacific University Standing Advisory Committee -- Project Review

Puget Sound Clean Air Agency

- Notice of Intent – associated with demolition of existing buildings on-site
- Demolition Permit
- Asbestos Survey (required in conjunction with building demolition & abatement)

Authors and Principal Contributors to this EIS Addendum

This proposed *Ashton Parking Lot Expansion* EIS Addendum has been prepared under the direction of the City of Seattle Department of Planning and Development. Research and analysis were provided by the following consulting firms:

- **EA | Blumen** – lead environmental consultant; project management; document compilation; analysis relative to: land use, aesthetics, climate change, and construction impacts;
- **Hammond Collier Wade Livingstone** – parking lot design and landscaping;
- **The Johnson Partnership** – historical analysis; and
- **Transpo Group** – traffic and parking analysis.

⁵ Approval and issuance of the EIS Addendum must occur prior to final zoning approval.

**Location of
Background Data**

**City of Seattle
Department of Planning & Development**
Seattle Municipal Tower
700 Fifth Ave., Suite 2000
Seattle, WA 98104-7195

EA I Blumen
720 Sixth St. S., Suite 100
Kirkland, WA 98033
(425) 284-5401

**Date of Issuance of
this EIS Addendum**

February 2, 2012

**Date Comments Due on
this EIS Addendum**

February 17, 2012

**Date of Issuance of the
*Seattle Pacific Univ.
Major Institution
Master Plan EIS***

Final EIS – September 30, 1999

Draft EIS -- May 6, 1999

**Availability/Cost of
EIS Addendum**

Notification of the availability of this EIS Addendum has been distributed to agencies, organizations and individuals noted in the *Distribution/Notification List* (*Appendix A* of this EIS Addendum).

Copies of this EIS Addendum are also available for review at the City of Seattle Department of Planning and Development Public Resource Center, which is located in Suite 2000 of the Seattle Municipal Tower in Downtown Seattle (700 Fifth Ave.) and at the following libraries

- Seattle Public Library – Central Library (1000 Fourth Ave.);
- Seattle Public Library – Queen Anne Branch (400 W. Garfield St.);
- Seattle Public Library – Fremont Branch (731 N. 35th St.); and the
- Seattle Pacific University Library.

A limited number of complimentary cd's of this EIS Addendum may be obtained from the Department of Planning and Development Public Resource Center, while supplies last. Additional copies may be purchased at the Department of Planning and Development Public Resource Center for the cost of reproduction.

The Seattle Pacific University *Major Institution Master Plan EIS* is available for review at the Seattle Department of Planning and Development Public Resource Center, which is located in Suite 2000 of the Seattle Municipal Tower (700 Fifth Ave.), at the Seattle Public Library – Central Library (1000 Fourth Ave.) and at the Seattle Pacific University Library.

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SECTION I

PROJECT DESCRIPTION

SECTION I

PROJECT DESCRIPTION

A. PROPONENT/PROJECT LOCATION

Proponent

Ashton Parking Lot Expansion is sponsored by Seattle Pacific University.

Project Location

The *Proposed Action* is located on the campus of Seattle Pacific University, which is on the north-end of Seattle's Queen Anne Hill (**Figure 1 and 2**). More specifically, the site is on the southwest corner of the campus and is bounded by 5th Ave. W. on the east and north, and W. Barrett St. on the south (**Figure 3**). Ashton Hall is proximate to the site to the north, and the existing Ashton Hall parking lot is to the west. The legal description of the site is included on the MUP plans, which are part of the MUP project file (#**3009946**). The area of the site is approximately 30,000 sq. ft.

B. BACKGROUND INFORMATION

This portion of the EIS Addendum provides an overview of several factors that have influenced the *Proposed Action* – site characteristics, Seattle Pacific University's *Major Institution Master Plan*, and information associated with this EIS Addendum.

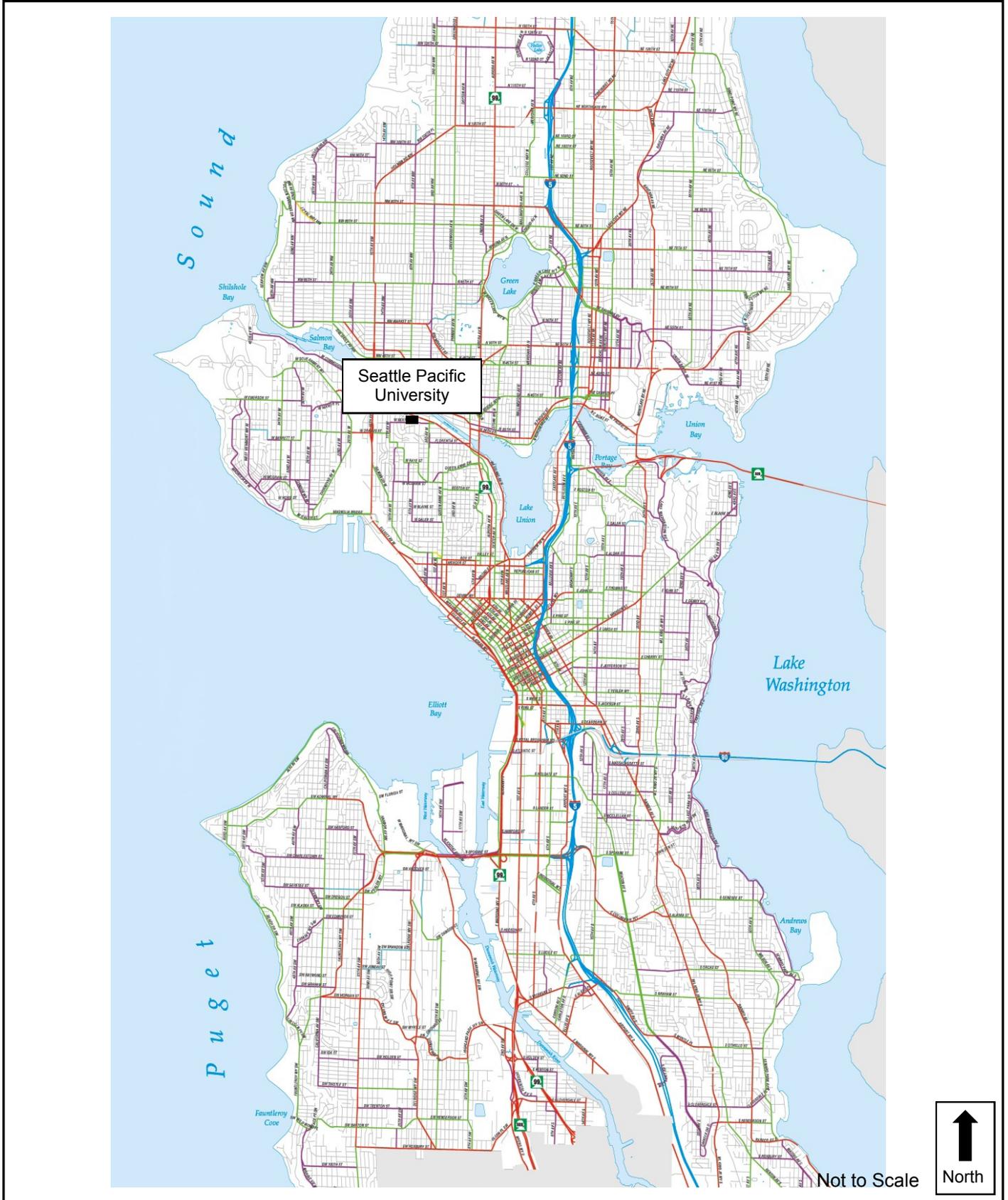
Existing Site Characteristics

The project site as it currently exists is depicted in (**Figure 4**). As shown, there are four buildings on-site, all are owned by Seattle Pacific University and all are vacant duplexes. Three of the duplexes are grouped together (508, 520 and 528 W. Etruria St.) on the north side of W. Etruria Street, and the fourth (607 W. Etruria St) is located to the southwest of the other three, on the south side of W. Etruria Street. Based on King County Assessor data, the four structures are all approximately the same size, all are of wood-frame construction and each was built in 1957.

Three of the four duplexes (508, 520 and 528 W. Etruria St.) were identified in Seattle Pacific University's *Major Institution Master Plan*¹ as structures proposed for demolition (*Appendix D*). The combined lot coverage of all four buildings approximates 6,912 sq.ft., which amounts to about 23 percent of the site area (30,000 sq.ft.). The balance of the site contains surface parking (32 spaces), lawn and the vacated W. Etruria Street.

¹ Seattle Pacific University, 2000.

Seattle Pacific University Ashton Parking Lot Expansion EIS Addendum

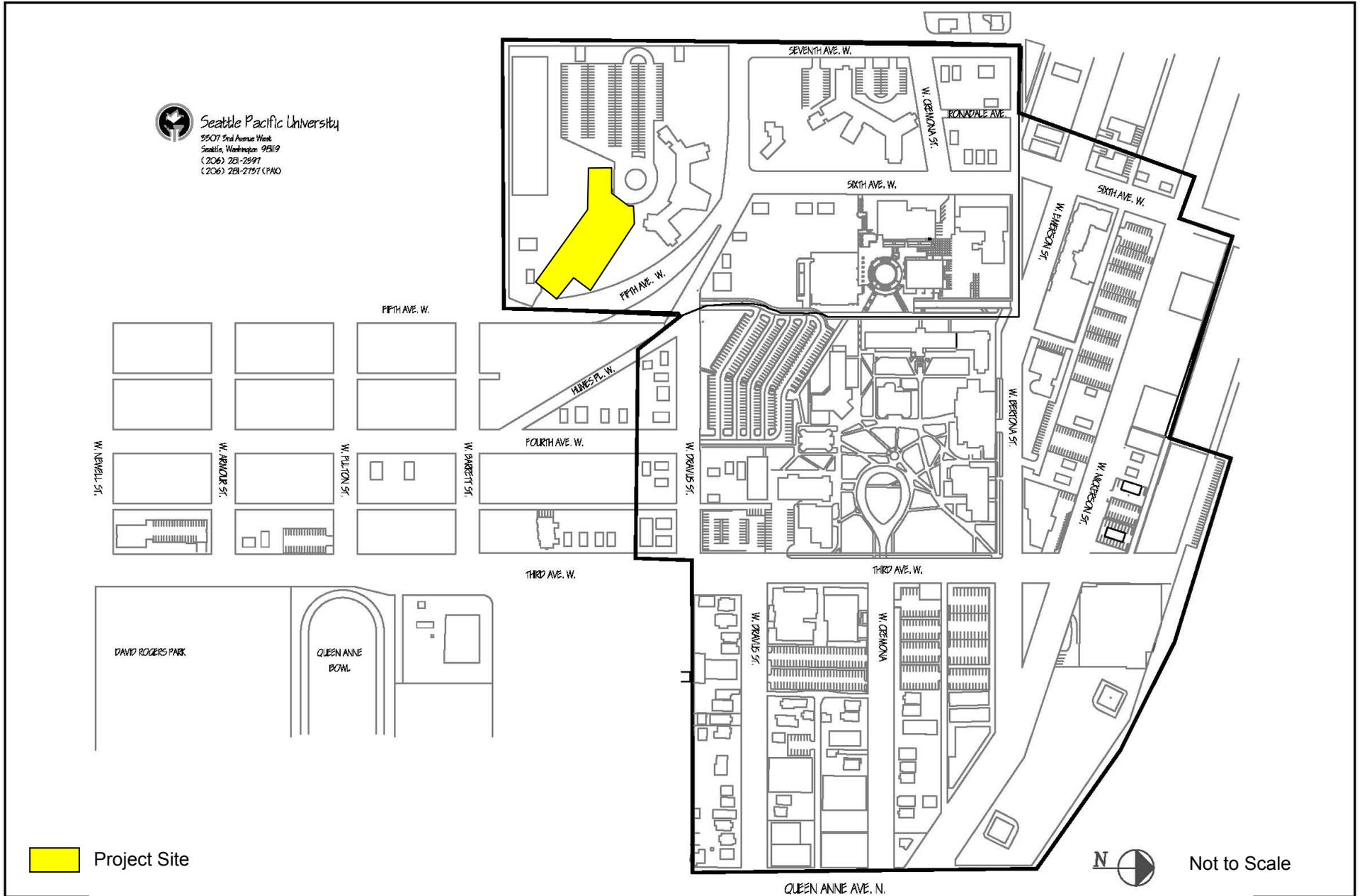


Source: City of Seattle, 2003



Figure 1
Regional Map

Seattle Pacific University Ashton Parking Lot Expansion EIS Addendum

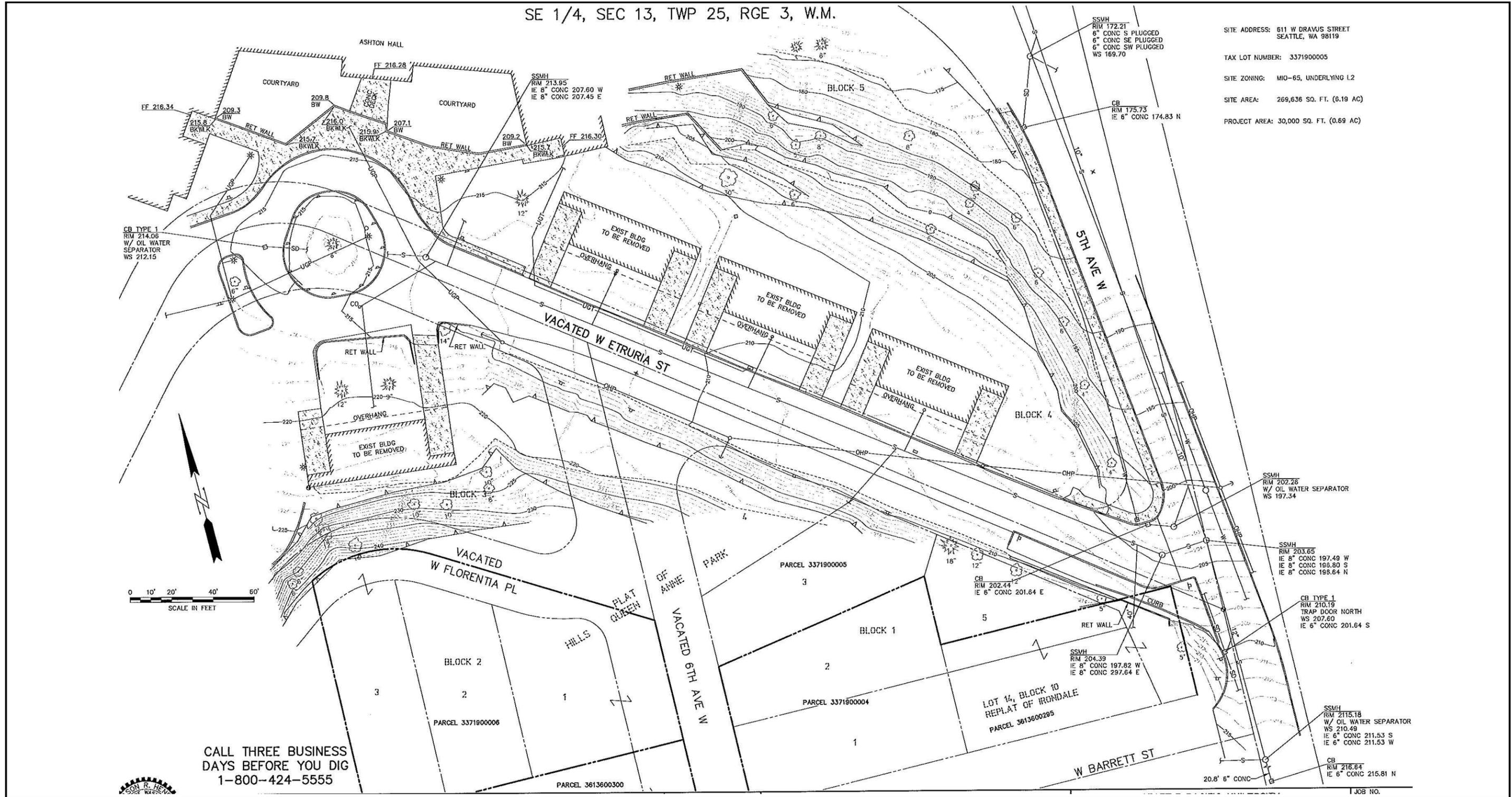


Source: SPU, 2008

Figure 2
Vicinity Map

Seattle Pacific University Ashton Parking Lot Expansion EIS Addendum

SE 1/4, SEC 13, TWP 25, RGE 3, W.M.



Source: Hammond Collier Wade Livingstone, 2008



Figure 4
Existing Conditions

While the site of the *Proposed Action* is not a City-designated Environmentally Critical Area, an area proximate to the site on the north is identified on City zoning maps as having steep slopes of 40 percent or greater; this area is classified as a potential slide area. All project-related construction would maintain a 15 foot setback from the slope.

There are four trees on the project site including two Norway spruce, one Bigleaf maple and one Shore pine. Proximate to the site, on the slope east of Ashton Hall there are laurel, maple and birch trees. Additional information regarding the trees is contained in *Section II A.* of this EIS Addendum.

As depicted in **Figure 3**, the following Seattle Pacific University facilities border the project site:

- Ashton Hall, a 6-floor, 440-student residence hall located immediately northwest of the project site;
- Ashton Hall Parking Lot, surface parking with 138 spaces immediately west; and
- Campus open space is located to the north and south.

Seattle Pacific University's Major Institution Master Plan

Seattle Pacific University's *Major Institution Master Plan* (MIMP)² was adopted by the City in 2000. The MIMP addresses the following major components:

- expansion of the campus boundaries;
- proposed development of approximately 570,000 sq.ft. of development consisting of two planned³ projects (approx. 110,000 sq.ft.), 10 potential⁴ projects (approx. 460,000 sq.ft.), plus an unspecified number of potential housing projects within the Major Institution Overlay (MIO) expansion areas;
- demolition of five buildings (approx. 45,000 sq.ft.) in conjunction with the planned projects and 42 buildings (approx. 152,000 sq.ft.) associated with potential projects;
- major building renovations;
- addition of several potential parking garages (approx. 415,000 sq.ft.) containing an estimated 1,170 parking spaces (net increase of about 800 spaces);
- potential addition of new open spaces;
- pedestrian and vehicular circulation changes;
- modification of development standards applicable to institutional development within the campus boundaries; and a
- transportation management plan.

The 460,000 sq.ft. of potential development that was included in the MIMP consisted of academic space, core and support space, and residential space⁵ campus-wide. These totals do not include parking projects. Approximately 1,225 parking spaces were included in the MIMP

² Ord. No. 120074 and C.F. No. 303573; August 21, 2000; Seattle Dept. of Construction & Land Use MUP Proj. No. 9805566

³ Planned projects are "development which the Major Institution has definite plans to construct." (SMC 23.69.030 D.)

⁴ Potential projects are "development or uses for which the Major Institution's plans are less definitive." (SMC 23.69.030 D.)

⁵ Adopted MIMP, Table 3, pg. 25

under planned development, and the maximum total parking supply identified under potential development was 1,700 – 1,900 spaces.

The proposed site of the **Ashton Parking Lot Expansion** is located within the University's then-existing MIO campus boundary. The Adopted MIMP states,

"although parking facilities with the capacity to provide the maximum amount of parking allowed by the code have been identified as potential projects, it is not anticipated that this much parking will be required to meet the University's parking needs."

Also, on page 26 it is stated that "all sizes of the potential parking garages are approximate."

One of the identified potential parking projects involved construction of a one-story "lid" over the western section of the existing Ashton parking lot to provide 65 parking spaces. The 65-space garage that is shown in the MIMP indicated what possibly could be constructed. That action, however, was never implemented and is not proposed as part of this project.

The **Ashton Parking Lot Expansion** involves a net increase of 68 new parking spaces, (100 proposed spaces less 32 existing parking spaces) in this area of the University's campus. Additional parking in the northwest portion of the campus will be developed in the future in conjunction with the *Irondale Residence Hall* project (MUP #3004816). That project will provide a net increase of approximately 68 parking spaces. Together, these two projects will result in a total gain of 136 new parking spaces. Eventually, it is anticipated that additional parking spaces would be provided in a garage on the parking lot north of Emerson Hall, but the timing and size of that facility remains uncertain.

Relevant Environmental Analyses

The following is an overview of Seattle Pacific University's *Major Institution Master Plan* EIS, which serves as a basis for the *Proposed Action*.

Draft and Final EISs⁶ were prepared for Seattle Pacific University's *Major Institution Master Plan* in 1999. EIS Scoping associated with the Draft EIS occurred October 1, 1998 through November 6, 1998. At the conclusion of EIS Scoping process the Seattle Department of Construction & Land Use (DCLU),⁷ as SEPA Lead Agency, confirmed the alternatives and the range of environmental issues to be evaluated in the Draft EIS. The Draft EIS was issued May 6, 1999 and was circulated for a 30-day public comment period. During that timeframe, an open house and a public meeting were held to provide an additional opportunity for agencies, organizations and the public to learn more about the proposed MIMP, to better understand possible environmental impacts, and to provide public testimony. At the conclusion of the public comment period, 19 comment letters were received from agencies, organizations and individuals. The Final EIS was issued September 30, 1999. That document provided responses to written comments and public testimony that were received concerning the Draft EIS during the public comment period.

⁶ Seattle, 1999a and Seattle, 1999b, respectively

⁷ This is the previous name of the Seattle Department of Planning and Development (DPD).

The EIS for the MIMP included analysis of the following:

- **Alternatives** – In addition to the University's *Proposed Action*, the *MIMP* EIS addressed environmental impacts associated with the following alternatives:
 - No Action Alternative;
 - Limited MIO Boundary Expansion;
 - More-Substantial MIO Boundary Expansion;
 - Potential Pedestrian Bridges or Tunnels;
 - Alternative Site for the Science Building; and
 - Increased Decentralization.

- **Environmental Issues** – The *MIMP* EIS evaluated the *Proposed Action* and each of the alternatives in light of the following environmental parameters:
 - Land Use Patterns;
 - Land Use – Relationship to Adopted Plans, Policies and Regulations;
 - Transportation, Circulation and Parking;
 - Housing;
 - Aesthetics;
 - Historic/Cultural;
 - Public Services/Utilities; and
 - Construction

EIS Addendum – Key Analyses

SEPA authorizes an agency to “use environmental documents that have previously been prepared in order to evaluate proposed actions, alternatives, or environmental impacts. The proposals may be the same as, or different than, those analyzed in the existing documents.”⁸ Existing documents may be used by employing one or more designated methods; the method most applicable to the proposed ***Ashton Parking Lot Expansion*** project involves an EIS Addendum. An EIS Addendum “adds analyses or information about a proposal but does not substantially change the analysis of significant impacts and alternatives in the existing environmental document.”⁹

DPD has determined that for SEPA compliance associated with the proposed ***Ashton Parking Lot Expansion***, it is appropriate to adopt the Seattle Pacific University *Major Institution Master Plan* EIS and prepare an EIS Addendum -- to add project-specific information concerning the proposed development. DPD has determined that the EIS Addendum should address the following environmental parameters; each is analyzed in *Section II* of this EIS Addendum.

- **Land Use** – land use patterns and the relationship of the *Proposed Action* to adopted City land use plans, policies, and regulations;

- **Aesthetics**;

- **Greenhouse Gas Emissions**;

⁸ WAC 197-11-600(2)

⁹ WAC 197-11-600(4)(c)

- **Historic Resources;**
- **Transportation and Parking;** and
- **Construction-related impacts.**

No other significant adverse environmental impacts from the *Proposed Action* are anticipated. This EIS Addendum, however, should be read in conjunction with the *MIMP* EIS.

C. DESCRIPTION OF THE PROPOSED ACTION

Project Overview

The *Proposed Action* would involve development of a surface parking lot for use by resident students of Seattle Pacific University. The parking lot would encompass an area of approximately 30,000 gross sq.ft. and would contain approximately 100 parking spaces (68 net new parking spaces). The following provides details concerning each of the elements that comprise the proposed **Ashton Parking Lot Expansion**. The parking lot would provide an expansion of the existing, adjacent Ashton Parking Lot, which was envisioned in the MIMP as a lid over the existing parking lot.

Project Design

As shown by the site plan in **Figure 5**, the parking lot would be linear (as viewed in plan view) and would follow the topography of the site. The lot would consist of two components – an east section and a west section. The largest component would be the east section. This area would be oriented in a northwest – southeast direction and would provide parking for an estimated 84 vehicles. This parking area would include 90-degree parking associated with the vacated W. Etruria St., as well as an area of angled parking north of the vacated W. Etruria St., which would be accessed via W. Etruria St. Four ADA parking spaces would be provided at the north end of the east parking area. The west section is an area that is located south of the vacated W. Etruria St. This area would contain 16 parking spaces.

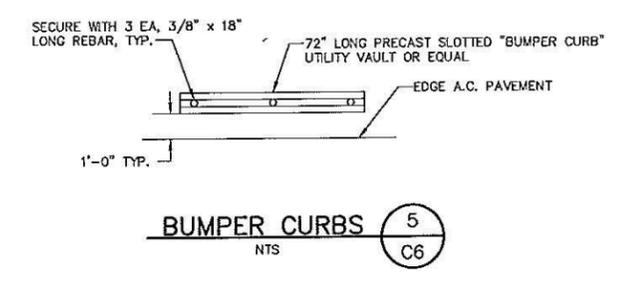
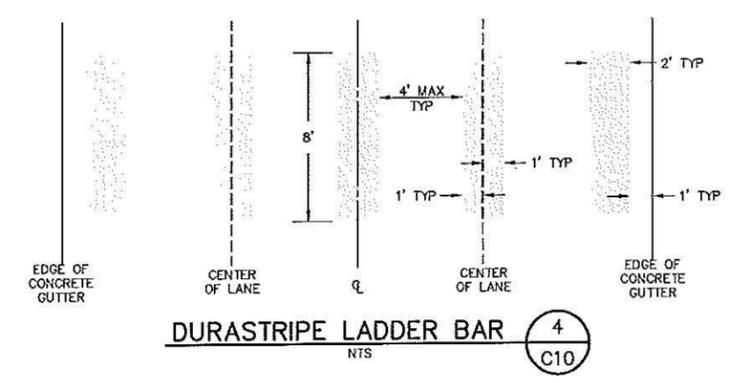
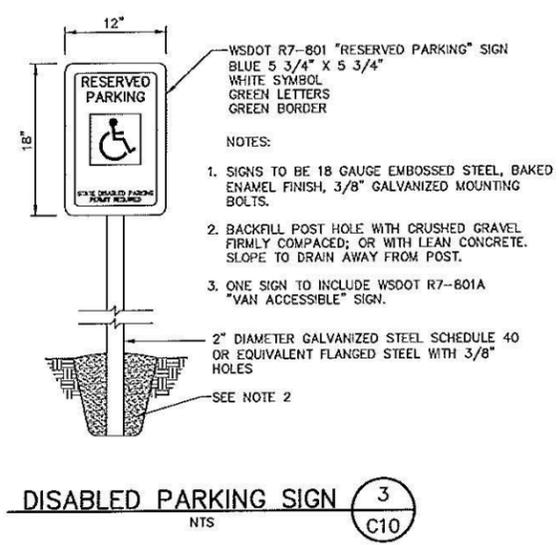
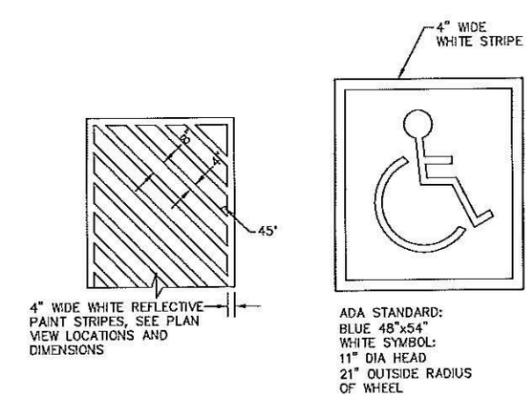
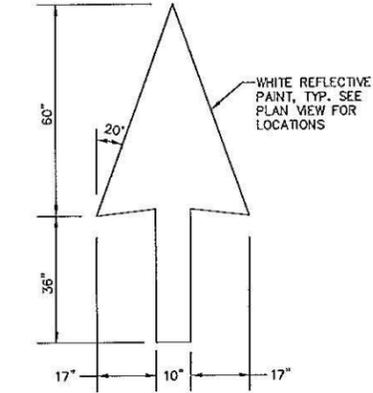
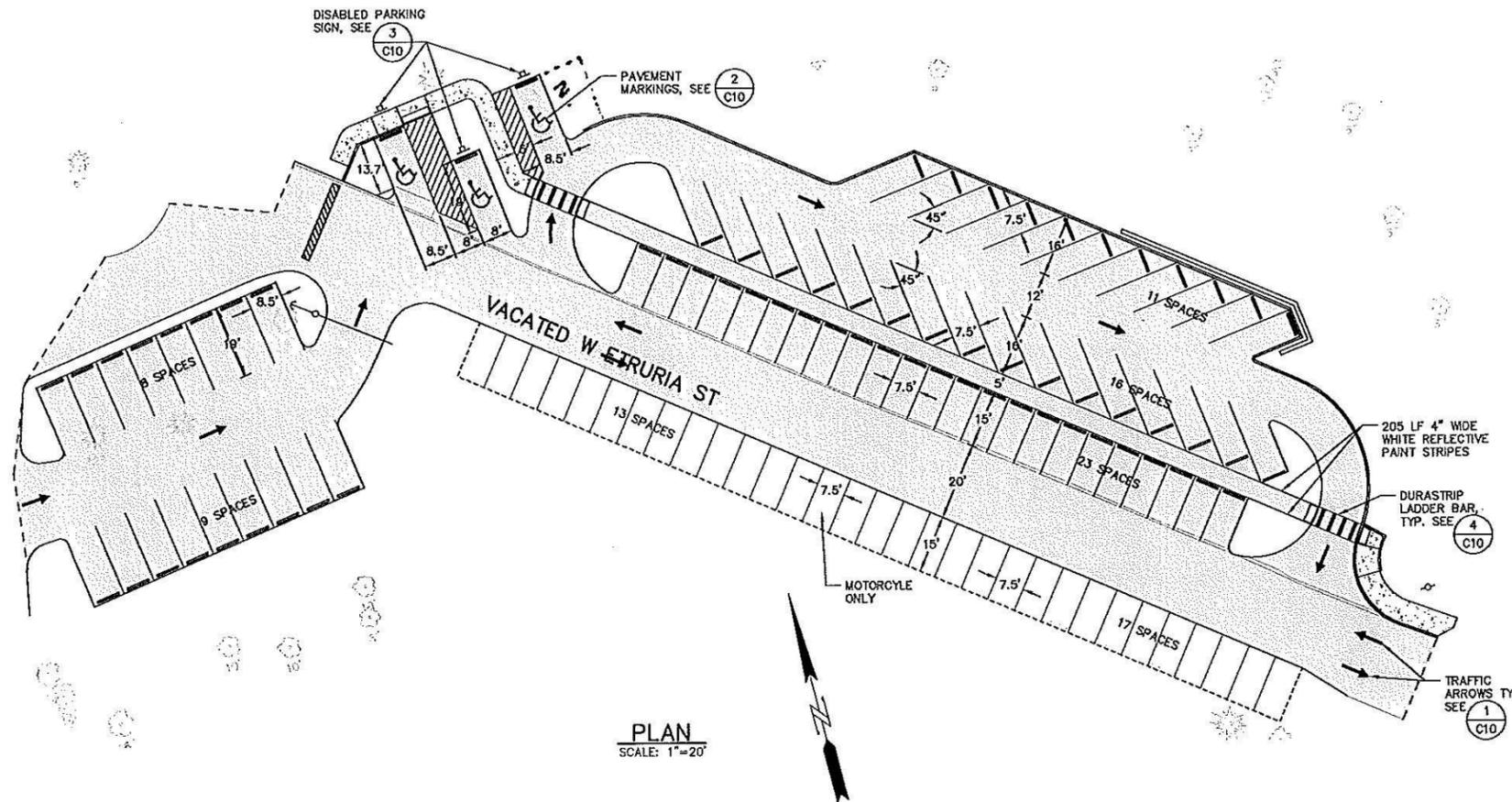
Access to the **Ashton Parking Lot Expansion** area would be from the existing Ashton parking lot that is located west of the project site and via the vacated W. Etruria St. from 5th Ave. W. The segment of W. Etruria St. that is within the University campus is maintained by Seattle Pacific University.

The proposed **Ashton Parking Lot Expansion** would be paved with asphaltic concrete. Security lighting would be provided for both sections of the parking lot. This would include lighting fixtures on 25-28-foot standards with cut-offs to restrict light spillage. In addition, security cameras would be provided at several locations and two sites for emergency telephone communication.

The *Proposed Action* would involve site grading to achieve a gently sloping site from west to east (maintaining an average slope of 3 percent). An estimated 0.70 ac. of impervious surfaces would be created on the site. A 2,158 cu.ft. stormwater detention pipe (60-inch x 110 lineal ft.) would be located in the east central portion of the project site.

Seattle Pacific University Ashton Parking Lot Expansion
EIS Addendum

SE 1/4, SEC 13, TWP 25, RGE 3, W.M.



Source: Hammond Collier Wade Livingstone, 2008



Figure 5
Site Plan

Landscaping

The **Ashton Parking Lot Expansion** would be bordered by approximately 6,400 sq.ft. of landscaping and 2,630 sq.ft. of lawn (**Figure 6**). In addition to the proposed open space areas on-site, **Figure 6** depicts the location of major plantings.

A Shore pine near the proposed ADA stalls would be retained, while three trees would be removed for the *Proposed Action* including:

- 12" (diameter) Blue spruce
- 9" Blue spruce
- 14" Bigleaf maple

None of these trees meets the City of Seattle's size threshold for classification as an "Exceptional Tree" under Director's Rule 16-2008. See *Section II -- Land Use* for more information.

As shown by **Figure 6**, 31 new trees are proposed; specifically,

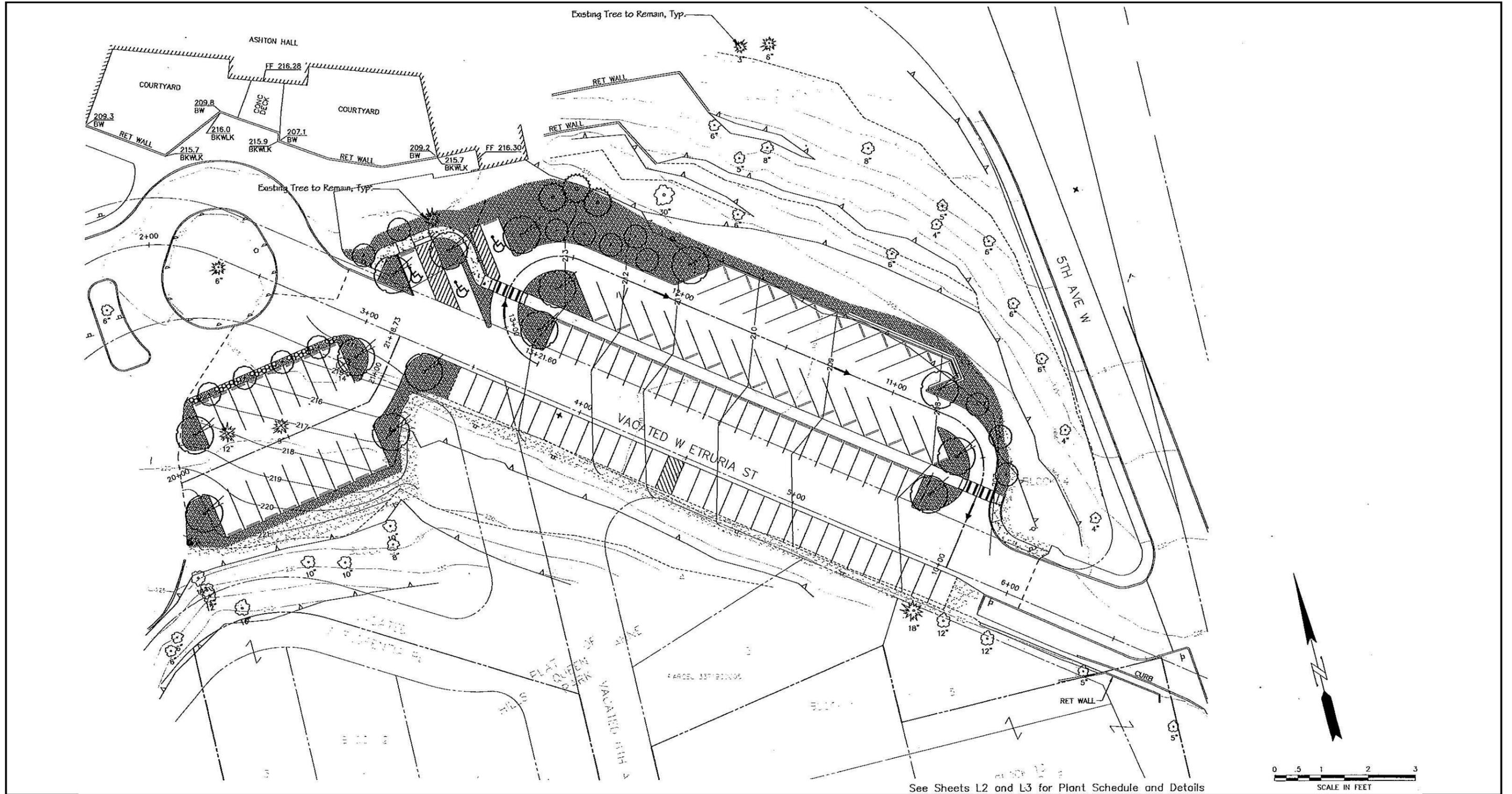
- along the border of the western section of the parking lot -- five Red maples are proposed along with four tupelo trees; and
- on the eastern section of the parking lot, north of W. Etruria St. -- nine Red maples are proposed, along with three Shore pines, and ten Goldenrain trees.

Details concerning installation of plantings and tree protection during construction is contained in the MUP planset that is on-file with DPD.

Site Preparation and Proposed Construction Schedule

It is proposed that the one Shore pine tree, which is located south of W. Etruria St. be retained; three other existing trees would be removed. Construction of the *Proposed Action* would occur prior to construction of the University Center project, and would be expected to be completed within approximately three months.

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See Sheets L2 and L3 for Plant Schedule and Details

Source: Hammond Collier Wade Livingstone, 2008



Figure 6
Landscape Plan

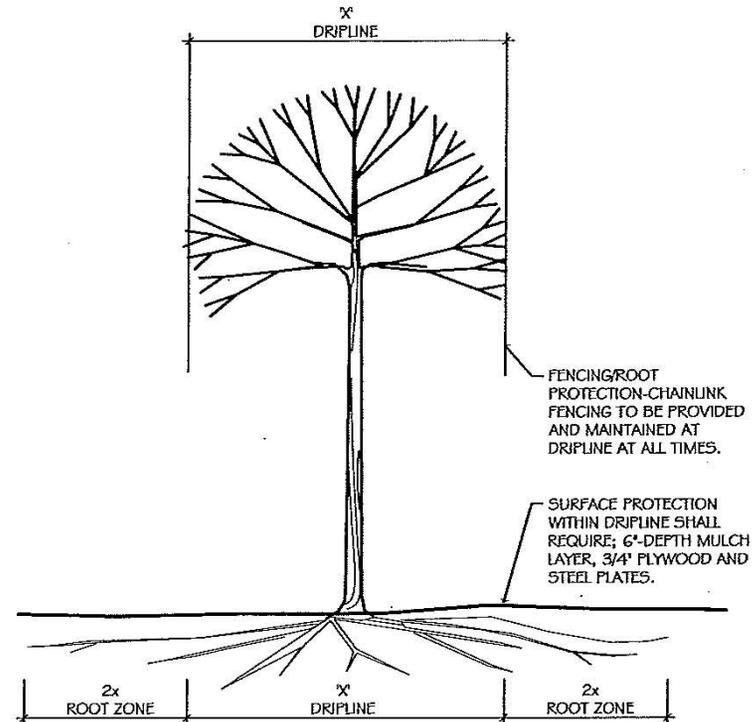
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PLANTING SCHEDULE

SYMBOL	QTY.	Botanical/ Common	Size / Comments
TREES			
		Existing trees to be salvaged	
		Trees to be removed	
	14	<i>Acer rubrum</i> / Red Maple	2½" - cal., B # B
	10	<i>Koelreutana paniculata</i> / Goldentrain Tree	1½" - cal., B # B
	4	<i>Nyssa sylvatica</i> / Tupelo Tree	1½" - cal., B # B
	3	<i>Pinus contorta</i> / Shore Pine	12' min. Ht., B # B
MEDIUM / SMALL SHRUBS			
	27	<i>Berberis thunbergii</i> var. <i>Atropurpurea</i> 'Roseglow' / Roseglow Japanese Barberry	24" Ht., 18" O.C.
GROUNDCOVERS			
	6400 SF	<i>Mahonia repens</i> / Creeping Mahonia	#4 pot, 12" O.C.
	2630 SF	Lawn	

PLANTING NOTES

- PLANT COUNTS ARE FOR REFERENCE ONLY. CONTRACTOR SHALL SUPPLY ALL PLANTS AS SHOWN ON PLANS.
- CONTRACTOR SHALL SUPPLY PLANTS OF THE SIZE SPECIFIED. IF CONTRACTOR IS UNABLE TO LOCATE PLANT MATERIAL OF THE SIZE SPECIFIED, CONTACT THE LANDSCAPE ARCHITECT FOR INSTRUCTIONS AND/OR ACCEPTED ALTERNATIVES.
- CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT 48 HOURS PRIOR TO PLANTING FOR APPROVAL OF PLANT MATERIAL AND LAYOUT OF LARGE TREES AND SHRUBS.
- ALL SHRUB LAYOUT TO BE PARALLEL TO ADJACENT EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- PLANTING AREAS SHALL RECEIVE A 2" LAYER OF SPECIFIED MULCH.
- CONTRACTOR SHALL GUARANTEE PLANT MATERIAL FOR A PERIOD OF (1) ONE YEAR FOLLOWING END OF THE 120-DAY MAINTENANCE PERIOD.
- HOLD PROPOSED PLANTING AND GROUND COVER BACK 5 FT. RADIUS FROM EXISTING TREES AND INSTALL SPECIFIED MULCH.
- GROUND COVER TO BE PLANTED 24" FROM THE TRUNK OF ALL NEW TREES AND 18" FROM THE BASE OF ALL NEW SHRUBS, MEASURED CENTER TO CENTER.
- ALL AREAS DISTURBED DURING CONSTRUCTION THAT ARE NOT RECEIVING NEW PLANTING SHALL BE HYDROSEEDED.
- SEE ADDITIONAL DETAILS FOR SOIL AND PLANT DETAILS.



DRIPLINE ZONE-

- OPERATION OF HEAVY EQUIPMENT AND PILING OF HEAVY MATERIALS PROHIBITED.
- LIMITED TRENCHING ALLOWED. EXCAVATION BY HAND OR WITH HAND-DRIVEN TRENCHER MUST BE APPROVED BY ENGINEER.
- SEVERING OF ROOTS LARGER THAN 2" DIA. REQUIRES ENGINEER'S APPROVAL.

ROOT ZONE-

- OPERATION OF HEAVY EQUIPMENT AND PILING OF HEAVY MATERIALS REQUIRES ENGINEER'S APPROVAL.
- TRENCHING WITH HEAVY EQUIPMENT ALLOWED UNDER ENGINEER'S SUPERVISION AND IF 2/3 OR MORE OF THE ROOT ZONE IS UNDISTURBED.

ADDITIONAL NOTES-

- 6' HIGH CHAINLINK FENCE SHALL COMPLETELY ENIRCLE TREE(S). INSTALL FENCE POSTS USING FIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.
- TREATMENT OF ROOTS EXPOSED/DAMAGED DURING CONSTRUCTION: ROOTS OVER 1" DIAM., MAKE A CLEAN STRAIGHT CUT TO REMOVED DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP AND COVERED WITH SOIL AS SOON AS POSSIBLE.

1 TREE PROTECTION
NOT TO SCALE

TREE_FRNT

Source: Fazio Associates LLC, 2008

SECTION II

COMPARISON
of
ENVIRONMENTAL IMPACTS

SECTION II

COMPARISON
of
ENVIRONMENTAL IMPACTS

This document is an Addendum to the Draft and Final EISs that have been prepared for Seattle Pacific University's *Major Institution Master Plan* (MIMP). The MIMP EIS evaluates alternatives, impacts and mitigation measures for proposed development associated with the Master Plan. Environmental elements that were analyzed in the Draft and Final EIS include: *Land Use* (land use patterns), *Relationship to Plans/Policies/Regulations*, *Transportation*, *Housing*, *Aesthetics*, *Historical/Cultural*, *Public Services/Utilities* and *Construction*. Copies of the EISs are available for review at DPD and at local libraries noted in the *Fact Sheet* of this EIS Addendum. The Final EIS associated with the MIMP is adopted for purposes of SEPA compliance associated with the proposed **Ashton Parking Lot Expansion**, pursuant to WAC 197-11-630 and the City of Seattle SEPA regulations.

According to the SEPA Rules¹⁰ and Seattle's Environmental Policies and Procedures,¹¹ an EIS Addendum is an environmental document that is used to provide additional information or analysis that does not substantially change the analysis of significant impacts and alternatives in existing environmental documents (WAC 197-11-706, 197-11-600[4][c]). Existing environmental documents may be used in whole, or in part, to address environmental considerations. The previous proposal and this *Proposed Action* need not be identical, but must have similar elements that provide a basis for comparing environmental consequences (RCW 43.21C.034). As noted previously, Seattle Pacific University's *MIMP* EIS is a non-project specific document that analyzes decisions on policies, plans and regulations. It also analyzed the impacts of re-development of the **Ashton Parking Lot Expansion** site and surrounding area; that EIS was found to be adequate. The purpose of this EIS Addendum, therefore, is to provide additional, more-detailed analysis and information concerning the proposed **Ashton Parking Lot Expansion** project.

Scope of Analysis of this EIS Addendum

The Draft and Final EIS for Seattle Pacific University's *MIMP* EIS contain detailed environmental analyses relative to a broad range of environmental parameters. DPD has determined that the above referenced SEPA documents are appropriate for the proposed **Ashton Parking Lot Expansion** and concluded that additional, more detailed, site-specific environmental analysis and mitigation is needed relative to the following environmental parameters:

¹⁰ Chapter 197-11-600 (4) and 197-11-706 Washington Administrative Code

¹¹ Seattle Municipal Code 25.05.600 D.3. and 25.05.706

- **Land Use** (land use patterns and project consistency with the MIMP, the City’s more-recent *Comprehensive Plan*, the Land Use Code, the Major Institution Overlay Code; and applicable land use regulations (e.g., Environmentally Critical Areas, trees, etc.);
- **Energy / Greenhouse Gas Emissions** (evaluation of climate impacts);
- **Aesthetics** (urban design, height, bulk, and scale, light and glare impacts);
- **Historic Resources**;
- **Transportation and Parking**: and
- **Construction**.

Project-specific information is presented in this EIS Addendum relative to each of the environmental parameters noted above. The analysis for each consists of a brief summary of the impacts noted in Seattle Pacific University’s *MIMP* EIS followed by an analysis of project-specific impacts associated with the proposed **Ashton Parking Lot Expansion**.

A. LAND USE

Land Use Patterns – Existing Conditions

MIMP Final EIS

The *MIMP* EIS identified existing University land uses within Seattle Pacific University’s Major Institution Overlay (MIO) as academic and support facilities ranging from classrooms and offices to residence halls and parking facilities. It also noted that non-University owned land uses were present within the MIO boundary and they included a dry cleaning business and styling salon, an apartment building, a single-family residence and cemetery maintenance building on W. Barrett Street west of 5th Avenue West.

The *MIMP* EIS notes that the campus includes a significant amount of open space that is used by students and the general public. Such open space areas include: Wallace Athletic Field and Track adjacent to the Royal Brougham Pavilion, Martin Square, 5th Avenue Mall, Emerson Triangle, Tiffany Loop, and a small SPU-owned park outside campus boundaries adjacent to the Ship Canal. Campus lawns also provide open space utilized by students and the public.

The *MIMP* EIS noted that Seattle Pacific University owns 77 buildings within the campus boundaries. Buildings on campus include core facilities, such as the library, dining facilities, student and administrative services, bookstore and auditorium; academic buildings, residence halls and family housing; recreation; physical plant; and multipurpose facilities. At that time (1999), the *MIMP* EIS indicated that existing campus buildings contained approximately 801,000 gross square feet, of which the Miller Science Learning Center was the largest academic building, the Library was the largest core activity building, and Ashton Hall was the largest residence hall.

The *MIMP* EIS also described existing land uses adjacent to the campus, including: “a variety of single-family and multifamily residential, educational, commercial and semi-industrial land uses.” The *MIMP* EIS noted that the campus is a dominant use in the area. The Lake Washington Ship Canal was noted in the *MIMP* EIS as a significant feature that influences land use patterns near the campus. Other influences include Queen Anne Hill to the south and W. Nickerson St. as the main east-west arterial through campus.

The *MIMP* EIS states that zoning for the “Ashton Parking Lot Expansion” site is MIO Lowrise 2, with a 65-foot height limit. MIO Lowrise 1 and Lowrise 2 residential zones are also adjacent to the project site. The overall impact of planned and potential development considered in the *MIMP* EIS was characterized as resulting in an “Intensification of uses on the campus, expansion of the campus land uses and displacement of some existing institutional and non-institutional land uses.” Proposed zoning within the expansion areas did not include any changes to the underlying zoning at that time. Within the *Adopted MIMP*, three of the duplexes located at the site of the *Proposed Action* were identified for possible demolition in order to complete a “potential development project” - the East Ashton Residential building.

While the *MIMP* EIS noted that potential development within the interior of the campus would not affect surrounding land uses, it did indicate that “potential development along the periphery of the existing campus MIO boundary and within the planned boundary expansion areas would have the potential for land use impacts to surrounding neighborhoods.”

EIS Addendum – Project Impacts

Currently, as described in the *MIMP* EIS, the area surrounding the campus continues to be a mixed-use neighborhood where the campus dominates existing uses in the immediate vicinity, which are primarily institutional, residential and service related. The University presently owns 86 buildings within the MIO boundaries. University buildings now contain approximately 995,300 gross square feet (excluding the Emerson Hall parking garage, two apartment buildings the University leases, and the Wesley Apartments). Existing on-campus land uses, both on-site and in the vicinity of the project site, are similar to those identified in the *MIMP* EIS. The proposed project would result in a surface parking lot with a paved surface totaling approximately 30,000 gross sq. ft.

The site of the proposed ***Ashton Parking Lot Expansion*** would occupy an area to the east of the existing Ashton Hall Parking Lot. The site currently contains four vacant duplexes, surface parking (32 spaces) and the vacated W. Etruria Street.

The primary on-campus land use adjacent to the project site is Ashton Hall, which is one of Seattle Pacific University’s residential halls. This is a 6-story residence hall located to the north of the existing and the proposed parking areas. The primary off-campus land uses within several blocks of the project site include single family residences and apartments to the east and the Mount Pleasant Cemetery to the south.

While the pattern of land use on the project site would change from an area of low density (duplex) campus housing and surface parking to that of surface parking, this change is not expected to greatly affect land uses proximate to the site. Since a similar campus parking use is already present adjacent to this site (Ashton Parking Lot), the proposed project would entail an expansion of that existing use. Additional parking was envisioned in the University’s *MIMP* for this area of campus.

Potential Mitigation Measures

No significant land use impacts are anticipated from development of the ***Ashton Parking Lot Expansion*** and, therefore, no mitigation is necessary.

Significant Unavoidable Adverse Impacts

No significant unavoidable adverse land use impacts are anticipated.

Relationship to Plans, Policies and Regulations

The project site is located on the campus of Seattle Pacific University, one of the City's 13 designated Major Institutions. The following summarizes key elements of Seattle Pacific University's adopted MIMP and analyzes the relationship of the current proposal to the MIMP.

MIMP Final EIS

The adopted MIMP¹² includes the following:

- expansion of the campus boundaries (approx. 14.3 acres);
- proposed development of approximately 570,000 sq. ft. of gross floor area consisting of two *planned* projects¹³ (approx. 110,000 sq. ft.), ten *potential* projects¹⁴ (approx. 460,000 sq. ft.), plus an unspecified number of potential housing projects in the proposed Major Institution Overlay expansion areas;
- demolition of five buildings (approx. 45,000 sq. ft.) in conjunction with *planned* projects and 42 buildings (approx. 152,000 sq. ft.) associated with *potential* projects;
- major building renovations;
- addition of several potential parking garages (approx. 415,000 sq. ft.) containing an estimated 1,170 parking spaces (net increase of about 800 spaces);
- potential addition of new open spaces;
- pedestrian and vehicular circulation changes including the vacation of a portion of a street and an alley; and
- modification of development standards applicable to institutional development within the campus boundaries.

The 460,000 sq. ft. of potential development that was included in the MIMP consisted of academic space, core and support space, and residential space¹⁵ campus-wide.

Section 23.69.020 B. of the City's Major Institution Code indicates that the development standards for Major Institution uses located within a Major Institution Overlay (MIO) zone may be modified by adoption of a Major Institution Master Plan (MIMP). Section IV of Seattle Pacific University's adopted MIMP modified development standards in 22 broad areas including:

¹² In August 2000, the City Council approved a new *Major Institution Master Plan* for Seattle Pacific University, consistent with provisions of the City's Land Use Code (Ord. 120074 with Comptroller File 303573).

¹³ Planned projects are "development which the Major Institution has definite plans to construct" (SMC 23.69.030 D.).

¹⁴ Potential projects are "development or uses for which the Major Institution's plans are less definitive (SMC 23.69.030 D.).

¹⁵ *Adopted MIMP*, Table 3, page 25.

A. MIO district underlying zoning;	B. MIO height limits;	C. height exceptions;
D. height measurement technique;	E. additional height on sloped lots;	F. structure setbacks;
G. setbacks for specific items;	H. landscaping and screening of required setbacks;	I. lot coverage;
J. landscaping;	K. open space;	L. transition in height and scale;
M. width and depth limits;	N. setbacks between structures;	O. preservation of historic structures;
P. views;	Q. pedestrian circulation;	R. vehicle parking requirements;
S. bicycle parking requirements;	T. additional development standards for a potential chapel or auditorium;	U. additional development standards in the MIO district expansion areas south of W. Dravus St. between Humes Pl. W. and Queen Anne Ave. N.; and
V. residential unit density standards.		

EIS Addendum – Project Impacts

As outlined in *Section I* of this EIS Addendum, the *Proposed Action* would involve expanding the existing Ashton parking lot. The parking lot expansion would include a surface area of approximately 30,000 gross square feet and provide approximately 100 surface parking spaces (68 net new parking spaces). The following provides an overview of the relationship of the *Proposed Action* with applicable development standards.

Development Density: *Besides the development standards noted above, the City Council established a development density limit for the entire SPU campus.¹⁶ The “FAR¹⁷ of the MIO District, excluding street rights-of-way and other property not owned by SPU shall not exceed 0.90.”*

Discussion: The *Adopted* MIMP noted (in 1999) that the developed floor area of SPU buildings within the University’s MIO District was approximately 801,000 gross sq. ft., which resulted in a Floor Area Ratio of 0.48. The MIMP further noted that with the total planned and potential development, plus the two projects to be completed under the previous MIMP,¹⁸ plus the potential above-grade parking garages, and less the existing buildings to be demolished, the proposed maximum developable gross floor area would approximate 1,462,000 gross sq. ft. The *Adopted* MIMP notes that “[t]he FAR of the MIO District, excluding street rights-of-way and other property not owned by SPU shall not exceed 0.90.”¹⁹

¹⁶ City Council condition #4, Ord. 120074.

¹⁷ FAR refers to Floor Area Ratio. It is the ratio of the amount of gross floor area within a proposed structure to the site area on which a structure is located.

¹⁸ Emerson Residence Hall & Parking Garage and Gwinn Commons Renovation.

¹⁹ *Adopted* MIMP, pg. 25

Presently, the FAR associated with existing buildings on the entire campus is 0.606. This FAR is calculated by dividing the current gross square footage of building space within the MIO boundaries (1,046,478 sq.ft.) by the total campus acreage within the MIO boundary (1,725,706 sq.ft.).

In addition to the proposed **Ashton Parking Lot Expansion**, Seattle Pacific University recently constructed the **West Cremona Modular Classrooms** (MUP #3009942) and currently has two pending projects that have received MUP approval (**Irondale Residence Hall** [#3004816] and **University Center** [#3011176]) – **Table 1** presents an overview of the pending projects – together with the proposed **Ashton Parking Lot Expansion** -- and the cumulative effect that completion of each would have on the campus-wide FAR.

Table 1
Campus Floor Area Ratio – Existing and Projected
Based on the Proposed Action and Other Pending Campus Development

Existing Conditions	Square Footage	
Campus Lot Area	1,725,706	
Existing Campus Gross Floor Area ²⁰	1,046,478	
Existing Campus Floor Area Ratio	1,046,478 / 1,725,706 = 0.606	
Pending Changes ²¹	Square Footage – <u>Net Increase (Decrease)</u>	Revised -- Floor Area Ratio
Cumulative with – approved <i>Irondale Residence Hall</i> (54,424 sq.ft. of new development less 7,180 sq.ft. of existing development)	47,244	0.634 ²²
Cumulative with – approved <i>University Center</i> (105,153 sq.ft. of new development less 34,371 sq.ft. of existing development)	70,782	0.675 ²³
Cumulative with the proposed – <i>Ashton Parking Lot Expansion</i> (0.0 sq.ft. of proposed new development less 4,664 sq.ft. of existing development)	(4,664)	0.672 ²⁴

As shown by **Table 1**, with the addition of the recently approved *Irondale Residence Hall* and *University Center*, together with the proposed *Ashton Parking Lot Expansion*, the

²⁰ per the Seattle Land Use Code methodology; includes the Wesley Apts. and the recently completed *West Cremona Modular Classrooms*

²¹ Each pending and the proposed project builds on the previous to indicate the cumulative impact.

²² 1,046,478 + 47,244 = 1,093,722. 1,093,722/1,725,706 = 0.634

²³ 1,093,722 + 70,782 = 1,164,504. 1,164,504/1,725,706 = 0.675

²⁴ 1,164,504 - 4,664 = 1,159,840. 1,159,840/1,725,706 = 0.672

campus-wide FAR would change from 0.606 (existing) to 0.672. This amount of campus development is still well below the 0.90 cap. The *Proposed Action* would consist of a parking lot that would contain a paved surface area of approximately 30,000 square feet and provide surface parking for approximately 100 vehicles (net increase of 68 parking spaces). No structure(s) would be developed as part of this MUP application and four existing University buildings would be removed.

Land Use: *The project site is zoned MIO-65 with an underlying zoning designation of Lowrise 2 (residential). The MIO designation applies to major institutional uses and their associated development regulations, whereas the underlying L-2 designation applies to non-institutional uses and their development regulations.*

Discussion: All uses that are functionally integrated with, or substantially related to, the central mission of Seattle Pacific University or that primarily and directly serve the users of the institution constitute an institutional use and are permitted in the MIO overlay district.²⁵ As parking for the University, the *Proposed Action* would be consistent with uses allowed in this zoning district.

Landscaping and Screening of Required Setbacks (Adopted MIMP IV-H²⁶): *The MIMP indicates that “(l)andscaping shall be provided for setbacks which abut a street or at the boundary of the MIO District. Such setbacks shall be planted with trees, shrubs, grass and/or evergreen ground cover. The planting of street trees shall also be considered as part of the landscaping...” Up to 25 percent of the area can be in decorative paving, sculptures, benches or fountains.*

Discussion: Figure 6 (contained in *Section I* of this EIS Addendum) depicts the landscaping that is proposed in conjunction with the proposed ***Ashton Parking Lot Expansion*** project. As noted, the site abuts one street – 5th Ave. W. and the vacated W. Etruria St. The area between the parking lot and the property line adjacent to 5th Ave. W. would be landscaped, consistent with the MIMP provision. In addition, between the site and 5th Ave. W. there is a steep slope, which would be protected and maintained.

Lot Coverage (Adopted MIMP IV-I²⁷): *Lot coverage for development within a Major Institution Overlay zone with an adopted MIMP applies to the entire campus – not just the site of a specific development project. Seattle Pacific University’s maximum lot coverage is 30 percent²⁸ and it excludes street rights-of-way and other properties not owned by the University.*

Discussion: Table 2 outlines the campus-wide lot coverage for Seattle Pacific University. As shown, the existing lot coverage is 24.0 percent.

As noted previously, Seattle Pacific University currently has two pending projects to be constructed – in addition to the proposed ***Ashton Parking Lot Expansion***. Table 2

²⁵ SMC 23.69.008.

²⁶ pg. 43

²⁷ pg. 43

²⁸ Seattle Pacific University’s *Adopted MIMP* notes that: “(L)ot coverage by above grade structures shall not exceed thirty (30) percent for the entire campus area, excluding street rights-of-way and other property not owned by the University(;)” and “(L)ot coverage is calculated over the entire MIO District and shall not apply individually to campus sectors, building sites and lots.”

presents an overview of each project within the context of the overall campus and the cumulative effect that completion of each project would have on the campus-wide lot coverage percentage. As shown, with the addition of the *Irondale Residence Hall*, *University Center*, and the proposed ***Ashton Parking Lot Expansion***, the campus-wide lot coverage would change from 23.9 percent (existing) to 25.8 percent. Even with the proposed ***Ashton Parking Lot Expansion*** and the University's two other pending MUP projects, the University would remain within the prescribed 30 percent lot coverage requirement.

Table 2
Campus Lot Coverage – Existing and Projected

Parameter ²⁹	Square Footage	Percentage
Total Campus Area Owned by SPU	1,725,706	100.0%
Maximum Allowed Campus-Wide Lot Coverage, per the <i>Adopted</i> MIMP	517,712	30.0%
Existing Campus-Wide Lot Coverage³⁰	413,934	24.0%
Cumulative Campus-Wide Lot Coverage <u>with</u> the approved <i>Irondale Residence Hall</i>	421,273 ³¹	24.4%
Cumulative Campus-Wide Lot Coverage <u>with</u> the approved <i>University Center</i>	452,744 ³²	26.2%
Cumulative Campus-Wide Lot Coverage <u>with</u> the addition of the proposed <i>Ashton Parking Lot Expansion</i>	445,832 ³³	25.8%

Open Space (Adopted MIMP IV-K³⁴): *Open Space within a Major Institution Overlay zone with an adopted MIMP applies to the entire campus – not just the site of a specific development project. Seattle Pacific University's minimum open space requirement is 40 percent of the area within the MIO that is owned by the University.*³⁵

²⁹ Each proposed project builds on the previous to indicate the cumulative impact.

³⁰ This includes the recently completed *West Cremona Modular Classrooms*.

³¹ Includes demolition of four structures with a combined building footprint of 3,798 sq.ft. and construction of the proposed *Irondale Residence Hall* (11,137 [proposed] less 3,798 [existing] = 7,339 net sq.ft.; therefore, 7,339 + 413,934 = 421,273 sq.ft.)

³² Includes demolition of six structures with a combined building footprint of 15,784 sq.ft. and construction of the proposed *University Center* complex with a building footprint of 47,255 sq.ft. (47,255 [proposed] less 15,784 [existing] = 31,471; 31,471 + 421,273 = 452,744 sq.ft.)

³³ Includes demolition of four structures with a combined building footprint of 6,912 sq.ft.; no replacement building structure would occur (452,744 - 6,912 = 445,832 sq.ft.)

³⁴ MIMP, pg. 44

³⁵ Calculated over the entire MIO District; does not apply to individual campus sectors, building sites or lots. Open space includes: landscaped areas, walkways, plazas, malls and sports fields; open space does not include: roadways, parking areas and service areas.

Discussion: Table 3 outlines campus-wide open space for Seattle Pacific University. As shown, the existing open space is 47.3 percent of the total campus area.

Table 3 presents an overview of the two recently-approved projects (*Irondale Residence Hall* and *University Center*) together with the proposed ***Ashton Parking Lot Expansion*** -- within the context of the overall campus. The information provided examines the cumulative effect that completion of each would have on campus-wide open space. As shown, with the addition of *Irondale Residence Hall*, *University Center* and the proposed ***Ashton Parking Lot Expansion***, the campus-wide open space would change from 47.2 percent (existing) to 44.3 percent. Even with the proposed ***Ashton Parking Lot Expansion*** and the University's two recently-approved projects, Seattle Pacific University would remain above the prescribed 40 percent minimum open space requirement.

Table 3
Campus Open Space – Existing and Projected

Parameter	Square Footage	Percentage
Total Campus Area Owned by SPU	1,725,706	100.0%
Minimum Allowed Campus-Wide Open Space, per the <i>Adopted MIMP</i>	690,282	40.0%
Existing Campus-Wide Open Space	814,188 ³⁶	47.2%
Cumulative Campus-Wide Open Space <u>with</u> the addition of the approved <i>Irondale Residence Hall</i>	804,619 ³⁷	46.6% ³⁸
Cumulative Campus-Wide Open Space <u>with</u> the addition of the approved <i>University Center</i>	776,557 ³⁹	45.0% ⁴⁰
Cumulative Campus-Wide Open Space with the addition of the proposed <i>Ashton Parking Lot Expansion</i>	764,286 ⁴¹	44.3% ⁴²

Environmentally Critical Areas – Section I of this EIS Addendum notes that an area proximate to the project site is designated by the City as an Environmentally Critical Area (ECA) due to steep slopes and landslide potential.

³⁶ **Existing:** 413,934 (Table 2) + 497,584 (campus parking, drives, etc.) = 911,518; 1,725,706 (campus area) – 911,518 = 814,188; 814,188/1,725,706 = 47.1%

³⁷ With ***Irondale***: 421,273 sq.ft. (campus-wide lot cov. adjusted for *Irondale Residence Hall* – Table 2) + 499,814 sq.ft. (campus-wide drives/parking, etc.) = 921,087 sq.ft.; 1,725,706 (campus area) – 921,087 = 804,619 sq.ft.;

³⁸ 804,619/1,725,706 = 46.6%

³⁹ With ***University Center***: 452,744 sq.ft. (campus-wide lot cov. adjusted for *University Center* -- Table 2) + 496,405 sq.ft. (campus-wide drives/parking, etc. adjusted for project) = 949,149 sq.ft.; 1,725,706 (campus area) – 949,149 = 776,557 sq.ft.

⁴⁰ 776,557 /1,725,706 = 45.0%

⁴¹ With ***Ashton***: 445,832 sq.ft. [(campus-wide lot cov. adjusted for *Ashton* --Table 2) + 515,588 sq.ft. [campus-wide drives/parking, etc. adjusted for project]] = 961,420 sq.ft.; 1,725,706 (campus area) – 961,420 = 764,286 sq.ft.

⁴² 764,286 /1,725,706 = 44.3%

Discussion: The *Proposed Action* has been designed to comply with the City's ECA requirements. The northeast-facing slope north of the proposed parking lot has an average slope of 45 percent. All proposed construction would maintain a 15-foot minimum setback from the top of the slope.

Landscaping Requirements (Adopted MIMP IV-J⁴³) – ***The Land Use Code requirements of the underlying zoning for landscaping of surface parking shall apply, provided that DCLU may waive screening and internal landscaping requirements where the director finds an overriding safety issue.***⁴⁴

Discussion: The ***Ashton Parking Lot Expansion*** has been designed to comply with the City's landscaping requirements for parking lots.

Vehicle and Bicycle Parking Requirements (Adopted MIMP IV-R & S⁴⁵): ***The amount of parking provided within the MIO boundaries shall be no less than the minimum requirements of SMC 23.54.016 and no greater than the maximum requirements, provided that additional parking may be provided in accordance with City standards for non-university uses located within the MIO District.***

Discussion: As noted in *Section I* of this EIS Addendum, 100 parking spaces would be provided as part of the ***Ashton Parking Lot Expansion***. This represents a net increase of 68 spaces.

Consistent with the University's MIMP and provisions of the City's Land Use Code, parking is addressed campus-wide and not on a project-by-project basis. In addition, campus parking is determined based on a minimum and a maximum amount of parking. See **Table 4**.

⁴³ MIMP, pg. 43

⁴⁴ DCLU is the former name for Seattle's Department of Planning and Development (DPD).

⁴⁵ MIMP, pg. 46

Table 4
Projected Parking Requirements – 2013

Long-Term Parking	Parking Rate	Population/ Amount	% of Commuter Population Present at 55%		
			Adjusted Population	Min. Req.	Max. Req.
Commuter Students	15%	1,448 ¹	831	125	168
Employees	30%	605 ²	605	181	245
Resident Students (excludes unmarried apartments)	25%	1,738	1,738	434	586
Married Student Apartment Units	100%	18	18	18	24
Total				758	1,024
Short-Term Parking			Adjusted Population	Min. Req.	Max. Req.
Maximum Commuter Students Present at Peak	5.00	1,448	831	42	56
Theater, Auditorium, Assembly Hall, Sports (per fixed seat)	0.10	2,760 ³	2,760	276	373
Gwinn Commons (1 space per 200 sf assembly area)	0.005	5,352 ³	5,352	27 ⁴	36
Proposed University Center (per fixed seat)	0.10	1,100	1,100	110	149
Total				454	613
Total Required Parking Supply				1,213	1,637

Source: Transpo Group, 2012.

1. Population estimated based on registrations for 2014 and includes a maximum of 55 graduate students present at peak period.
2. Future staff estimated as a proportional increase over 2009, reflective of the increase in student population for the same time period
3. Includes 247 seats in McKinley Auditorium, and 2,513 seats in Brougham Pavilion.
4. 27 spaces required for 5,352 sf with 1 space per 200 sf.

The existing campus supply, plus the 68 spaces for the *Irondale Residence Hall* project and plus the net increase of 68 spaces associated with **Ashton**, and adjustments for the Robbins Apartments and 604 West Cremona, amounts to 1,490 parking spaces, which is within the required range for parking, based on City requirements. Sixty-five parking spaces were envisioned for this area of campus as part of the MIMP; the net increase of 68 spaces for **Ashton** (100 proposed less 32 existing) represents an increase of three parking spaces over the amount projected in the MIMP for this portion of campus. The **Ashton Parking Lot Expansion**, therefore, would be consistent with the parking requirement.

With regard to bicycle parking, standards⁴⁶ outlined in the University's *Adopted MIMP* are the same as the City's Land Use Code requirements (23.54.016 B4). The required minimum number of spaces is equal to 10% of the maximum number of students and 5% of the number of employees present at peak hour (refer to **Table 4**). This equates to a required minimum number of bicycle parking spaces of 319; Seattle Pacific University currently has approximately 320 bicycle parking spaces with the recent addition of bicycle parking

⁴⁶ MIMP, IV - S

associated with the *West Cremona Modular Classrooms* project. The approved *Irondale Residence Hall* will provide 61 additional bicycle parking spaces, and the approved *University Center* project will provide an additional 50 bicycle parking spaces for a combined increase of approximately 111 bicycle spaces for a total of 431 campus-wide bicycle parking spaces. As such, the amount of campus-wide parking that has been approved far exceeds the minimum number of bicycle parking spaces that are required. No existing bicycle parking would be displaced.

The following is a discussion of the proposed project's relationship to applicable City plans, policies, and regulations.

City of Seattle Major Institution Overlay Policies

Many applicable *Comprehensive Plan* policies were addressed within the *MIMP* EIS. The Major Institution Overlay policies identified in the *MIMP* EIS have since been incorporated within goals and policies of the *Land Use Element* of the *Seattle Comprehensive Plan*. The following is a discussion of the Major Institutions goals and policies from the *Comprehensive Plan* that are relevant to the proposed project:

Goals

LU G32 *Maximize the public benefits of major institutions including health care and educational services, while minimizing the adverse impacts associated with development and geographic expansion.*

Policies

LU 182 *Establish Major Institution Overlays (MIO) to permit appropriate institutional development within boundaries while minimizing the adverse impacts associated with development and geographic expansion. Balance the public benefits of growth and change for major institutions with the need to maintain the livability and vitality of adjacent neighborhoods. Where appropriate, establish MIO boundaries so that they contribute to the compatibility between major institution areas and less intensive zones.*

Discussion: The proposed project would be developed within the MIO boundary, consistent with the intent of the Adopted MIMP and consistent with development standards approved by the MIMP. The proposed ***Ashton Parking Lot Expansion*** would enable the University to better meet its parking demands. Project design and the proposed landscaping are intended to integrate the new parking lot into the fabric of the University. The new parking area would be near the southwest boundary of the University.

LU 187 *Encourage significant community involvement, monitoring, implementation and amendment of major institution master plans, including the establishment of citizen's advisory committees containing community and major institution representatives.*

Discussion: The proposed ***Ashton Parking Lot Expansion*** would incorporate public input and participation as part of the MUP review process both in terms of the MUP and involvement by the University's Standing Advisory Committee. Development standards for the proposed project were approved in the Adopted MIMP and the parking lot would meet MIMP standards.

LU 193 Apply the development standards of the underlying zoning classification for height, density, bulk, setbacks, coverage and landscaping for institutions to all major institution development, except for specific standards altered by a master plan.

Discussion: The proposed ***Ashton Parking Lot Expansion*** would meet all applicable development standards.

LU 195 Establish minimum parking requirements in MIO districts to meet the needs of the major institution and minimize parking demand in the adjacent areas. Include maximum parking limits to avoid unnecessary traffic in the surrounding areas and to limit the use of single occupancy vehicles (SOV)

Discussion: The proposed parking lot would further SPU's ability to meeting demands for on-campus parking.

Seattle Municipal Code

SEPA Compliance: Chapter 25.05, Seattle Municipal Code (SMC) implements the State Environmental Policy Act (SEPA) and authorizes the Department of Design, Construction and Land Use (now known as the Department of Planning and Development) to grant, condition or deny construction and use permit applications for public or private proposals that are subject to environmental review. This authority is exercised based on adopted City policies, plans, rules or regulations set forth in Chapter 25.05, SMC.

Discussion: This EIS Addendum has been prepared consistent with provisions of SMC 25.05. DPD has directed the scope of the environmental analysis. In addition, the MUP Analysis and Decision for this project will address the City's decision with regard to SEPA and zoning compliance and the decision will be conditioned to mitigate probable adverse environmental impacts that are identified in the EIS Addendum.

Tree Preservation -- Chapter 25.11 and Director's Rule 16-2008 provide a means for protecting outstanding trees (or Exceptional Trees) in Seattle, especially on sites undergoing development. Subsections of Chapter 25.11, which would apply to the Proposed Action, include:

- SMC 25.11.080 provides guidance for tree protection on sites undergoing development in Commercial Zones (Seattle Pacific University's Major Institution Overlay Zone has the same zoning requirements as Commercial Zones).
 - A. If an Exceptional Tree is determined to be located within a project site in this zoning area, the project:
 1. Would be required to go through administrative design review at the City; and
 2. The Director of DPD may permit an exceptional tree to be removed only if the applicant demonstrates that protecting the tree by avoiding the development in the tree protection area could not be achieved through various development standard departures (SMC 23.41.012) or a reduction in the parking requirements (SMC 23.54.015).

- B. If a tree over 2 ft. in diameter (measured 4.5 feet above the ground) is located within a project site in this zoning area, the project:
1. Would be required to identify all trees over 2 ft. in diameter on site plans; and
 2. May request modification of development standards in the same manner as described in A.2. above.
- SMC 25.11.090 provides requirements for tree replacement and site restoration. This section states that exceptional trees and trees over 2 ft. in diameter that are removed in association with development shall be replaced by one or more new trees, as approved by the City. No tree replacement would be required if the tree is hazardous, unhealthy or relocated to another suitable planting site approved by the City.

Director's Rule 16-2008

Director's Rule 16-2008 (DR16-2008) clarifies SMC 25.11 for the purpose of determining the value of outstanding trees on sites undergoing environmental review, in order to establish appropriate tree protection mitigating measures. This rule defines standards and procedures for identifying "exceptional trees", pursuant to SMC 25.11.

The policy articulated in SMC 25.11 calls for protecting three categories of trees and/or vegetation where development would reduce or damage:

1. rare, uncommon, unique or exceptional plant or wildlife habitat; or
2. wildlife travelways; or
3. habitat diversity for species (plants or animals) of substantial aesthetic, educational, ecological or economic value.

DR 16-2008 states that exceptional trees would be considered under the first and third categories listed above during environmental assessment.

According to DR 16-2008, an exceptional tree is a tree that meets one of the two following criteria (more details about these two categories is provided below):

1. Is designated by Plant Amnesty in partnership with the City of Seattle as a Class AAA-1 Heritage Tree; or
2. Is rare or exceptional by virtue of its size, species, condition, cultural/historic importance, age and/or contribution as part of a grove of trees as determined by method discussed below.

Discussion: As noted in *Section I* of this EIS Addendum, there are four trees on the project site including two Norway spruce, one Bigleaf maple and one Shore pine. It is proposed that the 12" diameter Shore pine be retained and that the following trees be removed.

- 14-inch Bigleaf Maple (*Acer macrophyllum*);
- 12-inch Blue Spruce (*Picea pungens*); and the
- 9-inch Blue spruce (*Picea pungens*).

DR 16-2008 identifies numerous native and non-native trees with a diameter of certain dimensions should be considered as Exceptional. Blue Spruce trees are not among the species specifically noted. DR 16-2008 indicates that for those species that are not listed in that director's rule, the threshold diameter "shall be 24" or 75% of the largest documented diameter for a tree of that species in Seattle, whichever is less, as noted in Trees of Seattle, 2nd edition by Arthur Lee Jacobson." That reference indicates that the largest known species of Blue Spruce in Seattle has a diameter of approximately 3 ft. 5 inches. Therefore, the 24-inch diameter applies as the threshold for the Blue Spruce, as this is less than (.75 X 41"). The two trees on-site have an estimated diameter of 12 inches and 9 inches respectively. As such, they are below the 24-inch threshold and would not be considered an Exceptional Tree per DR 16-2008.

Also, with regard to the 14-inch diameter Bigleaf Maple, it too falls below the 24-inch minimum threshold to be considered for Exceptional status, per DR 16-2008.

Additional information concerning the three trees that are to be removed in conjunction with this project is contained in the MUP project file (#3009946).

B. ENERGY / GREENHOUSE GAS EMISSIONS

MIMP Final EIS

Potential impacts related to greenhouse gas emissions were not a required technical analysis at the time the *MIMP* Final EIS was prepared. The *MIMP* Final EIS did, however, address energy-related impacts associated with the proposed Science Building, which was the one planned projects that was analyzed as part of that EIS.

EIS Addendum – Project Impacts

The following provides an overview of greenhouse gas emissions (GHG) emissions, together with an analysis of GHG emissions associated with the proposed ***Ashton Parking Lot Expansion*** project.

Background

The global climate is continuously changing, as evidenced by repeated episodes of warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. Scientists have observed, however, an unprecedented increase in the rate of warming in the past 150 years. This recent warming has coincided with the global Industrial Revolution, which resulted in widespread deforestation to accommodate development and agriculture and an increase in the use of fossil fuels which has released substantial amounts of greenhouse gases into the atmosphere.

Greenhouse gases such as carbon dioxide, methane and nitrous oxide trap heat in the atmosphere and are emitted by both natural processes and human activities. The accumulation of GHG in the atmosphere affects the earth's temperature. While research has shown that Earth's climate has natural warming and cooling cycles, evidence indicates that human activity has elevated the concentration of GHG in the atmosphere beyond the level of naturally occurring concentrations resulting in more heat being held within the atmosphere. The Intergovernmental Panel on Climate Change (IPCC), an international group of scientists from 130 governments has concluded that it is "very likely" - a probability listed at more than 90 percent - that human activities and fossil fuels explain most of the warming over the past 50 years."

GHG emissions associated with development projects are typically derived from several sources, including:

- extraction, processing, transportation, construction and disposal of materials and landscape disturbance; these are referred to as Embodied Emissions;
- energy demands created by the development once operational; these are Energy Emissions; and
- transportation demands created by the development once it is operational; these are Transportation Emissions.

Regulatory Framework

State of Washington

In February of 2007, Executive Order No. 07-02 was signed by the Governor establishing goals for Washington regarding reductions in climate pollution, increases in jobs, and reductions in expenditures on imported fuel.⁴⁷ This Executive Order established Washington's goals for reducing greenhouse gas emissions as the following: to reach 1990 levels by 2020, 25 percent below 1990 levels by 2035 and 50 percent below 1990 levels by 2050. This order was intended to address climate change, grow the clean energy economy and move Washington toward energy independence.

In 2007, the Washington legislature passed SB 6001, which among other things, adopted the Executive Order No. 07-02 goals into statute.

In 2008, the Washington Legislature built on SB 6001 by passing E2SHB 2815, the Greenhouse Gas Emissions Bill. While SB 6001 set targets to reduce emissions, the E2SHB 2815 made those state-wide requirements (see RCW 70.235.020) and directed the state to submit a comprehensive greenhouse gas reduction plan to the Legislature by December 1, 2008. As part of the plan, the Department of Ecology was mandated to develop a system for reporting and monitoring greenhouse gas emissions within the state and a design for a regional multi-sector, market-based system to reduce statewide greenhouse gas emissions consistent with the requirements in RCW 70.235.020.

In 2008,⁴⁸ the Department of Ecology issued a memorandum stating that climate change and greenhouse gas emissions should be included in all State Environmental Policy Act (SEPA) analyses and committed to providing further clarification and analysis tools. No regulatory guidance regarding thresholds for significance has been issued to date, however.

In 2009, Executive Order 09-05 was signed ordering Washington State agencies to reduce climate-changing greenhouse gas emissions, to increase transportation and fuel-conservation options for Washington residents, and protect the State's water supplies and coastal areas. The Executive Order directs state agencies to develop a regional emissions reduction program; develop emission reduction strategies and industry emissions benchmarks to make sure 2020 reduction targets are met; work on low-carbon fuel standards or alternative requirements to reduce carbon emissions from the transportation sector; address rising sea levels and the risks to water supplies; and, increase transit options, such as buses, light rail, and ride-share programs, and give Washington residents more choices for reducing the effect of transportation emissions.

On December 1, 2010, the Department of Ecology adopted Chapter 173-441 WAC – *Reporting of Emission of Greenhouse Gases*. This rule aligns the State's greenhouse gas reporting requirements with EPA regulations, and requires facilities and transportation fuel suppliers that emit 10,000 metric tons carbon dioxide equivalents (MTCO₂e) or more per year, to report their GHG emissions to Ecology. Requirements for reporting are to begin on January 1, 2012.

⁴⁷ http://www.governor.wa.gov/execorders/eo_07-02.pdf

⁴⁸ Manning, Jay. RE: Climate Change - SEPA Environmental Review of Proposals, April 30, 2008.

City of Seattle

In 2007, the City Council adopted *Comprehensive Plan* goals and policies,⁴⁹ related to achieving reductions in GHG emissions. In December 2007, the City Council adopted Ord. 122574, which requires City departments that perform environmental review under SEPA to evaluate greenhouse gas (GHG) emissions when reviewing permit applications for development. In April 2011, the City Council adopted Ordinance No. 123575 to amend the City's *Comprehensive Plan* (Section E on Environment) to provide that a forthcoming Climate Action Plan would identify strategies for reducing GHG and would include methods for reducing Vehicle Miles Traveled.

Project Analysis

The scale of global climate change is so large that the impacts of a project can only be considered on a "cumulative" basis. It is not anticipated that a single development project, even one of the scale of the *Proposed Action*, would have an individually discernable impact on global climate change. It is more appropriate to conclude that the ***Ashton Parking Lot Expansion*** project GHG emissions would combine with emissions across the City, County, State and planet to cumulatively contribute to global climate change.

Based on the City's methodology, **Table 5** is an estimate of GHG emissions associated with the *Proposed Action*.

Table 5
Estimated Greenhouse Gas Emissions
(MTCO₂e)⁵⁰

Land Use	Sq.Ft. (in thousands of sq.ft.)	Estimated Lifespan Emissions (MTCO₂e)
Pavement	30	<u>1,500</u>

Potential Mitigation Measures

No significant impacts are anticipated and no mitigation is necessary.

Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts are anticipated.

⁵⁰ MTCO₂e is defined as Metric Tonne Carbon Dioxide Equivalent; equates to 2204.62 pounds of CO₂. This is a standard measure of amount of CO₂ emissions reduced or sequestered. Carbon is not the same as Carbon Dioxide. Sequestering 3.67 tons of CO₂ is equivalent to sequester one ton of carbon.

C. AESTHETICS -- Urban Design (Height, Density and Scale)

MIMP Final EIS

The *MIMP* EIS described the general setting of the campus and noted that the west portion of the campus is located on a hillside sloping down toward the north and the east. Campus buildings are generally aligned with the existing street grid system, with the exception of W. Emerson St. and W. Nickerson St., which follow the old railroad and ship canal alignment. As indicated in the *MIMP* EIS, campus buildings include various architectural styles that reflect the long history of the University. Building materials vary as well with older buildings comprised of brick masonry, and more recent buildings using stucco, steel and glass. Landscaping includes deciduous street trees along most streets and a combination of deciduous and conifer trees, shrubs and lawn areas on-campus.

The *MIMP* EIS acknowledged policies in the Seattle Municipal Code that protect public views of significant natural and human features and indicated that protected scenic views in the vicinity of the campus include the Cascade Mountains and the Lake Washington Ship Canal. Nearby public viewpoints that were noted in the FEIS include Rodgers Park and Mayfair Park. No designated scenic routes are located within University's boundaries; the nearest such routes are the Ballard Bridge and its approaches to the west and the Fremont Bridge and its approaches to the east.

Light and glare was indirectly considered in the *MIMP* EIS in the context of land use and aesthetics. Existing sources of light and glare in the vicinity of the project site include light emanating from within buildings, exterior lighting on structures, street lighting, and light and glare associated with vehicular traffic traveling on streets and alleys proximate to the site.

EIS Addendum – Project Impacts

The campus setting and the area of the proposed parking lot expansion have not changed greatly from that described in the *MIMP* EIS. Four vacant, Seattle Pacific University-owned residential duplex buildings are located on the site, along with surface parking (32 spaces), open space/lawn and the vacated W Etruria Street. West of the project site is Ashton Hall's existing parking lot. Ashton Hall, a student residence hall, is located north of the parking lot. Campus open space is located to the east and the south of the *Proposed Action*. Single and multi-family residences are located on the east side of 5th Ave. W. The current appearance of the site is of the existing structures, driveways, and surface parking, as well as associated lawns and plantings.

The proposed ***Ashton Parking Lot Expansion*** incorporates landscaping to better integrate the parking lot within the campus and the surrounding area and to meet DPD development standards.

With the addition of the proposed ***Ashton Parking Lot Expansion***, the visual setting would change by extending the presence of the existing parking lot to the east. The University's campus establishes the dominant character adjacent to the site and the proposed parking lot will contribute to and further support the campus mission. Views of the existing buildings would be replaced by that of a landscaped parking lot. The proposed landscape

elements are expected to allow the parking lot to blend well with the existing site and effectively integrate the parking area into the campus setting.

The ***Ashton Parking Lot Expansion*** would result in light and glare-related impacts similar in nature to that found on the adjacent existing Ashton Hall parking lot. Namely, light would emanate from stationary and mobile sources, including: security parking standards, and light and glare associated with vehicles maneuvering on-site and in proximity to the site. The proposed project has been designed to minimize reflective glare with exterior lighting fixtures by directing light downward and away from off-site land uses.

Potential Mitigation Measures

The *Proposed Action* would adhere to current, applicable City Land Use Code requirements and provisions of the Adopted MIMP. No significant aesthetic-related impacts are anticipated and no specific mitigation is necessary.

Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts are anticipated relative to urban design.

D. HISTORIC RESOURCES

MIMP Final EIS

The *MIMP* EIS indicated that no known archaeological resources have been identified within the SPU site area.

The University has occupied its current location since 1891, and residential uses have predominated adjacent to the campus for nearly as long. According to the FEIS, only one building on the campus is officially listed as a historic building -- Alexander Hall. That building, originally called the Seattle Seminary Building, was constructed in 1893 and is listed in the Washington Heritage Register; it was designated in December 1970.

The *MIMP* EIS noted that the following structures near Seattle Pacific University are on the Washington State Register and/or the National Register of Historic Places:

- Hiram M. Chittenden Locks;
- Lake Washington Ship Canal Historic District;
- Fremont Bridge; and
- George Washington Memorial Bridge (Aurora Bridge).

The *MIMP* EIS also indicated that no City designated Landmarks were located on the Seattle Pacific University Campus or in the immediate vicinity. It did note, however, that three Landmarks are within one-half mile of campus: the Fremont Bridge, the Fremont Trolley Barn/Red Hook Ale Brewery, and the George Washington Memorial Bridge (Aurora Bridge).

EIS Addendum

As noted previously, there are four University-owned duplexes located on the project site. All four residential structures were constructed in 1957. Development projects that involve demolition of a building or buildings that are over fifty years of age are required to include an analysis of the characteristics of the existing structure(s), which is reviewed by staff of the Seattle Department of Neighborhoods (Landmarks) to determine whether the building(s) qualify as City of Seattle Landmarks.

The City of Seattle's Landmarks Preservation Ordinance (SMC 25.12) requires that a property, object or site be more than 25 years old and "have significant character, interest or value, as part of the development, heritage or cultural characteristics of the City, state or nation." It must also have integrity or the ability to convey its significance, and meet one or more of six designation criteria. The following is an overview of the analysis associated with each of the four buildings; the complete historical analysis is contained in *Appendix C* to this EIS Addendum.

Seattle Pacific University is the original and current owner of the four buildings. The three duplexes that are grouped together on the north side of the vacated W. Etruria St. are associated with the architectural firm of W.G. Brust & Associates, while the other duplex is associated with the architectural firm of Durham, Anderson & Freed. The units are single-story residential buildings composed of painted concrete masonry units, measuring approximately 36 feet by 24 feet. An "insulite" roofing system and a three-ply built-up roofing system and gravel

shelters the interior and the carport. Stylistically, the buildings are a simple interpretation of the ranch style of housing design. The buildings are mirrored about a central firewall.

The buildings represent relatively intact vernacular, modern, ranch-style homes. They are not, however, significant representations of an architectural style or associated with a historically significant person, nor are they a significant part of the development of the history of Seattle. None of the buildings appear to meet the criteria necessary for designation as a City of Seattle Landmark.

Potential Mitigation Measures

No significant impacts are anticipated from the proposed demolition of the four duplexes, and no mitigation is necessary.

Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts are anticipated.

E. TRANSPORTATION and PARKING

This section of the EIS Addendum evaluates possible transportation and parking-related impacts associated with the *Proposed Action*.

MIMP Final EIS

Seattle Pacific University's Major Institution Master Plan (MIMP), which was adopted in 2000, proposed the addition of 65 parking spaces in the vicinity of the existing lot. The ***Ashton Parking Lot Expansion*** would add 100 new parking spaces, which represents a net increase of 68 spaces over the existing parking on-site (32 spaces) -- and 3 more spaces than was projected for this area in the MIMP EIS. Note that the MIMP proposed a total net increase of 970 to 1,170 parking spaces, in several areas within the campus, thus resulting in a total supply of 1,700 to 1,900 parking spaces.

EIS Addendum – Project Impacts

Approximately 310 parking spaces have been added to the campus parking supply since adoption of the MIMP. Another 68 parking spaces will be added with the development of housing on the *Irondale* block, which will result in a campus-wide supply of approximately 1,418 parking spaces. The addition of the proposed expansion to the *Ashton* lot (68 net new spaces) would bring the total campus parking supply to 1,486 parking spaces. While there are three more spaces proposed for the *Ashton* Hall location than specified in the EIS, several of the other potential parking expansions are not yet planned. The increase at *Ashton* would not mean that the ultimate parking supply would exceed the future parking supply disclosed in the MIMP and studied in the MIMP EIS.

Trip Generation

Parking spaces are not in and of themselves trip generators. It is the use that they serve that is ultimately responsible for the trip generation to and from the parking spaces. Vehicle trips associated with these new spaces are dependent on an understanding of who will primarily be using these spaces. Parking demand and trip generation was calculated in the MIMP EIS for the following classifications:

- Resident Students;
- Commuter Students;
- Faculty and Staff; and
- Visitors.

The analysis of trip generation related to the proposed new parking spaces assumes that the parking spaces would be used by resident students. Thus, trip generation rates for resident students are used as the basis for estimating trip generation.

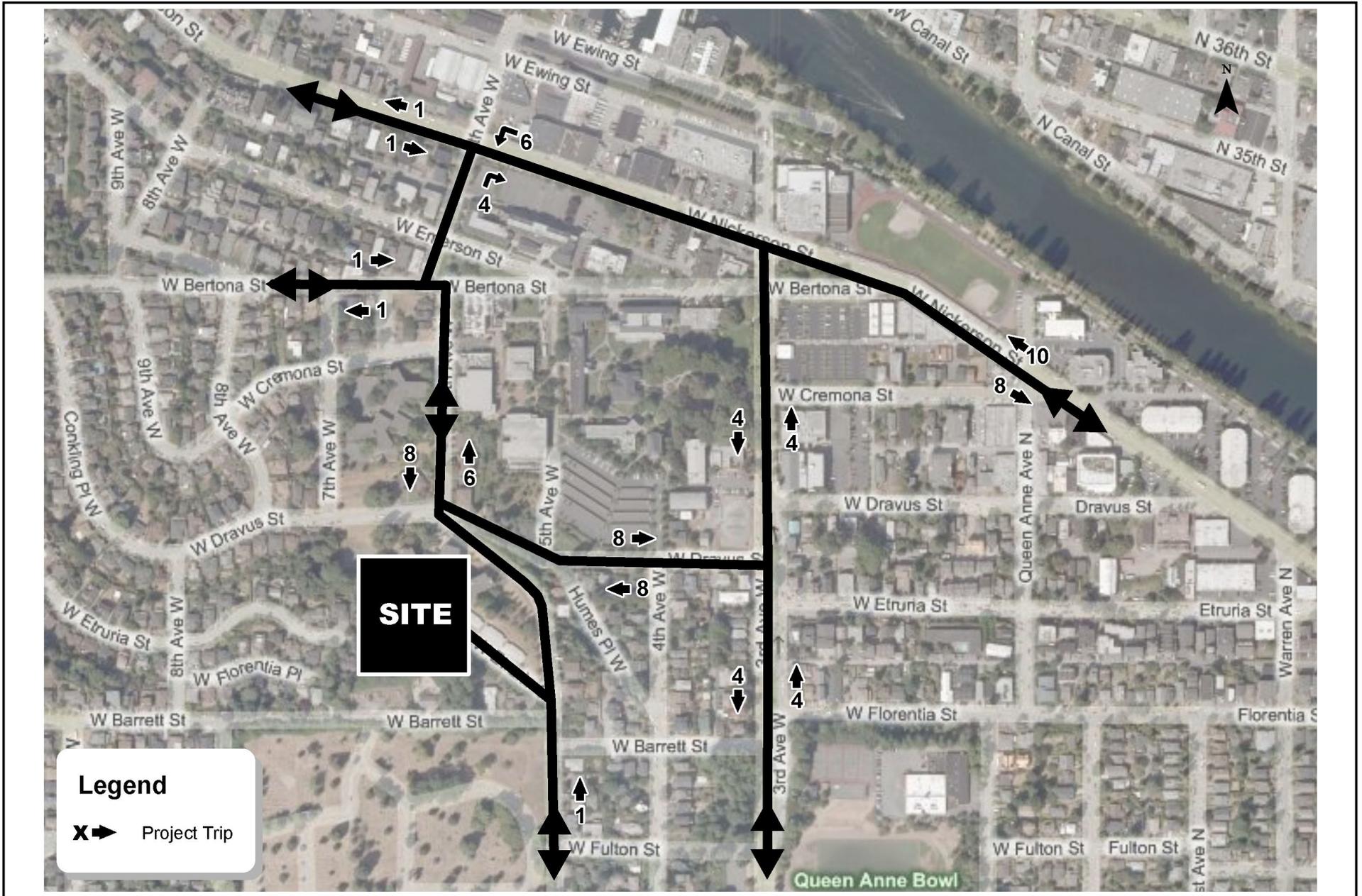
The resident student trip generation rate was derived from student intercept surveys and counts at driveways exclusively serving resident student parking. The base car ownership rate for resident students was 39%. Therefore, the proposed addition of *Ashton's* 68 parking spaces could accommodate approximately 178 resident students. For resident student parking lot access counts, there was an inbound trip rate equivalent to 24% of the parking supply which

was served and an outbound trip rate equivalent to 20% of the parking supply. This means that the additional 68 spaces would generate approximately 17 inbound trips and 14 outbound trips during the PM peak hour. Of those, about one each of the inbound and outbound trips would be attributable to the three parking spaces additional to the 65 identified in the MIMP EIS.

Trip Assignment

Distribution of these trips is primarily derived from the trip generation patterns assumed in the MIMP Final EIS traffic analysis, which were based on student and staff zip codes and roadway traffic volumes. Specifically, for the Ashton lot, trip distribution is impacted by the right-turn restriction for eastbound vehicles approaching 5th Avenue W from the lot. This restriction, which forces exiting vehicles to turn left out of the parking lot, reduces vehicle traffic travelling through neighborhoods south of the campus. **Figure 8** provides the projected trip distribution / assignment for trips that would be coming from or going to the additional spaces provided for Ashton during the weekday PM peak hour.

Seattle Pacific University Ashton Parking Lot Expansion EIS Addendum



Source: Transpo Group, 2008

F. CONSTRUCTION

This section of the EIS Addendum evaluates possible construction impacts associated with the *Proposed Action* -- specifically air quality, noise, and transportation/parking.

MIMP Final EIS

The *MIMP* Final EIS addressed air quality, plants and animals, noise, energy, and transportation and parking relative to construction process. Each of these factors was discussed in broad, campus-wide terms, because of the programmatic/non project-specific nature of the *MIMP* EIS. As such, no specific details were presented relative to construction-related activity associated with any site-specific development (e.g., the *Proposed Action*).

EIS Addendum – Project Impacts

The proposed ***Ashton Parking Lot Expansion*** is expected to generate short-term construction-related impacts. As noted, the *Proposed Action* is located on the north-end of Seattle's Queen Anne Hill on the campus of Seattle Pacific University. More specifically, the site is in the southwest corner of the campus and is bounded by 5th Ave. W. on the east and north, and W. Barrett St. on the South. The existing Ashton Hall parking lot is located to the west. The *Proposed Action* would involve development of a surface parking lot for resident students of Seattle Pacific University, with approximately 100 spaces and 30,000 sq.ft. of pavement.

As noted in the *Land Use* section of this EIS Addendum, the pattern of land use in the area surrounding the site includes campus housing and parking.

Site preparation, excavation and construction would generate short-term⁴⁶ environmental impacts including: noise and vibration, air quality, light and glare, and transportation. While the majority of all construction activity would occur during the daytime, at times it may be necessary for some construction activity to occur during evening hours. Such may be necessary to reduce the duration of the overall construction timeframe and/or because the City requires certain construction activities to occur at that time in order to lessen impacts to pedestrians and vehicles during the day. As such, construction activity associated with the *Proposed Action* would be noticeable to some adjacent land uses. The following evaluates potential construction-related impacts in terms of short-term noise/vibration, air quality, light/glare, and transportation-related impacts.

Noise/Vibration

MIMP Final EIS

The *MIMP* Final EIS noted that during construction of potential development sites, sound levels would temporarily increase in the vicinity of building sites and roadways used by construction vehicles accessing the construction sites. The increase in sound levels and vibration would depend upon the type of equipment being used, the duration of such use, and the proximity of the equipment to the property line (and sensitive land uses). Sound levels within 50 feet of

⁴⁶ For that portion of the approximately three-month construction timeframe that includes demolition, excavation and construction.

construction equipment often exceed the levels typically recommended for residential land uses and, in general, decrease at a rate of about 6 dBA for each doubling of distance from the noise source. Average noise levels associated with various construction equipment are listed in **Table 6**. For relative comparison, **Table 7** is a list of typical sound levels for a variety of activities.

Table 6
Typical Noise Levels from Construction Equipment⁴⁷

Equipment	Average Noise Level (dBA measured 50 ft. from the equipment)
Dump Truck (15-20 cu.yd. capacity)	91
Scraper	88
Backhoe	85
Concrete Mixer	85
Concrete Pump	82
Air Compressor	81
Bulldozer (D-8)	80
Generator	78
Pump	76

The Final EIS noted that construction-related noise could result in temporary annoyance and possibly increased speech interference proximate to campus buildings, open space, and residential uses in the vicinity of the construction sites. Construction-related noise, however, would be temporary in nature and was not expected to result in significant long-term impacts.

⁴⁷ United States EPA, 1971

**Table 7
Typical Sound Levels**

Noise Source/Activity	dBA
Aircraft Carrier Flight Deck Operations	140
Threshold of Pain.....	130 - 140
Fireworks	130
Jet Takeoff (200 ft. distance)	120
Jack Hammer.....	120
Auto Horn (3 ft. distance)	120
Chain Saw/Noisy Snowmobile	110
Jet Takeoff (2,000 ft. distance)	105
Lawn Mower, Power Tools (3 ft. distance)	85 - 100
Noisy Motorcycle (50 ft. distance)	100
Heavy Truck (50 ft. distance)	90
Quiet Snowmobile, Motorcycle (50 ft. distance).....	80
Busy Urban Street	80
Normal Automobile, Commercial Area	70
Seagulls and Crows	70
Normal Conversation (3 ft. distance)	60
Quiet Residential Area	50
Moderate Rainfall.....	50
Quiet Residence, Library	40
Bedroom at Night or Whisper.....	30
Background Level in a Concert Hall.....	30
Broadcasting Studio.....	10
Rustle of Leaves	10
Threshold of Hearing	0

Sources: EPA, 1978; EPA, 1972.

EIS Addendum – Project Impacts

The proposed **Ashton Parking Lot Expansion** would generate short-term construction-related noise. No significant long-term noise impacts, however, are anticipated.

Construction noise impacts associated with the *Proposed Action* would be similar to that described for the *MIMP* Final EIS. Construction activity would generate noise at the building site and on streets used by construction vehicles accessing the project site. It is anticipated that major sources of construction-related noise would involve demolition activity associated with removing the four existing residential structures and site preparation for the proposed parking lot.

Since the project site and surrounding area are located within the University’s Major Institution Overlay District, the maximum permissible sound level for receiving properties within 50 feet of the campus boundary line is 60 dBA between the hours of 10 PM and 7AM (weekdays) and 10 PM and 9 AM (weekends). Seattle’s Noise Code,⁴⁸ however, authorizes construction-related exceedances of the maximum permissible sound levels for certain types of equipment by certain

⁴⁸ SMC 25.08

amounts during certain time periods. Construction associated with the *Proposed Action* would comply with provisions of the City's Noise Code.⁴⁹

Potential Mitigation Measures

Noise from construction activities would be subject to the limits in the Seattle Noise Code (SMC 25.08) and construction contractors would be required to comply with provisions of this code. Measures that are proposed as part of construction mitigation would be similar to those associated with other campus projects, where residential and other sensitive land uses are located proximate to proposed development.

The following contain both general and specific mitigation measures that could be undertaken to minimize noise and vibration-related impacts during construction.

General Noise Mitigation Measures

Because of the proximity of potentially sensitive land uses near the project site, the following project-specific mitigation is proposed.

- Limit most construction-related activities to standard construction hours between 7 AM and 10 PM on weekdays and 9 AM – 10 PM on Saturdays. During some stages of the project, it is expected that a smaller second shift may work until midnight on weekdays, although work would be limited to activities that generate little noise (such as daily cleanup) and are within the 60 dBA limited of the Noise Code.
- Limit the use of noise impact-type equipment, such as pavement breakers, pile drivers, jackhammers, sand blasting tools and other impulse noise sources, to work activity between 8 AM and 5 PM on weekdays.
- Whenever appropriate, substitute hydraulic impact tools with electric models to further reduce demolition and construction-related noise and vibration.
- Limit loud talking, music, or other miscellaneous noise-related activities.
- Provide properly sized and maintained mufflers, engine intake silencers, and where necessary engine enclosures on operating equipment.
- Turn-off idling equipment.
- Truck haul routes to be jointly developed by the applicant, the Seattle Dept. of Transportation (SDOT) and DPD; SDOT will approve the routes established.

⁴⁹ SMC 25.08.

Specific Noise Mitigation Measures

Earthwork

- As necessary, deploy portable sound barriers around generators, compressors, tieback drill rigs, etc.
- As needed, construct temporary barriers of materials at least as dense as one-half-inch thick plywood with sound-dampening insulation.

Significant Unavoidable Adverse Impacts

While some construction-related noise and vibration impacts would be unavoidable, with the mitigation proposed and given the anticipated duration, none are considered to be significant.

Air Quality

MIMP Final EIS

While the *MIMP* EIS addressed air quality in terms of the then proposed Science Building, it did not evaluate air quality impacts associated with proposed projects because of the programmatic/non project-specific nature of the MIMP.

EIS Addendum – Project Impacts

Construction associated with the ***Ashton Parking Lot Expansion*** would generate localized air pollutants as a result of fugitive dust from site work, excavation and emissions from construction vehicles.

The primary types of pollutants generated during construction would be particulates and hydrocarbons. The principal source of particulates would be the site work and excavation activity. Gasoline or diesel-powered machinery used for demolition, excavation, and construction emit carbon monoxide and hydrocarbons. Such emissions, however, would be temporary in nature and localized to the immediate vicinity of the construction activity. Also, trucks transporting excavated earth and/or construction materials would emit carbon monoxide and hydrocarbons along truck haul routes used by construction vehicles. No construction activity or off-site construction-related truck movements are expected to cause violations of applicable ambient air quality standards.

Potential Mitigation Measures

Site development would adhere to Puget Sound Clean Air Agency's regulations and the City's construction best practices regarding demolition activity and fugitive dust emissions, including as necessary:

- during excavation, and construction, sprinkle debris and exposed areas to control dust;
- cover or wet transported earth material;
- provide quarry spall areas on-site at truck egress locations;

- wash truck tires and undercarriages prior to trucks traveling on campus/City streets;
- promptly sweep earth tracked or spilled onto campus/City streets;
- monitor truck loads and routes to minimize dust-related impacts;
- use well-maintained construction equipment and vehicles to reduce emissions from such equipment and construction-related trucks;
- avoid prolonged periods of vehicle idling; and
- schedule the delivery and removal of construction materials and heavy equipment to minimize congestion during peak travel times associated with adjacent streets.

Significant Unavoidable Adverse Impacts

While some construction-related air quality impacts would be unavoidable, with the mitigation proposed and given the anticipated duration, none are considered to be significant.

Light and Glare

***MIMP* Final EIS**

Because of the programmatic/non project-specific nature of the *MIMP* EIS, it did not address specific light and glare impacts related to construction activity.

EIS Addendum – Project Impacts

Construction of the proposed ***Ashton Parking Lot Expansion*** project may result in light and glare-related impacts both from stationary sources and mobile sources -- particularly at night and at times of the day/seasons of the year with low light levels.

Stationary sources of light include area lighting of the job site during days/times of low light levels. Such is necessary to meet safety requirements. While noticeable, such lighting is not expected to cause significant long-term impacts.

No significant light and/or glare-related impacts are anticipated in conjunction with mobile sources -- construction vehicles entering or exiting the site. Headlights of construction-related vehicles accessing the site would be noticeable; however, no significant off-site disruption is anticipated.

Potential Mitigation Measures

Construction-related lighting would be shielded and directed away from adjacent land uses.

Significant Unavoidable Adverse Impacts

While some construction-related light and glare impacts would be unavoidable, with mitigation and given the anticipated short-term duration, none are considered to be significant.

Transportation, Parking and Access

MIMP Final EIS

The *MIMP* EIS notes that construction-related transportation impacts would occur in varying degrees throughout the construction process. The *MIMP* EIS also notes that in the short term, construction activity could result in increased traffic due to construction worker vehicle trips, delivery of construction materials, and delivery or removal of soil required for fill or excavation.

EIS Addendum – Project Impacts

The presence of a temporary work force on-site would increase the demand for construction-worker parking nearby. It is anticipated that parking space at the existing Ashton Hall parking lot could accommodate a portion of this increased demand. In general, it is anticipated that construction workers would arrive at the construction site prior to the AM peak period and depart either prior to the PM peak period or after the PM peak period, depending upon specific work schedules.

Preliminary estimates indicate that a total of approximately 640 cubic yards (cy) of earth would be removed in conjunction with excavation for the proposed ***Ashton Parking Lot Expansion*** project. This amount of earthwork is estimated to generate approximately 64 loaded outbound truck trips and an additional 64 empty in-bound truck trips over the duration of excavation activity.⁵⁰ Assuming that the excavation process takes less than one week, it is estimated that approximately 12 to 16 outbound truck trips would occur each day with a corresponding 12 to 16 inbound truck trips. While excavation phase construction traffic may at times cause inconvenience to properties adjacent to the site and motorists on streets that border the project site, such impacts would be temporary.

Additional truck activity would occur during the construction of the parking lot, delivering construction equipment and materials to and from the site.

Potential Mitigation Measures

- The proponent would coordinate with SDOT to minimize impacts caused by construction vehicle traffic. A Construction Transportation Management Plan would be prepared to minimize disruption to traffic flow on adjacent streets and roadways. The Plan would include details on lane and sidewalk closures, construction haul routes and staging areas, and a traffic plan for truck deliveries/routes and construction workers. This plan would consider the need for special signage, flaggers, route definitions, flow of vehicles and pedestrians during construction and street cleaning.
- There is surface parking located adjacent to the project site at the existing Ashton Hall parking lot. It is anticipated that construction worker parking demand could be accommodated by existing university parking in the general vicinity of the project site - until the parking associated with the *Proposed Action* is usable. Conceivably, other

⁵⁰ This is based on the assumption that the hauling capacity of trucks that would be used would average, based on the water content of the soil, 10 cy. Therefore, the amount of material exported off-site would generate 640/10 approximates 64 loaded outbound truck trips + 64 inbound empty trucks = 128 total truck trips.

construction workers may park at greater distances from the project site and commute to the site via transit or carpool.

- Where existing sidewalks or walkways are temporarily closed during construction, alternative routes would be provided to maintain pedestrian circulation patterns proximate to the site.

Significant Unavoidable Adverse Impacts

While some construction-related transportation and parking impacts would be unavoidable, with the mitigation proposed and given the anticipated short-term duration, none of the impacts would be considered significant.

REFERENCES

References

- City of Seattle. City of Seattle Municipal Code, Chapter 25.05. *Environmental Policies and Procedures*.
- City of Seattle. City of Seattle Municipal Code, Chapter 25.08. *Noise Code*.
- City of Seattle. City of Seattle Municipal Code, Chapter 25.69. *Major Institution Overlay District*.
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- City of Seattle; Department of Planning and Development. 2008. *Directors Rule 16-2008*.
- City of Seattle. Department of Construction and Land Use. 1999a. Draft EIS for the *Seattle Pacific University Major Institution Master Plan*. May 6, 1999.
- City of Seattle. Department of Construction and Land Use. 1999b. Final EIS for the *Seattle Pacific University Major Institution Master Plan*. September 30, 1999.
- King County. Assessor data, Parcel number 337190-0005.
- Seattle Pacific University. 2000. Adopted – *Seattle Pacific University Major Institution Master Plan*. August 2000.
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- State of Washington. Washington Administrative Code, Chapter 197-11. *SEPA Rules*.
- U.S. Environmental Protection Agency; Office of Noise Abatement & Control. 1978. *Noise: A Health Problem*.
- U.S. Environmental Protection Agency; Office of Noise Abatement & Control. 1972. *Noise Pollution*.
- U.S. Environmental Protection Agency. 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*. Prepared by Bolt, Beranek and Newman (Contract 68-04-0047). December 31, 1971.

APPENDICES

APPENDIX A

**DISTRIBUTION & NOTIFICATION
LISTS**

DISTRIBUTION & NOTIFICATION LIST

Federal Agencies

U.S. Army Corps of Engineers, Seattle District
U.S. Environmental Protection Agency, Region X
U.S. Department of Housing & Urban Development
U.S. Department of Commerce – Economic Development Administration

State Agencies

Office of the Governor
Department of Archaeology and Historic Preservation
Department of Commerce
Department of Ecology
Department of Fish & Wildlife
Department of Social & Health Services
Department of Transportation

Regional

Department of Public Health – Seattle – King County
King County Department of Natural Resources and Parks
King County Department of Transportation, METRO
Puget Sound Clean Air Agency
Puget Sound Regional Council
Sound Transit

City

City Council
Department of Executive Administration
Department of Fire
Department of Police
Department of Neighborhoods, Major Institutions
Department of Neighborhoods, Historic Preservation
Department of Neighborhoods, Fremont Neighborhood Service Center
Department of Neighborhoods, Queen Anne-Magnolia Service Center
Department of Human Services
Department of Parks & Recreation
Department of Transportation
Law Department
Office of Economic Development
Seattle City Light
Seattle Public Utilities

Newspapers

Seattle Times
Daily Journal of Commerce
Queen Anne News
North Seattle Herald Outlook

Libraries

Seattle Public Library, Central Library
Seattle Public Library, Queen Anne Branch
Seattle Public Library, Fremont Branch
Seattle Pacific University Library

Seattle Pacific University Major Institution Master Plan Standing Advisory Committee (SAC)

Darlene Hickman
Nancy Ousley
Donald John Coney
Bob Drovda
Emily Evans
Douglas Jennings
Elaine King
Jay La Vassar
Douglas McNutt
Kim Orr

Seattle Pacific University's Major Institution Master Plan Citizen's Advisory Committee (CAC)

Individuals listed below were members of the CAC that was involved in assisting Seattle Pacific University to develop their existing Major Institution Master Plan. These are individuals that are not now serving on the University's SAC.

Susan Black
Ray Bowman
Tarah Ho
Cathy Jeney
David King
Ron Mason
Marvin Mayhle
Jo Ellen Watson
Dan Willis

Other Organizations and Individuals

Allied Arts of Seattle
Denise Derr
Jason-Thomas Eppel
Mike Finn
Fremont Chamber of Commerce, Wallingford Station
Fremont Neighborhood Council
Friends of Queen Anne
League of Women Voters, Land Use Chair
Neville G. Gladding and John R. Jones
Florence W. Helliesen
Laurie LeMay
Robert LeMay
Sharon LeVine
Margaret and Deems Okamoto
Queen Anne Chamber of Commerce
Queen Anne Community Council
Queen Anne Neighborhood Planning Committee
Seattle Sports Advisory Council

Philip W. Eaton, President, Seattle Pacific University
Dennis Weibling
Victor Moses
Donald W. Mortenson, Vice President, Business & Planning, Seattle Pacific University
David Church, Assistant Vice President, Facilities Management, Seattle Pacific University
Melanie Whitehead, Coordinator, Campus Planning & Development, Seattle Pacific University
Darrell W. Hines, Assistant to the Vice President, Special Projects, Seattle Pacific University
Thomas M. Walsh, Foster Pepper
Rolfe Kellor, Kellor Associates

APPENDIX B

GREENHOUSE GAS EMISSIONS
WORKSHEETS

Section I: Buildings

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

Section II: Pavement.....

Pavement.....		30.00				1500
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Total Project Emissions:

1500

City of Seattle Department of Planning and Development
SEPA GHG Emissions Worksheet
Version 1.7 12/26/07

Introduction

The Washington State Environmental Policy Act (SEPA) requires environmental review of development proposals that may have a significant adverse impact on the environment. If a proposed development is subject to SEPA, the project proponent is required to complete the SEPA Checklist. The Checklist includes questions relating to the development's air emissions. The emissions that have traditionally been considered cover smoke, dust, and industrial and automobile emissions. With our understanding of the climate change impacts of GHG emissions, the City of Seattle requires the applicant to also estimate these emissions.

Emissions created by Development

GHG emissions associated with development come from multiple sources:

- The extraction, processing, transportation, construction and disposal of materials and landscape disturbance (Embodied Emissions)
- Energy demands created by the development after it is completed (Energy Emissions)
- Transportation demands created by the development after it is completed (Transportation Emissions)

GHG Emissions Worksheet

This GHG Emissions Worksheet has been developed to assist applicants in answering the SEPA Checklist question relating to GHG emissions. The worksheet was originally developed by King County, but the City of Seattle and King County are working together on future updates to maintain consistency of methodologies across jurisdictions.

The SEPA GHG Emissions worksheet estimates all GHG emissions that will be created over the life span of a project. This includes emissions associated with obtaining construction materials, fuel used during construction, energy consumed during a buildings operation, and transportation by building occupants.

Using the Worksheet

1. Descriptions of the different residential and commercial building types can be found on the second tabbed worksheet ("Definition of Building Types"). If a development proposal consists of multiple projects, e.g. both single family and multi-family residential structures or a commercial development that consists of more than one type of commercial activity, the appropriate information should be estimated for each type of building or activity.

2. For paving, estimate the total amount of paving (in thousands of square feet) of the project.
3. The Worksheet will calculate the amount of GHG emissions associated with the project and display the amount in the "Total Emissions" column on the worksheet. The applicant should use this information when completing the SEPA checklist.
4. The last three worksheets in the Excel file provide the background information that is used to calculate the total GHG emissions.
5. The methodology of creating the estimates is transparent; if there is reason to believe that a better estimate can be obtained by changing specific values, this can and should be done. Changes to the values should be documented with an explanation of why and the sources relied upon.
6. Print out the "Total Emissions" worksheet and attach it to the SEPA checklist. If the applicant has made changes to the calculations or the values, the documentation supporting those changes should also be attached to the SEPA checklist.

Definition of Building Types

Type (Residential) or Principal Activity (Commercial)	Description
Single-Family Home	Unless otherwise specified, this includes both attached and detached buildings
Multi-Family Unit in Large Building	Apartments in buildings with more than 5 units
Multi-Family Unit in Small Building	Apartments in building with 2-4 units
Mobile Home.....	
Education	Buildings used for academic or technical classroom instruction, such as elementary, middle, or high schools, and classroom buildings on college or university campuses. Buildings on education campuses for which the main use is not classroom are included in the category relating to their use. For example, administration buildings are part of "Office," dormitories are "Lodging," and libraries are "Public Assembly."
Food Sales	Buildings used for retail or wholesale of food.
Food Service	Buildings used for preparation and sale of food and beverages for consumption.
Health Care Inpatient	Buildings used as diagnostic and treatment facilities for inpatient care.
Health Care Outpatient	Buildings used as diagnostic and treatment facilities for outpatient care. Doctor's or dentist's office are included here if they use any type of diagnostic medical equipment (if they do not, they are categorized as an office building).
Lodging	Buildings used to offer multiple accommodations for short-term or long-term residents, including skilled nursing and other residential care buildings.
Retail (Other Than Mall).....	Buildings used for the sale and display of goods other than food.
Office	Buildings used for general office space, professional office, or administrative offices. Doctor's or dentist's office are included here if they do not use any type of diagnostic medical equipment (if they do, they are categorized as an outpatient health care building).
Public Assembly	Buildings in which people gather for social or recreational activities, whether in private or non-private meeting halls.
Public Order and Safety	Buildings used for the preservation of law and order or public safety.
Religious Worship	Buildings in which people gather for religious activities, (such as chapels, churches, mosques, synagogues, and temples).
Service	Buildings in which some type of service is provided, other than food service or retail sales of goods
Warehouse and Storage	Buildings used to store goods, manufactured products, merchandise, raw materials, or personal belongings (such as self-storage).
Other	Buildings that are industrial or agricultural with some retail space; buildings having several different commercial activities that, together, comprise 50 percent or more of the floorspace, but whose largest single activity is agricultural, industrial/ manufacturing, or residential; and all other miscellaneous buildings that do not fit into any other category.
Vacant	Buildings in which more floorspace was vacant than was used for any single commercial activity at the time of interview. Therefore, a vacant building may have some occupied floorspace.

Sources:

Residential 2001 Residential Energy Consumption Survey
 Square footage measurements and comparisons
<http://www.eia.doe.gov/emeu/recs/sqft-measure.html>

Commercial Commercial Buildings Energy Consumption Survey (CBECS),
 Description of CBECS Building Types
<http://www.eia.doe.gov/emeu/cbeecs/pba99/bldgtypes.html>

Embodied Emissions Worksheet

Section I: Buildings

Type (Residential) or Principal Activity (Commercial)	# thousand sq feet/ unit or building	Life span related embodied GHG missions (MTCO2e/ unit)	Life span related embodied GHG missions (MTCO2e/ thousand square feet) - See calculations in table below
Single-Family Home.....	2.53	98	39
Multi-Family Unit in Large Building.....	0.85	33	39
Multi-Family Unit in Small Building.....	1.39	54	39
Mobile Home.....	1.06	41	39
Education.....	25.6	991	39
Food Sales.....	5.6	217	39
Food Service.....	5.6	217	39
Health Care Inpatient.....	241.4	9,346	39
Health Care Outpatient.....	10.4	403	39
Lodging.....	35.8	1,386	39
Retail (Other Than Mall).....	9.7	376	39
Office.....	14.8	573	39
Public Assembly.....	14.2	550	39
Public Order and Safety.....	15.5	600	39
Religious Worship.....	10.1	391	39
Service.....	6.5	252	39
Warehouse and Storage.....	16.9	654	39
Other.....	21.9	848	39
Vacant.....	14.1	546	39

Section II: Pavement.....

All Types of Pavement.....				50
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	Columns and Beams	Intermediate Floors	Exterior Walls	Windows	Interior Walls	Roofs	Total Embodied Emissions (MTCO2e)	Total Embodied Emissions (MTCO2e/ thousand sq feet)
Average GWP (lbs CO2e/sq ft): Vancouver, Low Rise Building	5.3	7.8	19.1	51.2	5.7	21.3		
Average Materials in a 2,272-square foot single family home	0.0	2269.0	3206.0	285.0	6050.0	3103.0		
MTCO2e	0.0	8.0	27.8	6.6	15.6	30.0	88.0	38.7

Sources

All data in black text King County, DNRP. Contact: Matt Kuharic, matt.kuharic@kingcounty.gov

Residential floorspace per unit 2001 Residential Energy Consumption Survey (National Average, 2001)
Square footage measurements and comparisons
<http://www.eia.doe.gov/emeu/recs/sqft-measure.html>

Floorspace per building EIA, 2003 Commercial Buildings Energy Consumption Survey (National Average, 2003)
Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels for Non-Mall Buildings, 2003
http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/2003set9/2003excel/c3.xls

Average GWP (lbs CO2e/sq ft): Vancouver, Low Rise Building
Athena EcoCalculator
Athena Assembly Evaluation Tool v2.3- Vancouver Low Rise Building
Assembly Average GWP (kg) per square meter
<http://www.athenasmi.ca/tools/ecocalculator/index.html>
Lbs per kg 2.20
Square feet per square meter 10.76

Average Materials in a 2,272-square foot single family home
Buildings Energy Data Book: 7.3 Typical/Average Household
Materials Used in the Construction of a 2,272-Square-Foot Single-Family Home, 2000
http://buildingsdatabook.eren.doe.gov/?id=view_book_table&TableID=2036&t=xls
See also: NAHB, 2004 Housing Facts, Figures and Trends, Feb. 2004, p. 7.

Average window size Energy Information Administration/Housing Characteristics 1993
Appendix B, Quality of the Data. Pg. 5.
<ftp://ftp.eia.doe.gov/pub/consumption/residential/rx93hcf.pdf>

Embodied GHG Emissions.....Worksheet Background Information

Buildings

Embodied GHG emissions are emissions that are created through the extraction, processing, transportation, construction and disposal of building materials as well as emissions created through landscape disturbance (by both soil disturbance and changes in above ground biomass).

Estimating embodied GHG emissions is new field of analysis; the estimates are rapidly improving and becoming more inclusive of all elements of construction and development.

The estimate included in this worksheet is calculated using average values for the main construction materials that are used to create a typical family home. In 2004, the National Association of Home Builders calculated the average materials that are used in a typical 2,272 square foot single-family household. The quantity of materials used is then multiplied by the average GHG emissions associated with the life-cycle GHG emissions for each material.

This estimate is a rough and conservative estimate; the actual embodied emissions for a project are likely to be higher. For example, at this stage, due to a lack of comprehensive data, the estimate does not include important factors such as landscape disturbance or the emissions associated with the interior components of a building (such as furniture).

King County realizes that the calculations for embodied emissions in this worksheet are rough. For example, the emissions associated with building 1,000 square feet of a residential building will not be the same as 1,000 square feet of a commercial building. However, discussions with the construction community indicate that while there are significant differences between the different types of structures, this method of estimation is reasonable; it will be improved as more data become available.

Additionally, if more specific information about the project is known, King County recommends two online embodied emissions calculators that can be used to obtain a more tailored estimate for embodied emissions: www.buildcarbonneutral.org and www.athenasmi.ca/tools/ecoCalculator/.

Pavement

Four recent life cycle assessments of the environmental impacts of roads form the basis for the per unit embodied emissions of pavement. Each study is constructed in slightly different ways; however, the aggregate results of the reports represent a reasonable estimate of the GHG emissions that are created from the manufacture of paving materials, construction related emissions, and maintenance of the pavement over its expected life cycle. For specifics, see the worksheet.

Special Section: Estimating the Embodied Emissions for Pavement

Four recent life cycle assessments of the environmental impacts of roads form the basis for the per unit embodied emissions of pavement. Each study is constructed in slightly different ways; however, the aggregate results of the reports represent a reasonable estimate of the GHG emissions that are created from the manufacture of paving materials, construction related emissions, and maintenance of the pavement over its expected life cycle.

The results of the studies are presented in different units and measures; considerable effort was undertaken to be able to compare the results of the studies in a reasonable way. For more details about the below methodology, contact matt.kuharic@kingcounty.gov.

The four studies, Meil (2001), Park (2003), Stripple (2001) and Treolar (2001) produced total GHG emissions of 4-34 MTCO₂e per thousand square feet of finished paving (for similar asphalt and concrete based pavements). This estimate does not including downstream maintenance and repair of the highway. The average (for all concrete and asphalt pavements in the studies, assuming each study gets one data point) is ~17 MTCO₂e/thousand square feet.

Three of the studies attempted to thoroughly account for the emissions associated with long term maintenance (40 years) of the roads. Stripple (2001), Park et al. (2003) and Treolar (2001) report 17, 81, and 68 MTCO₂e/thousand square feet, respectively, after accounting for maintenance of the roads.

Based on the above discussion, King County makes the conservative estimate that 50 MTCO₂e/thousand square feet of pavement (over the development's life cycle) will be used as the embodied emission factor for pavement until better estimates can be obtained. This is roughly equivalent to 3,500 MTCO₂e per lane mile of road (assuming the lane is 13 feet wide).

It is important to note that these studies estimate the embodied emissions for roads. Paving that does not need to stand up to the rigors of heavy use (such as parking lots or driveways) would likely use less materials and hence have lower embodied emissions.

Sources:

Meil, J. A Life Cycle Perspective on Concrete and Asphalt Roadways: Embodied Primary Energy and Global Warming Potential. 2006. Available: [http://www.cement.ca/cement.nsf/eee9ec7bbd630126852566c40052107b/6ec79dc8ae03a782852572b90061b914/\\$FILE/ATTK0WE3/athena%20report%20Feb.%202%202007.pdf](http://www.cement.ca/cement.nsf/eee9ec7bbd630126852566c40052107b/6ec79dc8ae03a782852572b90061b914/$FILE/ATTK0WE3/athena%20report%20Feb.%202%202007.pdf)

Park, K, Hwang, Y., Seo, S., M.ASCE, and Seo, H., "Quantitative Assessment of Environmental Impacts on Life Cycle of Highways," Journal of Construction Engineering and Management , Vol 129, January/February 2003, pp 25-31, (DOI: 10.1061/(ASCE)0733-9364(2003)129:1(25)).

Stripple, H. Life Cycle Assessment of Road. A Pilot Study for Inventory Analysis. Second Revised Edition. IVL Swedish Environmental Research Institute Ltd. 2001. Available: <http://www.ivl.se/rapporter/pdf/B1210E.pdf>

Treolar, G., Love, P.E.D., and Crawford, R.H. Hybrid Life-Cycle Inventory for Road Construction and Use. Journal of Construction Engineering and Management. P. 43-49. January/February 2004.

Energy Emissions Worksheet

Type (Residential) or Principal Activity (Commercial)	Energy consumption per building per year (million Btu)	Carbon Coefficient for Buildings	MTCO2e per building per year	Floorspace per Building (thousand square feet)	MTCE per thousand square feet per year	MTCO2e per thousand square feet per year	Average Building Life Span	Lifespan Energy Related MTCO2e emissions per unit	Lifespan Energy Related MTCO2e emissions per thousand square feet
Single-Family Home.....	107.3	0.108	11.61	2.53	4.6	16.8	57.9	672	266
Multi-Family Unit in Large Building	41.0	0.108	4.44	0.85	5.2	19.2	80.5	357	422
Multi-Family Unit in Small Building	78.1	0.108	8.45	1.39	6.1	22.2	80.5	681	489
Mobile Home.....	75.9	0.108	8.21	1.06	7.7	28.4	57.9	475	448
Education	2,125.0	0.124	264.2	25.6	10.3	37.8	62.5	16,526	646
Food Sales	1,110.0	0.124	138.0	5.6	24.6	90.4	62.5	8,632	1,541
Food Service	1,436.0	0.124	178.5	5.6	31.9	116.9	62.5	11,168	1,994
Health Care Inpatient	60,152.0	0.124	7,479.1	241.4	31.0	113.6	62.5	467,794	1,938
Health Care Outpatient	985.0	0.124	122.5	10.4	11.8	43.2	62.5	7,660	737
Lodging	3,578.0	0.124	444.9	35.8	12.4	45.6	62.5	27,826	777
Retail (Other Than Mall).....	720.0	0.124	89.5	9.7	9.2	33.8	62.5	5,599	577
Office	1,376.0	0.124	171.1	14.8	11.6	42.4	62.5	10,701	723
Public Assembly	1,338.0	0.124	166.4	14.2	11.7	43.0	62.5	10,405	733
Public Order and Safety	1,791.0	0.124	222.7	15.5	14.4	52.7	62.5	13,928	899
Religious Worship	440.0	0.124	54.7	10.1	5.4	19.9	62.5	3,422	339
Service	501.0	0.124	62.3	6.5	9.6	35.1	62.5	3,896	599
Warehouse and Storage	764.0	0.124	95.0	16.9	5.6	20.6	62.5	5,942	352
Other	3,600.0	0.124	447.6	21.9	20.4	74.9	62.5	27,997	1,278
Vacant	294.0	0.124	36.6	14.1	2.6	9.5	62.5	2,286	162

Sources

All data in black text

King County, DNRP. Contact: Matt Kuharic, matt.kuharic@kingcounty.gov

Energy consumption for residential buildings

2007 Buildings Energy Data Book: 6.1 Quad Definitions and Comparisons (National Average, 2001)
 Table 6.1.4: Average Annual Carbon Dioxide Emissions for Various Functions
<http://buildingsdatabook.eren.doe.gov/>
 Data also at: http://www.eia.doe.gov/emeu/recs/recs2001_ce/ce1-4c_housingunits2001.html

Energy consumption for commercial buildings and Floorspace per building

EIA, 2003 Commercial Buildings Energy Consumption Survey (National Average, 2003)
 Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels for Non-Mall Buildings, 2003
http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/2003set9/2003excel/c3.xls

Note: Data in plum color is found in both of the above sources (buildings energy data book and commercial buildings energy consumption survey).

Carbon Coefficient for Buildings

Buildings Energy Data Book (National average, 2005)
 Table 3.1.7. 2005 Carbon Dioxide Emission Coefficients for Buildings (MMTCE per Quadrillion Btu)
http://buildingsdatabook.eere.energy.gov/?id=view_book_table&TableID=2057
 Note: Carbon coefficient in the Energy Data book is in MTCE per Quadrillion Btu.

To convert to MTCO2e per million Btu, this factor was divided by 1000 and multiplied by 44/12.

Residential floorspace per unit

2001 Residential Energy Consumption Survey (National Average, 2001)
 Square footage measurements and comparisons
<http://www.eia.doe.gov/emeu/recs/sqft-measure.html>

average life span of buildings,
estimated by replacement time method

	Single Family Homes	Multi-Family Units in Large and Small Buildings	All Residential Buildings
New Housing Construction, 2001	1,273,000	329,000	1,602,000
Existing Housing Stock, 2001	73,700,000	26,500,000	100,200,000
Replacement time:	57.9	80.5	62.5

(national average, 2001)

Note: Single family homes calculation is used for mobile homes as a best estimate life span.
 Note: At this time, KC staff could find no reliable data for the average life span of commercial buildings.
 Therefore, the average life span of residential buildings is being used until a better approximation can be ascertained.

Sources:

New Housing Construction,

2001 Quarterly Starts and Completions by Purpose and Design - US and Regions (Excel)
http://www.census.gov/const/quarterly_starts_completions_cust.xls
 See also: <http://www.census.gov/const/www/newresconstindex.html>

Existing Housing Stock,

2001 Residential Energy Consumption Survey (RECS) 2001
 Tables HC1:Housing Unit Characteristics, Million U.S. Households 2001
 Table HC1-4a. Housing Unit Characteristics by Type of Housing Unit, Million U.S. Households, 2001
 Million U.S. Households, 2001
http://www.eia.doe.gov/emeu/recs/recs2001/hc_pdf/housunits/hc1-4a_housingunits2001.pdf

Transportation Emissions Worksheet

Type (Residential) or Principal Activity (Commercial)	# people/ unit or building	# thousand sq feet/ unit or building	# people or employees/ thousand square feet	vehicle related GHG emissions (metric tonnes CO2e per person per year)	MTCO2e/ year/ unit	MTCO2e/ thousand square feet	Average Building Life Span	Life span transportation related GHG emissions (MTCO2e/ per unit)	Life span transportation related GHG emissions (MTCO2e/ thousand sq feet)
Single-Family Home.....	2.8	2.53	1.1	4.9	13.7	5.4	57.9	792	313
Multi-Family Unit in Large Building	1.9	0.85	2.3	4.9	9.5	11.2	80.5	766	904
Multi-Family Unit in Small Building	1.9	1.39	1.4	4.9	9.5	6.8	80.5	766	550
Mobile Home.....	2.5	1.06	2.3	4.9	12.2	11.5	57.9	709	668
Education	30.0	25.6	1.2	4.9	147.8	5.8	62.5	9247	361
Food Sales	5.1	5.6	0.9	4.9	25.2	4.5	62.5	1579	282
Food Service	10.2	5.6	1.8	4.9	50.2	9.0	62.5	3141	561
Health Care Inpatient	455.5	241.4	1.9	4.9	2246.4	9.3	62.5	140506	582
Health Care Outpatient	19.3	10.4	1.9	4.9	95.0	9.1	62.5	5941	571
Lodging	13.6	35.8	0.4	4.9	67.1	1.9	62.5	4194	117
Retail (Other Than Mall).....	7.8	9.7	0.8	4.9	38.3	3.9	62.5	2394	247
Office	28.2	14.8	1.9	4.9	139.0	9.4	62.5	8696	588
Public Assembly	6.9	14.2	0.5	4.9	34.2	2.4	62.5	2137	150
Public Order and Safety	18.8	15.5	1.2	4.9	92.7	6.0	62.5	5796	374
Religious Worship	4.2	10.1	0.4	4.9	20.8	2.1	62.5	1298	129
Service	5.6	6.5	0.9	4.9	27.6	4.3	62.5	1729	266
Warehouse and Storage	9.9	16.9	0.6	4.9	49.0	2.9	62.5	3067	181
Other	18.3	21.9	0.8	4.9	90.0	4.1	62.5	5630	257
Vacant	2.1	14.1	0.2	4.9	10.5	0.7	62.5	657	47

Sources

All data in black text

King County, DNRP. Contact: Matt Kuharic, matt.kuharic@kingcounty.gov

people/ unit

Estimating Household Size for Use in Population Estimates (WA state, 2000 average)
 Washington State Office of Financial Management
 Kimpel, T. and Lowe, T. Research Brief No. 47. August 2007
<http://www.ofm.wa.gov/researchbriefs/brief047.pdf>
 Note: This analysis combines Multi Unit Structures in both large and small units into one category; the average is used in this case although there is likely a difference

Residential floorspace per unit

2001 Residential Energy Consumption Survey (National Average, 2001)
 Square footage measurements and comparisons
<http://www.eia.doe.gov/emeu/recs/sqft-measure.html>

employees/thousand square feet

Commercial Buildings Energy Consumption Survey commercial energy uses and costs (National Median, 2003)
 Table B2 Totals and Medians of Floorspace, Number of Workers, and Hours of Operation for Non-Mall Buildings, 2003
http://www.eia.doe.gov/emeu/cbeccs/cbeccs2003/detailed_tables_2003/2003set1/2003excel/b2.xls

Note: Data for # employees/thousand square feet is presented by CBECS as square feet/employee.
 In this analysis employees/thousand square feet is calculated by taking the inverse of the CBECS number and multiplying by 1000.

vehicle related GHG emissions

Estimate calculated as follows (Washington state, 2006)_

56,531,930,000 2006 Annual WA State Vehicle Miles Traveled
Data was daily VMT. Annual VMT was 365*daily VMT.
<http://www.wsdot.wa.gov/mapsdata/tdo/annualmileage.htm>

6,395,798 2006 WA state population
<http://quickfacts.census.gov/qfd/states/53000.html>

8839 vehicle miles per person per year

0.0506 gallon gasoline/mile

This is the weighted national average fuel efficiency for all cars and 2 axle, 4 wheel light trucks in 2005. This includes pickup trucks, vans and SUVs. The 0.051 gallons/mile used here is the inverse of the more commonly known term "miles/per gallon" (which is 19.75 for these cars and light trucks).
Transportation Energy Data Book. 26th Edition. 2006. Chapter 4: Light Vehicles and Characteristics. Calculations based on weighted average MPG efficiency of cars and light trucks.

http://cta.ornl.gov/data/tedb26/Edition26_Chapter04.pdf

Note: This report states that in 2005, 92.3% of all highway VMT were driven by the above described vehicles.

http://cta.ornl.gov/data/tedb26/Spreadsheets/Table3_04.xls

24.3 lbs CO2e/gallon gasoline

The CO2 emissions estimates for gasoline and diesel include the extraction, transport, and refinement of petroleum as well as their combustion.

Life-Cycle CO2 Emissions for Various New Vehicles. RENew Northfield.

Available: <http://renewnorthfield.org/wpcontent/uploads/2006/04/CO2%20emissions.pdf>

Note: This is a conservative estimate of emissions by fuel consumption because diesel fuel, with a emissions factor of 26.55 lbs CO2e/gallon was not estimated.

2205

4.93 lbs/metric tonne

vehicle related GHG emissions (metric tonnes CO2e per person per year)

average life span of buildings, estimated by replacement time method

See Energy Emissions Worksheet for Calculations

Commercial floorspace per unit

EIA, 2003 Commercial Buildings Energy Consumption Survey (National Average, 2003)

Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels for Non-Mall Buildings, 2003

http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/2003set9/2003excel/c3.xls

APPENDIX C

HISTORIC RESOURCES REPORT

West Etruria Street Duplexes

Historic and Cultural Resources Report
508/510, 520/522, 528/530, & 607/609 W Etruria Street, Seattle, WA
December 2008

Prepared by:

The Johnson Partnership
1212 NE 65th Street
Seattle, WA 98115-6724
206-523-1618, www.tjp.us



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Four Etruria Duplexes Historic and Cultural Resources Report

DECEMBER 2008

1. INTRODUCTION

This historic and cultural resources report provides information regarding the architectural design and historical significance of four duplexes located at 508/510, 520/522, 528/530, and 607/609 W Etruria Street, Seattle, WA. The buildings are located in the Irondale Replat of Queen Anne Hill in Seattle, Washington. The Johnson Partnership prepared this report at the request of Terry McCann, Blumen Consulting Group.

1.1 Background

The City of Seattle's Department of Planning and Development (DPD), through a 1995 agreement with the Department of Neighborhoods, requires a review of "potentially eligible landmarks" for commercial projects over 4,000 square feet in area. As any proposed demolition of the subject buildings described within this report will require a permit from DPD, Seattle Pacific University (SPU) is providing the following report to the staff of the Seattle Landmarks Preservation Board (LPB) to resolve the properties' status.

1.2 Methodology

Research and development of this report were completed between October and December 2008 by Steve Sand, AIA, NCARB, under direction of Larry E. Johnson, AIA, principal of The Johnson Partnership, 1212 N.E. 65th Street, Seattle, WA. Research included review of documents from the Washington State Regional Archives. Other research was undertaken at the University of Washington Special Collections Library, the Seattle Public Library, the Museum of History and Industry, and the City of Seattle Archives. The buildings and sites were inspected and photographed to document the existing conditions in October 2008.

2. PROPERTY DATA

Building Names: Four Etruria Duplexes

Address: 508/510, 520/522, 528/530, and 607/609 W Etruria Street

Location: Northern Queen Anne Hill

Assessor's File Numbers: 3371900005

Legal Description: HILLS QUEEN ANNE PARK ADD PCL C SEATTLE BLA#2407087
REC #20041214900005 SD BLA BEING POR BLOCKS 1 THRU 5 SD ADD & VAC RDS
ADJ

Date of Construction:

508/510 W Etruria Street: 1957

520/522 W Etruria Street: 1957

528/530 W Etruria Street: 1957

607/609 W Etruria Street: 1957

Original/Present Use: Residences

Original/Present Owner:

508/510 W Etruria Street: Seattle Pacific University

520/522 W Etruria Street: Seattle Pacific University

528/530 W Etruria Street: Seattle Pacific University

607/609 W Etruria Street: Seattle Pacific University

Original Designer:

508/510 W Etruria Street: W. G. Brust & Associates

520/522 W Etruria Street: W. G. Brust & Associates

528/530 W Etruria Street: W. G. Brust & Associates

607/609 W Etruria Street: W. G. Brust & Associates

Zoning: MIO-65-L-2, MIO-37-L-2, SF 5000

Property Size: 269,636 sq ft

Building Size:

508/510 W Etruria Street: 1,300 sq ft

520/522 W Etruria Street: 1,300 sq ft

528/530 W Etruria Street: 1,300 sq ft

607/609 W Etruria Street: 1,300 sq ft

3. AREA DESCRIPTION

3.1 Location

The subject properties are located on the north slope of Seattle's Queen Anne Hill neighborhood. The four buildings are located south and southeast of Seattle Pacific University's Ashton Hall, on W Etruria Street, between 5th Avenue W and the Ashton Hall Parking Lot. *See Figures 1 & 2.*

3.2 Site

The site slopes approximately 20 feet from the west down to the eastern edge of the site. Deciduous and coniferous trees and bushes dot the property. Off-street, paved parking spaces for two vehicles per address are accessible off W Etruria Street, one covered by a carport and another uncovered. *See Figures 3 - 5.*

3.3 Neighborhood Character

The area surrounding the subject property contains the institutional buildings of Seattle Pacific University and single-family housing. To the north of the site approximately six blocks lies the Lake Washington Ship Canal, connecting Salmon Bay's nautical traffic to Lake Washington and Lake Union. The Mt. Pleasant Cemetery is south of the property. *See Figures 6-11.*

4. AREA SIGNIFICANCE

4.1 Historic Neighborhood Context

Queen Anne Hill¹ was first settled in the 1860s and 1870s. Queen Anne was incorporated into the City of Seattle in two annexations, one in 1883, and another in 1890. During the 1880s and 1890s, the roads and sidewalks had been graded and planked on the south side of Queen Anne Hill, and residents had access to municipal water and sewer service.² Between 1900 and 1910, the population of Seattle was booming, and recently platted Queen Anne Hill lots sold well; much of the housing stock was built during this period. Although many of the houses on Highland Drive, Comstock Street, and other streets on the southern and southwestern slopes could be classified as mansions, most of the neighborhood's residents were solidly middleclass. About half the residents of Queen Anne Hill owned the houses they lived in by 1920.³

The Queen Anne Avenue counterbalance streetcar route was built in 1905, encouraging higher density development along the route. From the early 1900s to the present, Queen Anne Avenue from Lee Street to McGraw has been the backbone of the business community on Queen Anne Hill, although significant business development occurred eastward along Galer Street as the streetcar system continued along this street before traveling north on Sixth Avenue W. Other lines serving and directing growth on Queen Anne Hill branched off of Mercer and either wrapped around the west side of the hill on Tenth Avenue, or continued to Ballard along Elliott Avenue, then known as Beach Drive. The eastern side of the hill was served by a line running north on Taylor Avenue, turning westward at Boston Street. By 1933 the north side of Queen Anne Hill was reached via streetcar on a line running along Dexter Avenue and Nickerson Street.⁴

Several significant apartment buildings were constructed in the southern and southwestern crest and slope of Queen Anne Hill during the early part of the last century continuing into the 1920s. These apartments include the Chelsea Apartments (1907) and the Del A Mar Apartments, recognized City of Seattle landmarks.

4.1.1 Seattle Pacific University

Seattle Pacific University (SPU) began in 1891 on five acres deeded to the Free Methodist Church as Seattle Seminary, a school to educate and train missionaries. The campus began with Alexander Hall, a four-story masonry building. It has expanded to cover 43 acres in north Queen Anne. The university also has campuses on Blakely Island and Whidbey Island. In 1915 the school's name changed to Seattle Pacific College, to reflect the addition of college level instruction. The college achieved accreditation in 1936, and changed its name to Seattle Pacific University in 1977. Thirty-four elementary-aged students attended the school in 1891; today 55 undergraduate majors, 12 master's degree programs, and three doctoral programs are offered to over 3,800 students.⁵ The community of Queen Anne and the student body and faculty of SPU have continued to interact via commerce and shared public spaces, such as the Queen Anne Bowl. Students also volunteer their

¹ For additional historic neighborhood context of the Queen Anne Hill Neighborhood, see Florence K. Lentz and Mimi Sheridan, "Queen Anne Historic Context Statement," Seattle Department of Neighborhoods, Historic Preservation Program, and the Queen Anne Historical Society, October 2005. Also see: City of Seattle Department of Neighborhoods, Historic Preservation Program, <http://www.cityofseattle.net/neighborhoods/preservation/ContextQueenAnneStatement2005.pdf>, accessed September 12, 2007.

² Larry E. Johnson, "24 West Lee Street, Kleinogel Residence/Offices of Dr. Richard Gordon: Landmark Nomination Report." The Johnson Partnership, May 2005, p. 6.

³ Kay Frances Reinartz, *Queen Anne, Community on the Hill* (Seattle, WA: Queen Anne Historical Society, 1993), p. 82.

⁴ Leslie Blanchard, *The Street Railway Era in Seattle: A Chronicle of Six Decades* (Forty Fort, PA: Harold F. Cox. 1968), p. 63; Map "Puget Sound Traction Light & Power Company, Seattle Division," 1915.

⁵ Seattle Pacific University, <http://www.spu.edu/info/facts>, accessed May 20, 2008.

time in the surrounding neighborhood, organizing sports leagues and performing other philanthropic services.⁶ *See Figures 12-14.*

4.1.2 Lake Washington Ship Canal

Construction of a lock and canal system connecting Lake Washington to Puget Sound via Lake Union began in 1911. The project was realized by the U.S. Army Corps of Engineers and required a cut from Salmon Bay to Lake Union through Fremont, another cut between Lake Union and Lake Washington, and four bascule bridges at Ballard, Fremont, the University District, and Montlake.⁷ The Locks and canal are a National Historic District and provide public gardens and education to the public regarding salmon runs and shipping.

The canal spurred development along both sides of it and increased development along W Nickerson Street and further up the slope of Queen Anne Hill. *See Figures 15-19.*

⁶ Reinartz, *Queen Anne*, p. 136.

⁷ Historylink.org. "Lake Washington Ship Canal," http://www.historylink.org/essays/output.cfm?file_id=1444, accessed May 20, 2008.

5. ARCHITECTURAL DESCRIPTION: 508-609 W ETRURIA STREET

5.1 Building Structure & Exterior Features

508-530

The six units located between 508-530 W Etruria Street are single-story residential buildings composed of painted concrete masonry units, measuring approximately 36 feet east to west by 24 feet north to south. The roofs have an approximately 1.5:12 slope and are supported by glu-lam beams, purlins, and concrete bond beams. An “insulite” roofing system and a three-ply built-up roofing system and gravel shelters the interior and the carport. Stylistically the buildings are a simple interpretation of the ranch style of housing design. The buildings are mirrored about a central firewall.

The south façades face W Etruria Street and contain a pair of sloping sills supporting slider windows, approximately 6 feet wide by 2 feet 8 inches high. Raked eaves are evident under a metal rain gutter. A 12-foot by 18-foot carport has been added to the eastern and western ends of the buildings. A door adjacent to the exterior wall of the residence provides access to a 6-foot by 12-foot storage area beyond each carport.

The eastern and western façades have a single opening: an entrance door to the rear of the midline of the building. A 3-inch, round steel column supports the end of each of the two glu-lam beams exposed in the carport.

The northern façades of the buildings contain an entrance to each duplex unit approximately 4 feet from the midline of the building and a bank of three 4-foot by 4-foot windows above a sill. There are two, 1-1/2 inch steel pipe supports slightly proud of the window planes. A similarly-sized painted pipe guardrail directs foot traffic away from the midline of the building. The overhang of the roof and the exposed eave stops at the residence’s interior limits and steps back to cover the storage area. *See Figures 20–26.*

607/609

The dwellings at 607/609 W Etruria Street are identical to the previously described buildings, except for the window sizes. The 4-foot by 4-foot windows are on the north, or W Etruria Street, façade and the 6’-foot wide by 2-foot 8-inch sliders are located on the southern façade. *See Figures 27–29.*

5.2 Plan & Interior Features

The interiors of these buildings were inaccessible at the time this report was written.

5.3 Documented Building Alterations

The buildings were designed in 1957 and have a building permit number of 459256 on plans in the City of Seattle’s archives. *See Figures 30-33.*

Original plans submitted to the City of Seattle by W. G. Brust & Associates indicate four buildings on the north side of W Etruria Street, and one to the south. However, only the three eastern duplexes currently exist on the north side of the street. 602/604 W Etruria Street was located near the current southern entrance to Ashton Hall. 479027, presumably a permit number, is handwritten on a drawing by Durham, Anderson & Freed, Architects. This May 1959 drawing indicates that a duplex of similar size and shape was relocated to 3218/3220 5th Avenue W. The area of the relocation was south of Moyer Hall, in the Dravus parking lot. No evidence of this relocated building exists at the site. Washington State Regional Archives show a duplex at 602/604 W Etruria Street as having been torn down in October 1965.

5.4 Historic Architectural Context

Modern: Ranch

The ranch style was originally created in response to the growing use of automobiles as a means of personal transport. The removal of the reliance on streetcars allowed development of less dense neighborhoods further from the city core. The larger lot size encouraged maximizing the street façade widths, which was accomplished by limiting the style to a single above-grade level and incorporating the garage at the side of the residence. Influences from early Spanish Colonials, Prairie Style homes, and Craftsman homes are seen in the lower roof slopes and generous eaves. Roof styles are usually hipped but also include cross-gabled and side-gabled examples. Modest embellishment sometimes includes iron or wood porch columns, and decorative shutters. Picture window ribbons are a common occurrence in living areas as well as sheltered outdoor living areas at the rear of the building.

5.5 Building Owner

The original and current owner of the subject properties is Seattle Pacific University, Seattle, WA.

5.6 Building Architect

W. G. Brust & Associates are the architects associated with the three buildings on the north side of W Etruria Street. William George Brust was a graduate of the University of Pennsylvania School of Architecture. Brust began his own practice in Seattle in 1927, and completed a number of church designs in the 1930s and 1940s. The Phinney Ridge Lutheran Church (1929), Our Redeemer Lutheran Church (1946-47) and the Hope Lutheran Church (1948) were all completed by his firm. Before beginning his own practice, he worked for E. F. Champney in the 1910s. He was then was in partnership with James Stephen and his son, Frederick Bennett Stephen, another University of Pennsylvania graduate, in the firm of Stephen, Stephen and Brust, between 1920 and 1927. Stephen, Stephen and Brust were particularly well known for their education designs. William George Brust died in Seattle in 1969.^{8,9}

Durham, Anderson & Freed

The architect of 607/609 W Etruria Street was Durham, Anderson & Freed, a firm founded in 1954 by Robert L. Durham, David Anderson, and Aaron Freed.

Robert L. Durham (1912-1998)

Robert L. Durham, the son of an engineer, was born in Seattle in 1912. He was educated at the College of Puget Sound, and graduated *cum laude* from the University of Washington School of Architecture in 1936. Durham was an architectural advocate locally and nationally, holding offices in the Seattle Chapter of the AIA and eventually the National AIA, serving as president in 1967. Durham practiced in Seattle in partnership with Bertram D. Stuart from 1942 to 1951, after which Stuart retired. Paul Hayden Kirk briefly joined the firm in 1943, when the firm became Stuart, Kirk & Durham, for the High Point School, Seattle. Significant works by Durham while working as Stuart and Durham included housing during the Second World War, the Waterfront Fire Station, Seattle (1944), the Smith-Gandy Auto Agency, Seattle (1947), Shorewood Apartments (1949), and the Beverly Rae Apartments, Seattle (1949).¹⁰

Durham then worked as Robert L. Durham & Associates until partnering with Aaron Freed and

⁸ City of Seattle, Department of Neighborhoods, "Historical Sites: Summary for 434 Yale Avenue," <http://web1.seattle.gov/dpd/historicalsites/QueryResult.aspx?ID=1072752715>

⁹ Norman J. Johnston, "Robert L. Durham," in *Shaping Seattle Architecture: A Historical Guide to Architects*, ed. Jeffrey Karl Ochsner (Seattle, WA: University of Washington Press, 1994), p. 339.

¹⁰ BOLA Architecture + Planning. "City of Seattle Landmark Nomination, Southwest Library, Seattle," 2001. n.p.

David Anderson in 1954, becoming Durham, Anderson & Freed, a partnership that lasted until 1980. With Durham as senior partner, the firm designed many regional schools, banks, and churches, as well as preparing a master plan and library for Evergreen State College (1971) and the master plan for the U.S. Naval Base, Bangor, Maine (1978). However, the firm gained recognition through its work on churches, winning national awards for the Fauntleroy Congregational Church, AIA (a City of Seattle Landmark); First Methodist Church of Bellevue, 1964 Church Awards Competition of the National Association of Evangelicals; St. Elizabeth's Episcopal in Burien, and St. James Presbyterian in Bellingham. Additionally, Fire Station No. 5 won an award from the Prestressed Concrete Institute in 1964. Other notable buildings designed by the firm include the AGC Building (1965), the University of Washington Atmospheric Science Building (1970), and the Horizon House Retirement Home (1971).¹¹

In 1975, the firm changed its name to Durham Anderson Freed/HDR to reflect their association with Henningson Durham & Richardson, based in Omaha, Nebraska. When Durham retired in 1980, Durham Anderson Freed's office closed, although HDR continues to maintain a Seattle-based office.¹²

5.7 Other Associated Individuals

The subject buildings were constructed as student rental housing and as such have seen a high rate of rental turnover.

5.8 Significance

The properties are relatively intact vernacular, modern, ranch-style homes. They are not significant representations of an architectural style or associated with a historically significant person, nor are they a significant part of the development of the history of Seattle.

Prepared by:
Steve Sand, AIA, NCARB
The Johnson Partnership
1212 NE 65th Street
Seattle, WA 98115
www.tjp.us

¹¹ Norman J. Johnston, "Robert L. Durham" in *Shaping Seattle Architecture: A Historical Guide to Architecture*, ed. Jeffrey Karl Ochsner (Seattle, WA: University of Washington Press, 1994), p. 343. AIA Seattle, "AIA Seattle Medalist: Robert L. Durham FAIA," http://www.aiaseattle.org/archive_honors_medal85_durham.htm, accessed October 21, 2008, n.p.

¹² BOLA, "Southwest Library," 2001. n.p.

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Architecture*, ed. Jeffrey Karl Oschner (Seattle, WA: University of Washington Press, 1994), p.
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APPENDIX 1

FIGURES

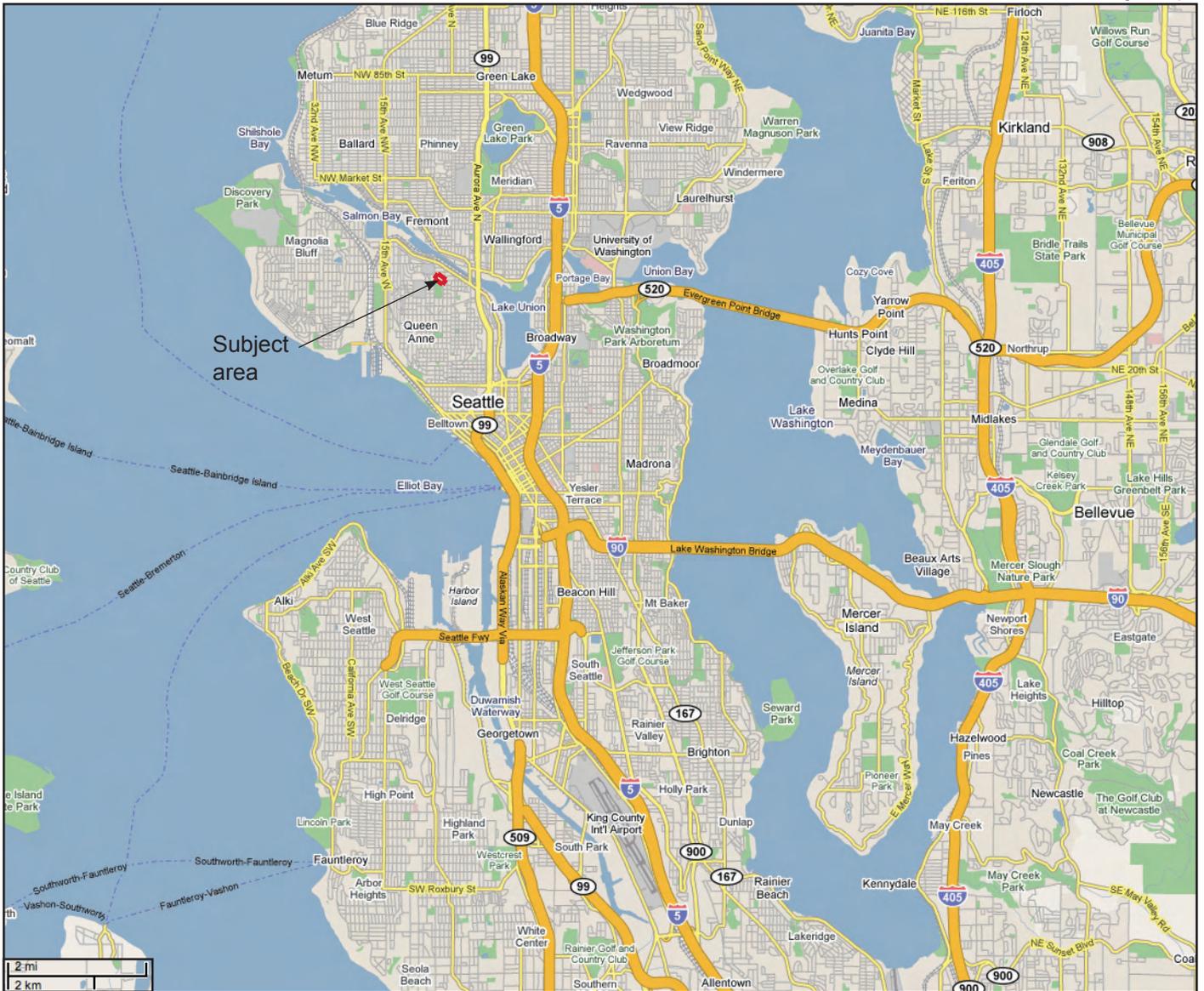


Figure 1 • Location

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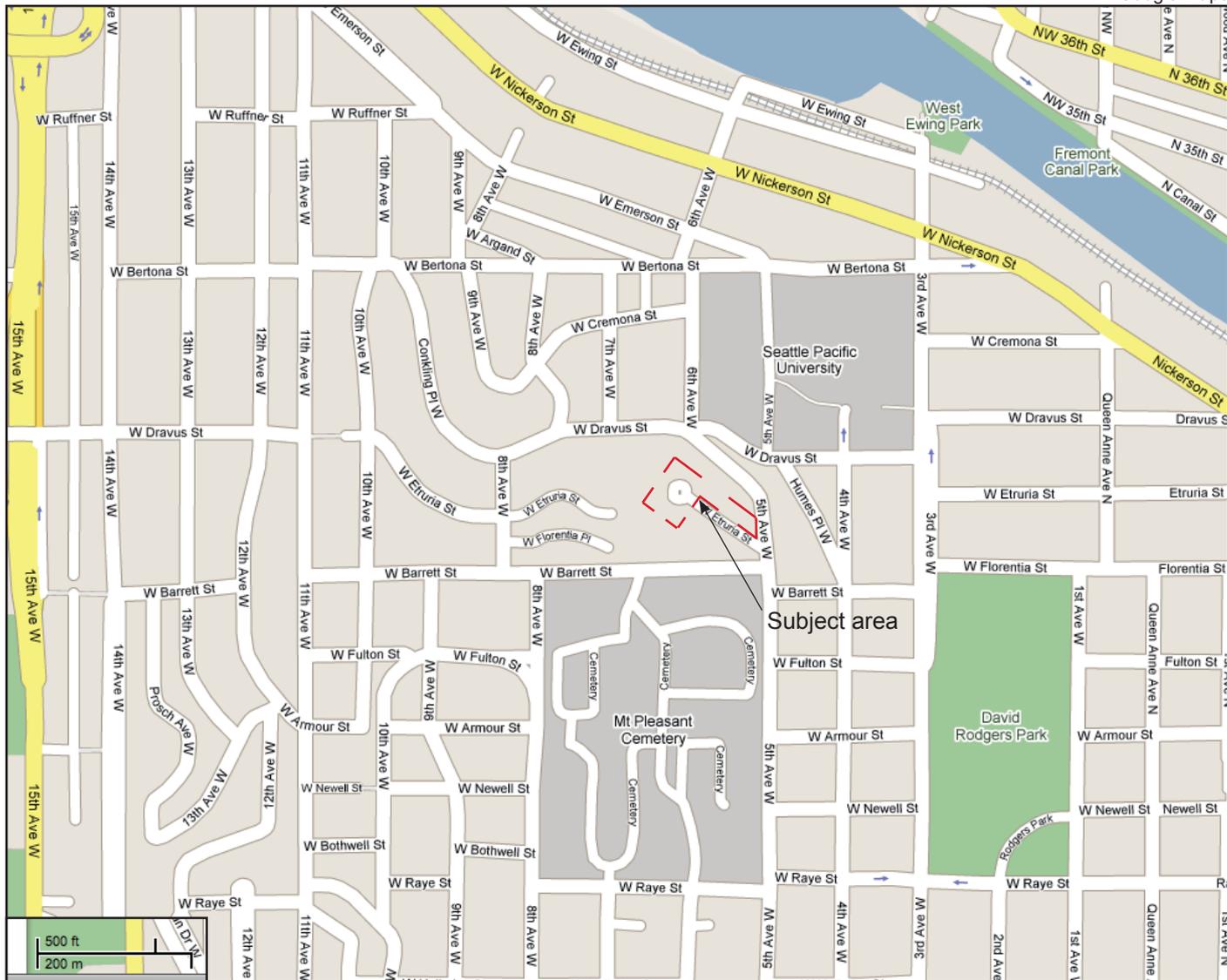


Figure 2 • Neighborhood Location





Figure 3 • Aerial View



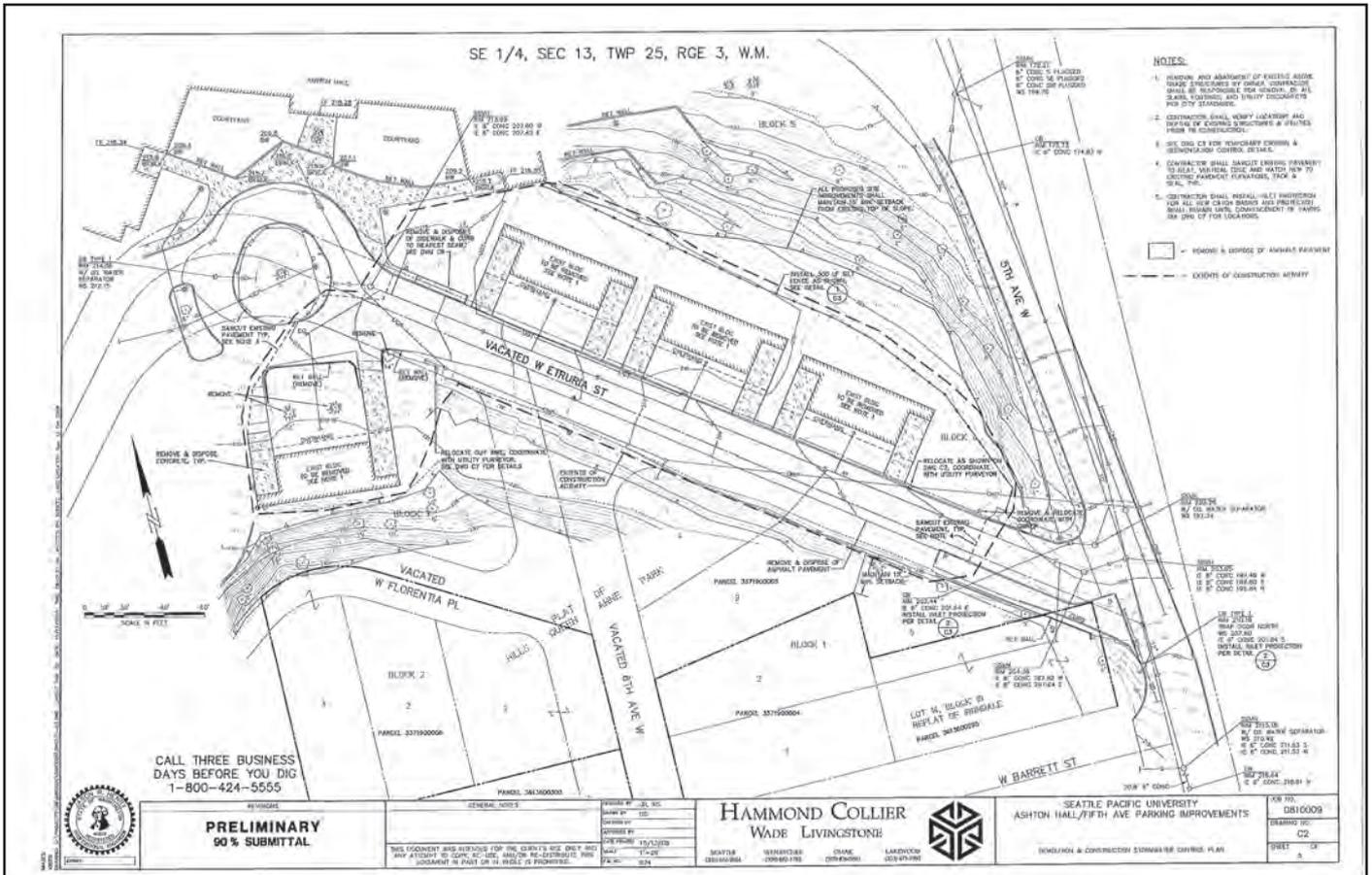


Figure 4 • Site Plan NTS

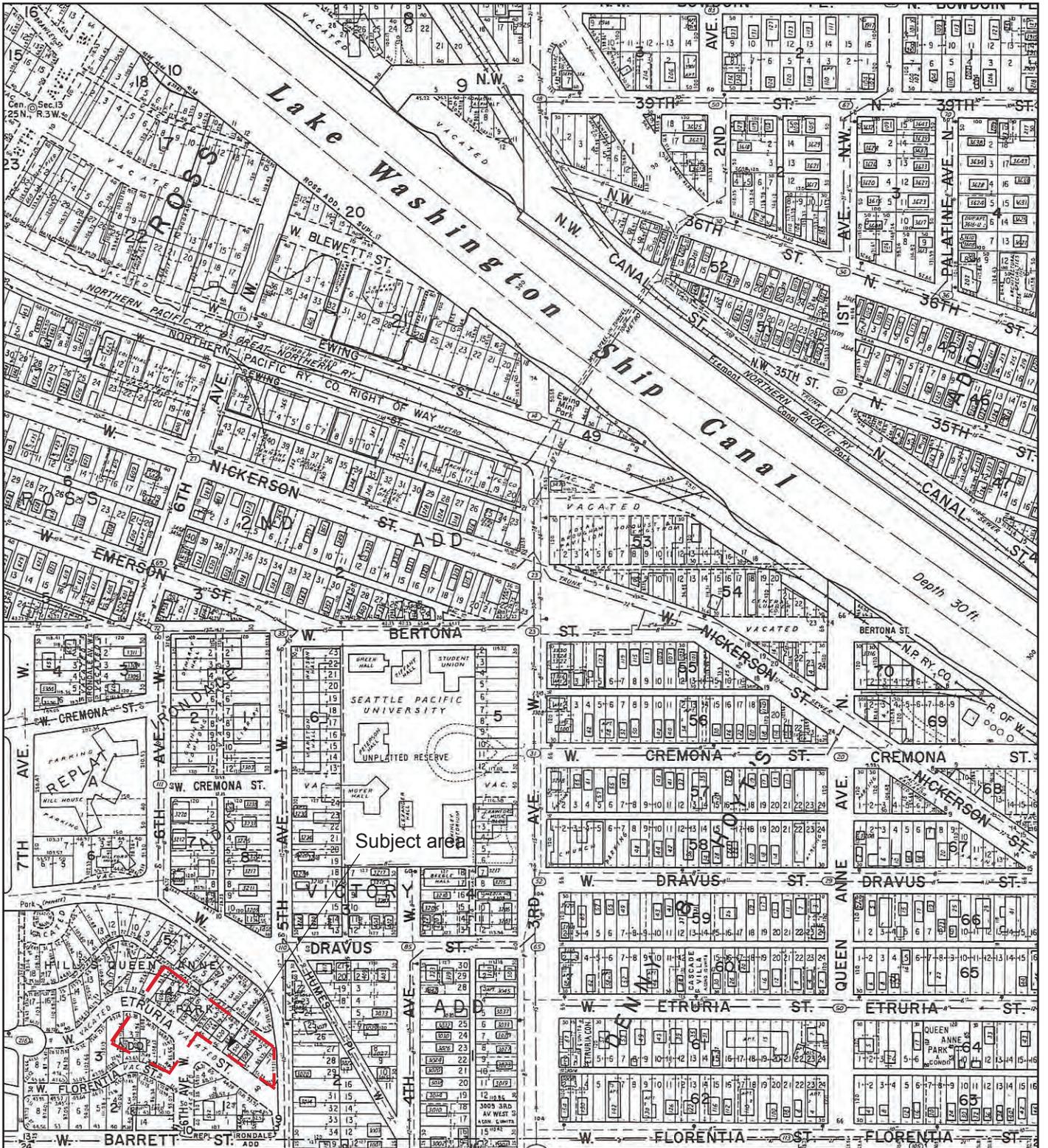


Figure 5 • Area Map

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Figure 6 • View A • Looking north from the corner of 5th Ave W and W Barrett St

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Figure 7 • View B • Looking northwest along W Etruria St from 5th Ave W

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Figure 8 • View C • Looking east from the parking lot at W Etruria St

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Figure 9 • View D • Looking southeast from 5th Ave W, north of subject site

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Figure 10 • View E • Looking west from 5th Ave W, north of subject site

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Figure 11 • View F • Looking south from 5th Ave W, north of subject site



Figure 12 • Seattle Pacific College, Alexander Hall, ca. 1910



Figure 13 • Seattle Seminary, 1914

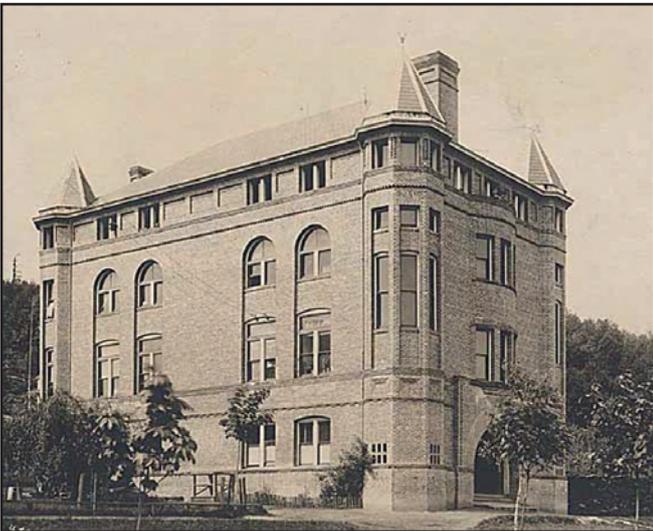


Figure 14 • Seattle Pacific College, Alexander Hall, ca. 1915



Figure 15 • W Nickerson St, November 18, 1920



Figure 16 • W Nickerson St, November 18, 1920



Figure 17 • Slide, W Cremona St between 5th Ave W and 6th Ave W, Jan 3, 1932

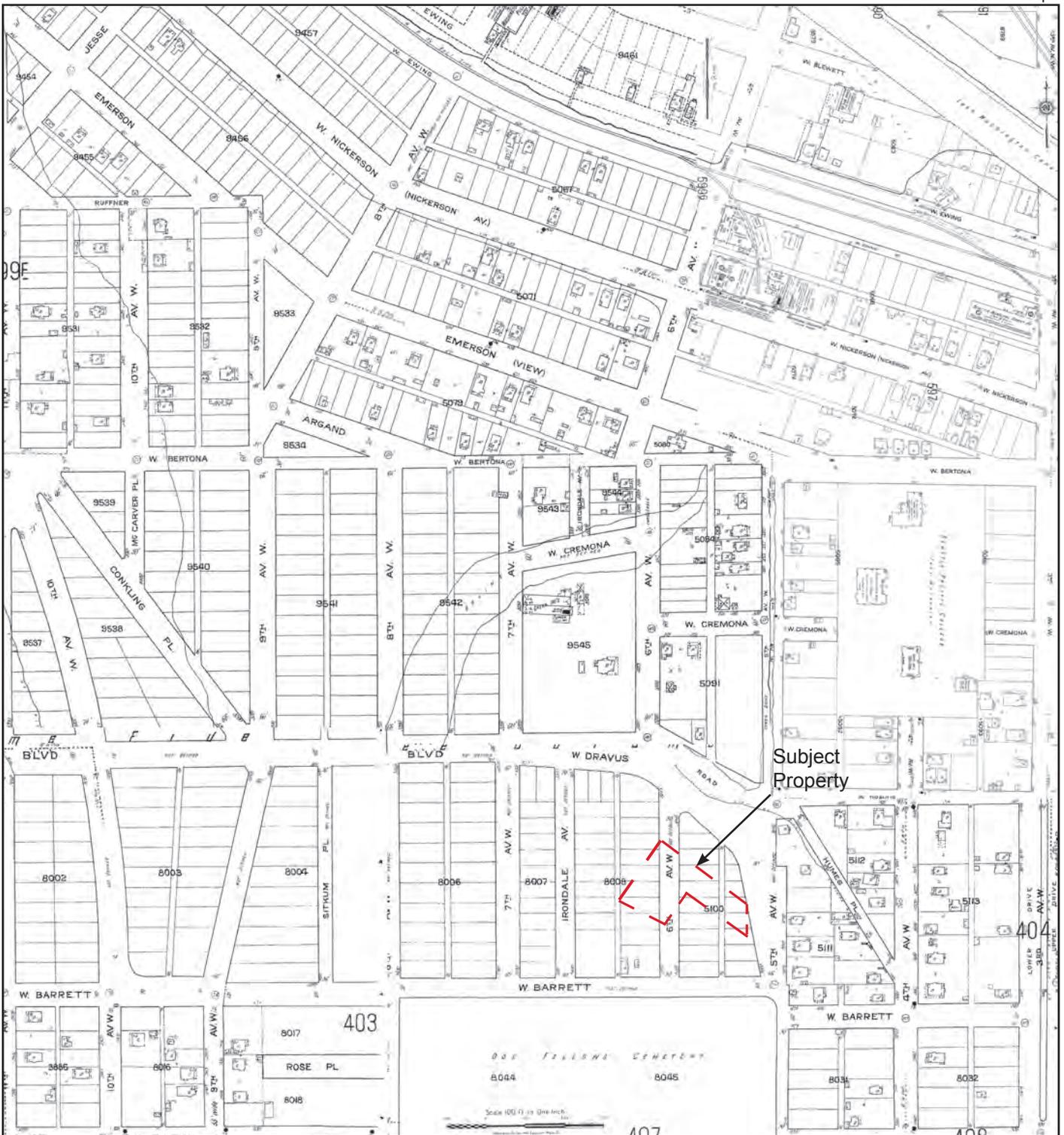
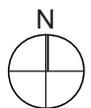


Figure 18 • 1917 Composite Sanborn Ins Map, Vol 4, Sheets 403, 407, and 408; Vol 5, Sheets 597, 598, and 598g



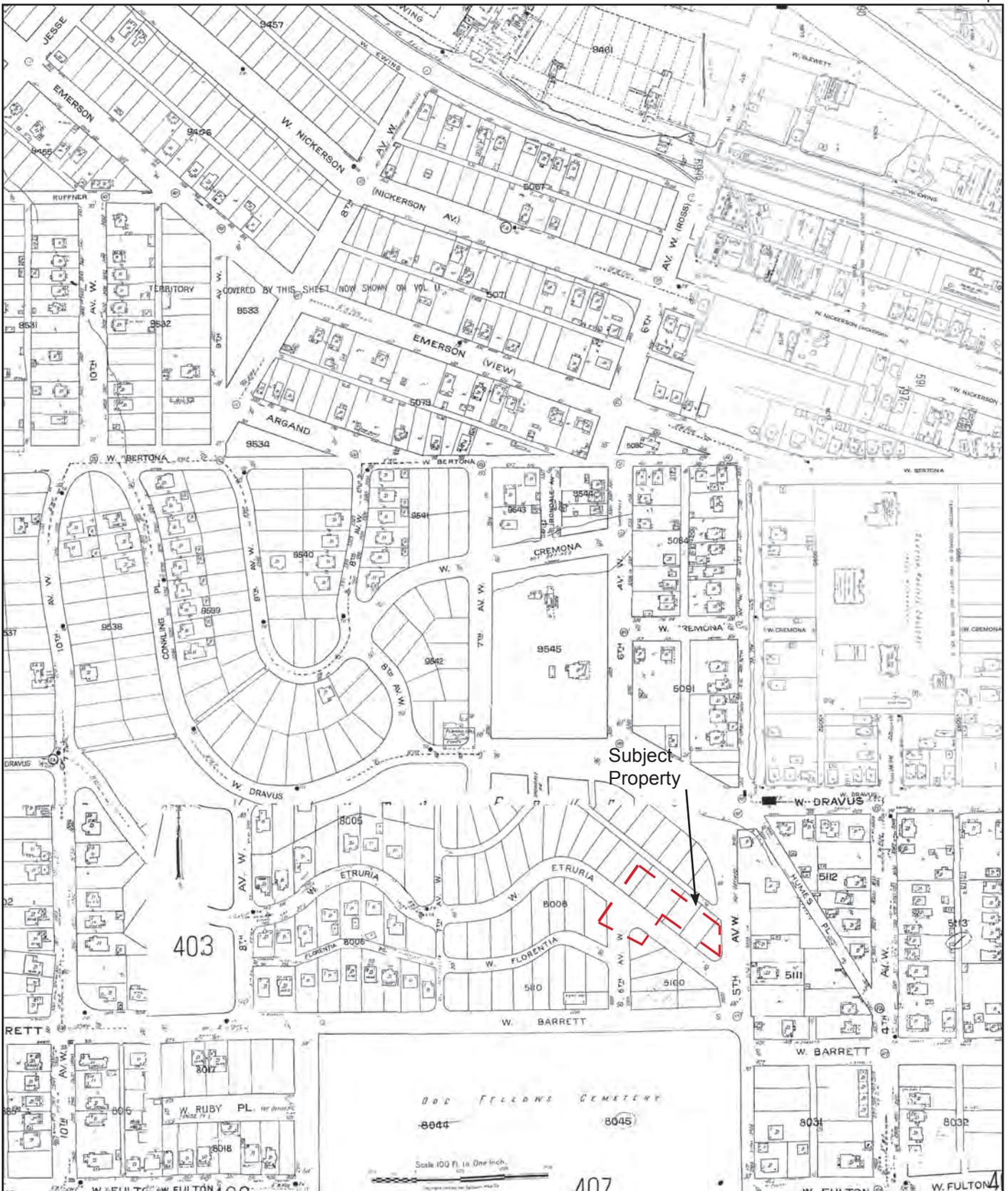
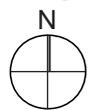


Figure 19 • 1950 Composite Sanborn Ins Map, Vol 4, Sheets 403, 407, and 408; Vol 5, Sheets 597, 598, and 598g



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Figure 20 • 508/510 W Etruria St, south and east façades

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Figure 21 • 508 W Etruria St, south façade

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Figure 22 • 510 and 520 W Etruria St, south and east façades

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Figure 23 • 510 W Etruria St, south façade

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Figure 24 • 520 W Etruria St, partial south and east façades

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Figure 25 • 508 W Etruria St, north and partial east façades

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Figure 26 • 508/510, 520/522, 528/530 north façades

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Figure 27 • 609 W Etruria St, north and west façades

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Figure 28 • 607/609 W Etruria St, north and partial west façades

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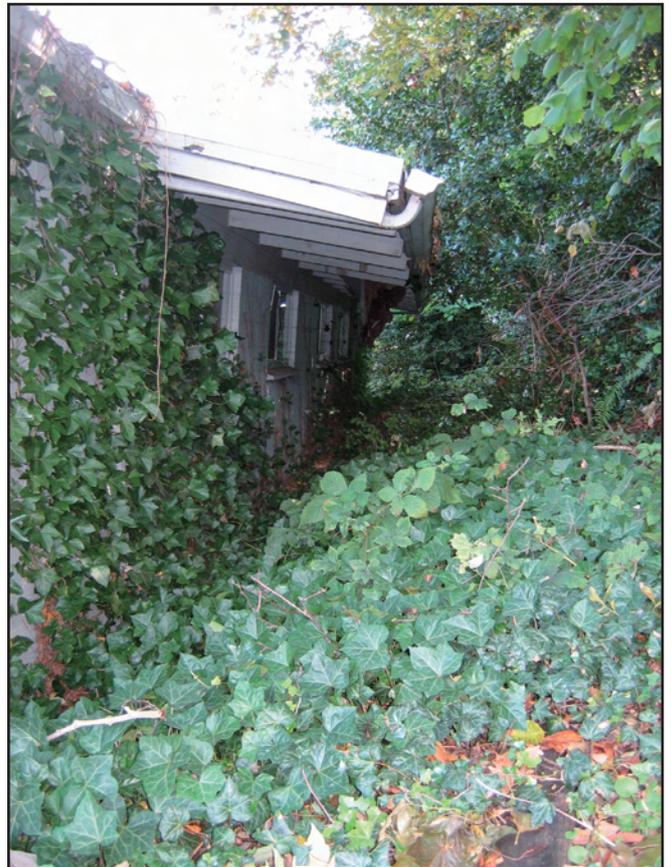


Figure 29 • 607/609 W Etruria St, south façade

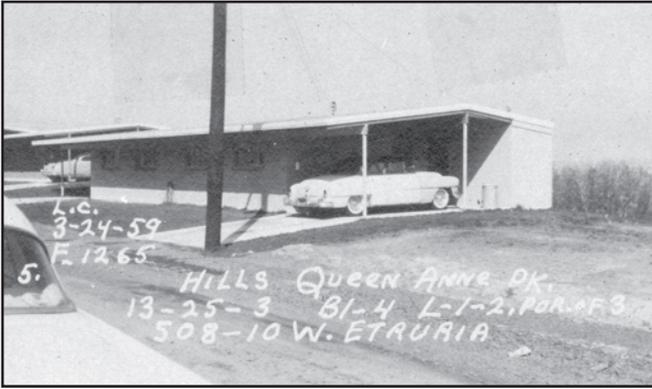


Figure 30 • 508/510 W Etruria St, 1959

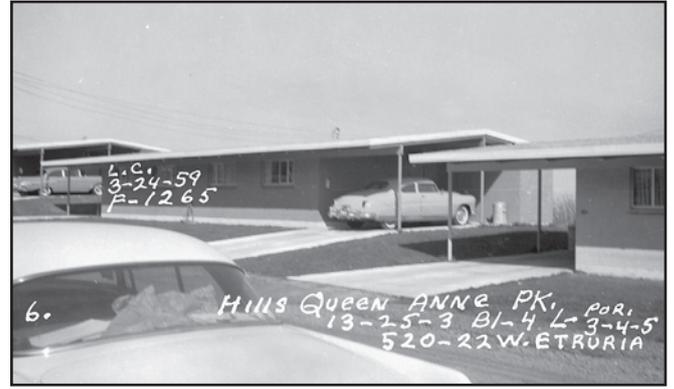


Figure 31 • 520/22 W Etruria St, 1959



Figure 32 • 528/530 W Etruria St, 1959

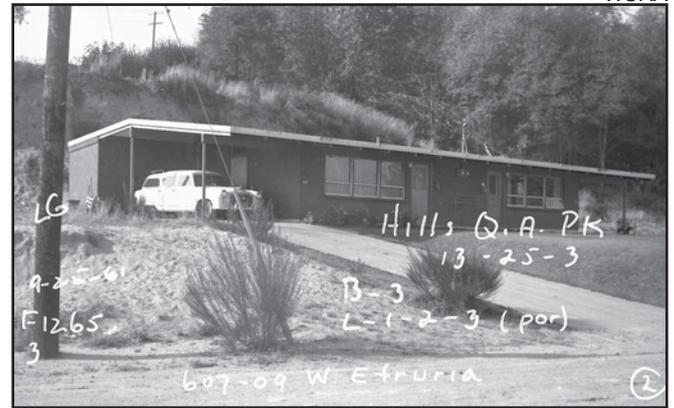


Figure 33 • 607/609 W Etruria St, 1959