The Johnson Partnership

University of Washington

Historic Resources Addendum

Daniel Bagley Hall

Roof Replacement Project

May 15, 2013

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1. INTRODUCTION

This Historic Resources Addendum (HRA) provides information regarding the architectural design and historical significance of Daniel Bagley Hall, located directly west of Frosh Pond and Drumheller Fountain on the Main Seattle Campus of the University of Washington. The Johnson Partnership prepared this report at the request of the University of Washington's Capital Projects Office.

1.1 About Historic Resources Addenda

The University of Washington Master Plan, Seattle Campus was completed in January 2003. This document was intended to guide the development of the campus over the subsequent ten years with the intention of developing the "best means of conserving what is attractive on the campus while providing for development which respects and improves its aesthetic qualities." The Master Plan, as well as previous planning efforts, includes a project review process intended to ensure that the historic context of the campus is retained and enhanced by new development and that the "historic significance, value and association of the campus is preserved for the community, City, State, and Nation." In reviewing actions that may impact historic resources, the University uses a multi-step process involving several review points: the Capital Projects Review Board, the Campus Landscape Advisory Committee, the Architectural Advisor to the University, the University Architectural Commission, and the Board of Regents as the final review step. When applicable, faculty with expertise on University campus history and architecture may be consulted on individual projects.

Historic resources are considered through the University's implementation of the State Environmental Policy Act (SEPA).[1] For any University of Washington project that makes exterior alterations to a building over 50 years old, or is adjacent to a building or a significant campus feature older than 50 years, or an identified significant public space, the University prepares an Historic Resources Addendum (HRA). The HRA is intended to supplement the project review process.

A building's historic significance is usually determined by its eligibility for listing in the National Register of Historic Places. To be eligible for listing in the National Register of Historic Places a site, structure, or building must be older than fifty years. Listed places possess integrity of location, design, setting, materials, workmanship, feeling and association, and:

A. Are associated with events that have made a significant contribution to the broad patterns of our history; or

B. Are associated with the lives of persons significant in our past; or

C. Embody the distinctive characteristics of a type, period, or method of construction or represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or

D. Have yielded, or may be likely to yield, information important in prehistory or history.

The standards and criteria found in National Register of Historic Places Bulletins 15 and 39 are used to evaluate the integrity of a specific site and its associated structures and buildings. Bulletin 15 defines integrity of a property to convey its significance. Integrity is the authenticity of a historic resource's physical identity evidenced by the survival of characteristics existing during the resource's period of significance. Integrity involves several aspects including location, design, setting, material, workmanship, feeling, and association. To retain historic integrity, a property will always possess several, and usually most, of the aspects. Bulletin 39 defines a resource's period of significance as the span of time during which significant events and activities occurred.

In determining whether a building embodies the distinctive characteristics of a type, period, or method of construction or represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction, an examination of a resource's "character-defining features" is used to identify the elements that characterize a building and includes such

[1] The University's SEPA process is set forth in chapter 478-324 WAC.

elements as the building's overall shape, massing, materials, craftsmanship, functional and decorative details, interior proportions, spaces, and attributes, as well as certain aspects relating to its site, landscaping, and overall environment.[2]

1.2 Purpose

This document provides a brief architectural description and a discussion of architectural significance of Bagley Hall. This building may be impacted by the proposed repairs and improvements to the roof systems. The original building is over 50 years in age, and meets the minimum age criteria for listing in the National Register of Historic Places. The University of Washington, recognizing that the building is an historic part of its own campus, has elected to commission this HRA to assure sensitive treatment of this building as necessary repairs and rehabilitation projects are designed and implemented. This report offers recommendation for mitigation or treatment of the subject building related to the proposed roofing system repairs and upgrades.

University of Washington Digital Collection

Bagley Hall exterior, and Drumheller Fountain

1.3 Methodology

Research and development of this report were completed during August 2012 by Howard L. Miller, AIA, NCARB, LEED AP, Associate and Larry E. Johnson, AIA, LEED AP, Principal of The Johnson Partnership, 1212 N.E. 65th Street, Seattle, WA. Research included review of documentation from the University of Washington's Capital Project Office archives including the original construction drawings and site plans. The existing conditions have been documented, researched and analyzed to enable evaluation and mitigation as necessary for the proposed alterations, repairs and upgrades to the roofing systems.

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[2] U.S. Department of the Interior, National Park Service, "Architectural Character, Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character," by Lee E. Nelson, National Register Bulletin, no. 17. 1991, 1998.

2. General Historical Background

2.1 Site Historical Context: University of Washington Campus

In 1860, the Washington Territorial Legislature authorized the establishment of a territorial university, in what was then the small village of Seattle. The university site, a gently sloped ten-acre forested tract donated by Seattle pioneers Arthur and Mary Denny, Charles and Mary Terry, and Edward Lander, overlooked Elliott Bay to the west and the developing village of Seattle to the southeast. The university site was located on what is now called the "University Tract," a section of downtown Seattle between Union and Seneca streets, and between the alley situated between 3rd and 4th avenues and the alley situated between 5th and 6th avenues; as well as the eastern half-block abutting 5th Avenue between Seneca and Spring streets, and also including a mid-block lot abutting 3rd Avenue between Union and University streets. The university's two-story main building, designed by Seattle pioneer John Pike in the Neoclassical style with a central cupola and colonnaded porch, was completed in time for the official opening of the Territorial University of Washington on September 16, 1861, and for the first classes on November 4, 1861.[3]

By the late 1880s, increasing student enrollment and the expansion of the city center around the campus resulted in thoughts to relocate the university. Seattle's population had grown from approximately 250 settlers in 1861 to over 50,000 in 1891. In January 1891, the legislature appointed a committee to select a new university site, and by March, the legislature had chosen a site on Lake Washington's Union Bay, and had authorized the sale of the original campus. The newly appointed University Land and Building Commissioners commissioned local architect William E. Boone to develop a comprehensive plan for a new campus on the 160-acre Interlaken site which was generally limited to what is now the lower campus's medical complex. Boone's plan grouped academic buildings in a semi-circle facing southeast, south of the Seattle, Lake Shore and Eastern Railway tracks running east-west from the northern side of Lake Union and continuing northward along the base of a low bluff. Construction bids, however, exceeded available funds and work was abandoned, as was the sale of the original campus due to unfavorable market conditions.[4]

Edward Meany, valedictorian of the class of 1885, and a newly elected state legislator, convinced the State Legislature in late 1894 to purchase an expanded 580-acre site that included the low bluff overlooking Lake Washington, to authorize $150,000 for construction, and to abolish the Land and Building Commission, placing the future of the university in the hands of a sub-committee of the University Board of Regents. The commission for the first new building, the Administration Building (now Denny Hall) was awarded to local architect Charles Saunders, and the cornerstone was laid on July 4, 1894. The building was sited rather arbitrarily on the upper (northern) part of campus. Stone remaining from the construction of the Administration Building was used to construct the second permanent building on campus, the Observatory, also designed by Saunders and completed in 1895. The first term on the new campus began on September 4, 1895.[5]

Recognizing the need for longer-term planning, the University Board of Regents sought to develop a campus plan to guide the location of future buildings. Engineering professor A. H. Fuller was enlisted and developed a plan now known as the Oval Plan in 1898. This plan grouped the

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[3] Norman J. Johnston, The Fountain & the Mountain, *The University of Washington Campus, 1895-1995*, (Woodinville, WA: Documentary Book Publishers Corporation1995), pp. 15-17.

[4] Johnston, *The Fountain & the Mountain,* pp. 20-21.

[5] Johnston, *The Fountain & the Mountain,* pp. 18, 20, and 21.

Administration Building and other planned buildings around an oval pathway enclosing a large open space.[6]

In 1903, anticipating further growth, the Regents hired the Olmsted Brothers of Brookline, Massachusetts, to prepare a general campus plan. The firm had just completed a park plan for the City of Seattle. The unrealized 1904 Olmsted plan converted the oval to an arts quadrangle and added a science quadrangle to the south, in the approximate current location of Drumheller Fountain. Further campus planning was delayed when Seattle businessmen asked the Board of Regents for permission to use the lower southern campus area as the grounds for the planned 1909 Alaska-Yukon-Pacific (AYP) Exposition. The regents favored the idea as a means of clearing the timber from that portion of the campus, with the bonus of future educational use of some remaining exhibition buildings. The greatest long-term benefit to the university, however, was the overall site design supplied by John Olmsted, who was hired by the AYP organizers. Portions of the present campus plan descend from the Beaux-Arts "City Beautiful" design for the 1909 fair. When the AYP grounds reverted back to the university after the fair, the central campus axis of Rainier Vista was firmly established.[7]

University of Washington Digital Collection

Bird's-eye view of Rainier Vista and grounds looking towards Mt. Rainier

Following the removal of the fair's temporary buildings, some of the more permanent buildings were repurposed—the Washington State Building (1909, demolished) became the university's library, the Auditorium Building (1906-09, Howard & Galloway, demolished) was renamed Meany Hall, and the Fine Arts Building (1906-09, Howard & Galloway, now Architecture Hall) became the Chemistry Building. Other permanent university buildings would soon be constructed in the central and south quadrants along the organizational system established by Olmsted, reflecting the university's continual evolution from a regional college into a major nationally-recognized academic institution.[8]

The "Revised General Plan of the University of Washington," now commonly known as the Regents' Plan of 1915, prepared by architect Carl F. Gould of the Seattle architecture firm of Bebb & Gould, built upon the organizational framework of Olmsted's AYP plan. It also further developed its symmetry and formality, resulting in a "design framework based upon a hierarchy of axes, spaces, and forms that continue to underlie the planning of the campus today." The Regents' Plan featured a large core plaza where the administrative (Meany Auditorium, demolished) and library facilities

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[6] Johnston, *The Fountain & the Mountain,* pp. 21-22.

[7] Johnston, *The Fountain & the Mountain,* pp. 22 and 27.

[8] Norman J. Johnston, *The Campus Guide, University of Washington* (Princeton, NY: Princeton Architectural Press, 2001), pp. 43, 70, and 71. Johnston, *The Fountain & the Mountain,* pp. 30-32.

(future location of Suzzallo Library) were grouped. From this "hinge" branching off to the northeast was the axis of an upper campus quadrangle where the Liberal Arts programs were to be grouped, and branching off the core to the southeast was the axis established by Rainier Vista, directly in line with Mount Rainier. Here the Science programs were to form another quadrangle with Drumheller Fountain at its center. The Collegiate Gothic style was also suggested by architect Carl Gould, and adopted as part of the plan, as the suitable architectural style for future campus buildings for the core campus area due to its symbolic and visual association with northern European universities.[9]

By the time Gould developed the 1915 campus plan, university enrollment had reached 2,824. The United States would soon enter World War I, temporarily halting further permanent campus development, with many areas of the campus repurposed for military training. Bebb & Gould were called in again after the Armistice to update the plan. The resulting 1920 plan primarily differed in that it reflected the initial realization of the Liberal Arts Quadrangle with the construction of Raitt Hall (1916, Bebb & Gould) and Savery Hall (1917, 1920, Bebb & Gould), as well as the original U-shape of the Associated Students of the University of Washington's new stadium, also designed by the firm, and the siting of additional athletic fields and associated buildings to the north.[10]

The firm revised the plan again between 1934-35 to reflect the construction of recent new buildings on the upper campus, including Miller Hall (1922, Bebb & Gould), the university's new library (1926, Bebb & Gould), renamed Suzzallo Library, Hutchinson Hall (1927, Bebb & Gould), the Henry Art Gallery (1927, Bebb & Gould), Gowen Hall (1932, Abraham H. Albertson). The updated plan also showed the initial development of the Science Quadrangle with the building of Physics Hall (1928, John Graham Sr., now remodeled as Mary Gates Hall), Guggenheim Hall (1929, John Graham Sr.), Johnson Hall (1930; John Graham Sr.), as well as the Anderson Hall (1925, Bebb & Gould) and the Oceanography Building (1932, John Graham, Sr.) on the southern portion of the campus, and Hec Edmundson Pavilion (1928, Bebb & Gould) adjacent and to the north of the new stadium. The plan also recommended some changes, including siting of a health sciences complex south of Northeast Pacific Street, and the location of student housing on the northeastern edge of the campus.[11]

Bebb & Gould and its successor firm, Jones and Bindon, continued to revise the campus plan into the late 1950s as the university evolved. Additional building occurred in the late 1930s, all adhering to the campus plan, including: Smith Hall (1939, Bebb & Gould), which further defined the Liberal Arts Quadrangle; Bagley Hall (1937, Naramore, Granger & Thomas, with Carl Gould) further developing the Science Quadrangle; and the first new dormitory in several years, Hansee Hall (1939, David J. Myers and John Graham).

University of Washington Digital Collection

Bagley Hall ca. 1939

[9] Carl F. Gould, "Revised General Plan, University of Washington," Charles H. Bebb and Carl F. Gould, Architects, 1915, p. 1. Paul Dorpat and Genevieve McCoy, *Building Washington, A History of Washington State* (Seattle, WA: Tartu Publications, 1998), p. 57.

[10] Office of Regional Affairs, "Brief History," pp. 1 and 2. Johnston, *The Campus Guide,* pp. 26-28 and 117-118.

[11] Office of Regional Affairs, "Brief History," pp. 1 and 2. Johnston, *The Campus Guide,* pp. 28-30, 44-46, 49-50, 55-58, 66-67, and 117-118.

As the United States entered World War II in 1940, however, further campus building was suspended.[12]

Following World War II, major changes to the campus resulted from an influx of students attending on the GI Bill, as well as the establishment of the medical school in 1948. Student enrollment swelled from 10,725 in 1937 to 14,737 in 1949, and university's campus plan was again updated in 1948/49, recommending expansion of dormitories on the northeastern ridge, the development of the health science complex replacing a golf course on the southern campus, increasing development around Meany Hall and the Science Quadrangle, acquisition outside of the original campus along Campus Parkway and south toward Portage Bay, and acquisition of additional property east of 15th Avenue NE. The university responded by increasing its capacity with additional building construction. Buildings added during this early Post War period still were designed in the Collegiate Gothic style, consistent with the guidelines established as part of the Regents' Plan of 1915.[13]

University of Washington Campus Engineering-Records

Aerial photograph of Bagley Hall and vicinity, 1951

The University's Board of Regents created the Architectural Commission in 1957 to advise and make recommendations to the board and president on matters concerning the design, function, performance, and environmental integrity of the university's buildings, landscapes, infrastructure, and urban amenities. Shortly after this time Collegiate Gothic ceased to be required as the style for new core campus buildings, and new construction was replaced by various Modern styles of architecture as the preferred style for new campus buildings. The present generation of campus buildings is characterized by a variety of styles, which provide visual interest and a sense of the campus development over time.[14]

As the university continued to expand outside of its original border during the 1960s, campus planning began to take place within the greater context of the surrounding urban neighborhood. Architect Paul Thiry and Walker & McGough prepared off-campus expansion plans for the university in 1962 and 1963, respectively. The university's Campus Planning Office was established in 1969, and continued to update the campus plan throughout the 1970s and 80s. University expansion was inevitable—in the 1960s, student enrollment increased at the rate of approximately

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[12] Office of Regional Affairs, "Brief History," pp. 1 and 2. Johnston, *The Campus Guide*, pp. 15, 29-30, 63-64, and 80-81.

[13] Office of Regional Affairs, "Brief History," pp. 1 and 2. Johnston, *The Campus Guide,* pp. 31-33, 36-38, 46-47, 96-97, 60-61, and 107.

[14] University of Washington, "Architectural Commission," p.1, http://f2.washington.edu/cpo/projects/committees/arch-comm, accessed October 22, 2010. Johnston, *The Campus Guide,* pp. 12-13, 17, 35, 66-67, 81-82, 92, 97-98, and 108-109.

1,000 students per year. By 1970, the university's enrollment neared 30,000, almost doubling in size in the single decade as the Post-World War II baby boomers reached college age.[15]

A major earthquake in 1965 precipitated one of the most significant campus planning projects in the university's history. Meany Auditorium, one of the few remaining AYP buildings on campus, was already in poor condition when a major seismic event irreparably damaged the building. The demolition of Meany not only allowed the realization of a major Central Plaza (1974, Kirk, Wallace McKinley & Associates), as envisioned in the 1915 Regents' Plan, but the construction of additional performance and academic building around the new plaza.[16]

The adoption of the 1971 State Environmental Policy Act (SEPA) increased the responsibility of the university as lead agency to more thoroughly evaluate community impacts related to institutional expansion. By the late 1970s, the need for closer coordination between the City of Seattle and the university to compatibly direct university growth was evident. As a result, the City of Seattle and the university adopted the "Joint Statement of Goals and Policies of the City of Seattle and the University of Washington." This agreement includes specific policies relating to campus size, land use and acquisition, site development and design, transportation, housing, and community interface, as well as establishing a community advisory process. In 1983, another City-University Agreement committed the university to prepare a new comprehensive master plan for future campus development that would be reviewed and approved by the city. The university's "General Physical Development Plan for 1991-2001" established policies and plans for land use, design, open space and landscaping, site development, waterfront development, and transportation goals and management, as well as a ten-year development program.[17]

The current University of Washington "Campus Master Plan" intends to direct future physical development of the Seattle campus, providing a continuity of planned development initiated over century ago. The Seattle City Council approved the Plan in December 2002, and adopted by the Board of Regents in January 2003.[18]

As Washington State's flagship university, the university currently has an enrollment of more than 42,000 students. In addition to the Seattle campus, the university has branch campuses in Tacoma and Bothell, and a professional and continuing education program.

2.2 Site User: University of Washington School of Chemistry

Daniel Bagley Hall, originally known as the Chemistry and Pharmacy Building, was built between 1935 and 1936, directly west of Frosh Pond and Drumheller Fountain, on the vacant site remaining from the demolition of the Alaska-Yukon-Pacific Exposition's (AYPE) Agriculture Building (1909, demolished ca. 1910).

The construction of the Chemistry and Pharmacy Building, built in the midst of the 1930s Depression, was funded by both state and federal grants amounting to $1,250,000. It was the most

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[15] Office of External Affairs, "Campus Master Plan, Appendix C: Campus Planning at the University of Washington," University of Washington, pp. 4-5, http://www.washington.edu/community/cmp_site/cmpfinal/C.pdf, accessed October 25, 2010.

[16] Johnston, *The Campus Guide,* pp. 43 and 47-49.

[17] University of Washington, "Architectural Commission," p. 2.

[18] Office of Regional Affairs, "Overview of Campus Master Plan: What is the Plan?" University of Washington, p. 1, http://www.washington.edu/community/cmp_site/Plan_Background.html, accessed October 25, 2010.

costly campus construction project built up to that time.[19]

The building's program was developed by Warren L. Beuschlein and S.G. Powell, utilizing information obtained in a report prepared by architect Carl F. Gould and H.K. Benson covering the recent inspection of 11 recently constructed laboratories in the United States. The plans and specifications were prepared, and acceptance of the project was completed within the 90 days stipulated under the federal grant.[20]

The building was designed in the Art Deco, or Works Public Administration Moderne style, with an H-shaped plan of three-and one-half floors, with overall dimensions being 260 by 380 feet, with a total enclosed area of approximately 208,000 square feet. The construction was of reinforced concrete with a brick masonry veneer. Interior partitions were constructed of hollow masonry tile, with the laboratory wall surfaces glazed. All laboratories had high ceiling with natural light, with interior spaces allocated for corridors, lecture rooms, and storage. A sub-basement contained extensive mechanical equipment, and the attic above the third floor was a plenum space dedicated for fume ducts, fans, and water distillation equipment.[21]

Two large tile mosaic murals completed in 1936 by Robert B. Inverarity, and funded by the Works Progress Administration (WPA), were mounted on the western wall of the building's entrance lobby. They depicted the contributions of Egyptian alchemy and modern science to chemistry.[22]

The University's Chemistry program, which had previously been housed in the original Bagley Hall, moved to the new building in 1937, which was named Daniel Bagley Hall.

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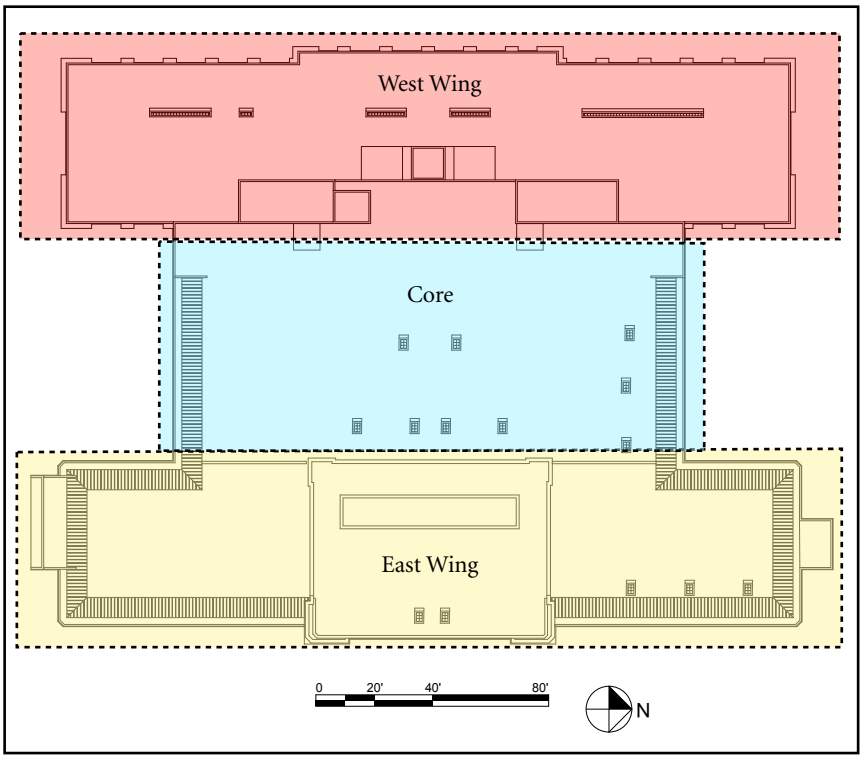
[19] W.L. Beuschlein, "Modern Laboratories: Bagley Hall, University of Washington," *Analytical Chemistry*, Vol. 11, No. 6, June 1939, p. 352.

[20] Beuschlein, p. 352.

[21] Beuschlein, p. 352.

[22] Norman J. Johnston, *The Campus Guide*, University of Washington, p. 64.

3. BUILDING DESCRIPTION



Diagrammatic Plan

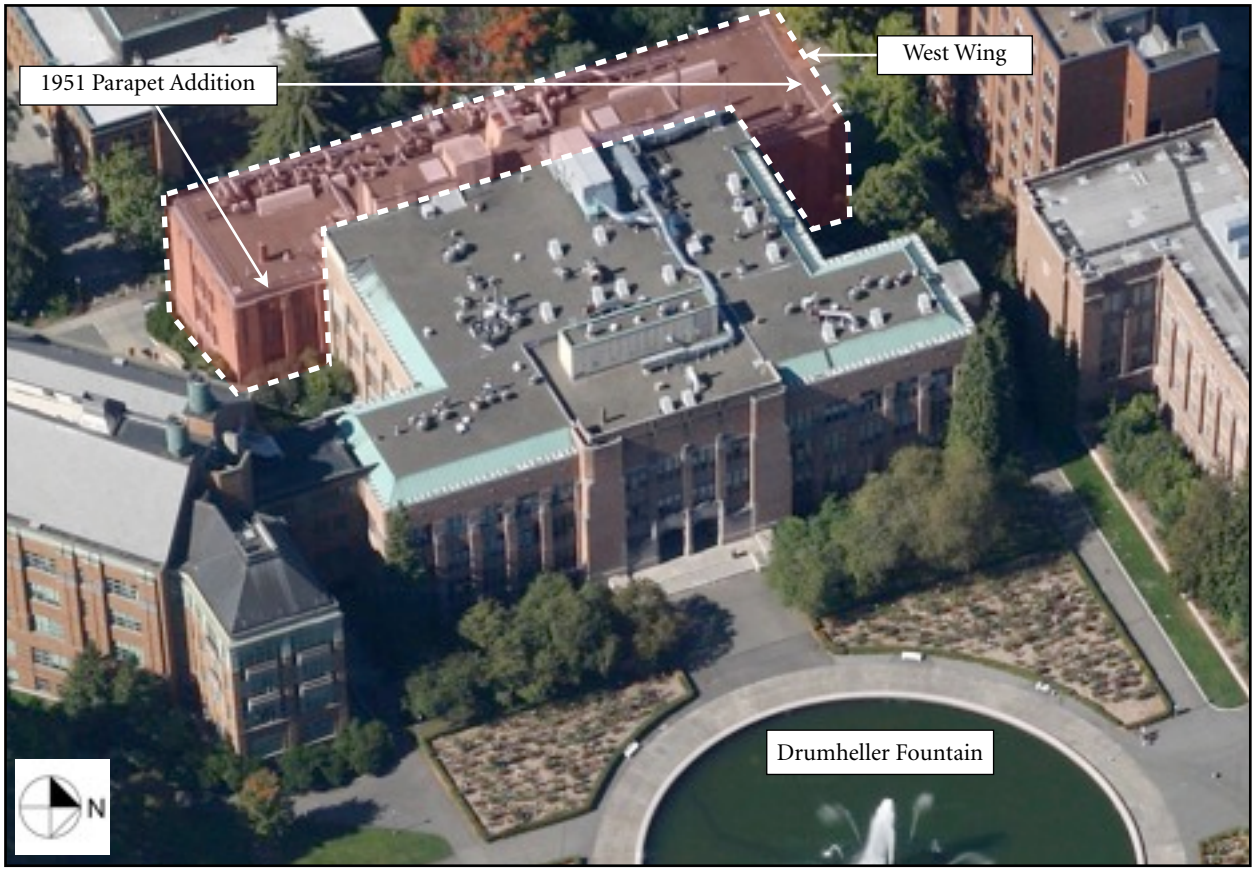
Daniel Bagley Hall is a four-story reinforced concrete and structural steel building with a H-shaped plan. The building site slopes gently down to the southwest. The prominent main entrance facing Rainier Vista is located on eastern wing, with large lecture rooms located in the central core on the main and second floors. The western wing also is four stories, although the lower floor is level with the basement of the eastern wing and core section. The height from grade to the top of the parapet on the eastern main entrance façade is approximately 70 feet. Most of the building's perimeter is devoted to laboratories and offices. The building has a full basement, with a central sub-basement/fan room.

The building has a brick masonry veneer composed of mixed tapestry bricks ranging in light beige to red brown. Cast stone is used to accentuate entrances rectangular pilaster capitals, capstones, and window dressings. The building retains most of its original single-glazed steel-sash windows stacked and arranged tripartite between structural bays.

The building has a flat roof with a raised parapet only above the eastern protruding main entrance. The roof perimeter on the remaining eastern side and extending on the northern and southern side consists of a perimeter copper gutter extending upward to form a slanted sheet-copper Mansard-like sloped roof with an upper gravel-stop. The easternmost portion of the perimeter roof over the central core on the northern and southern sides has a cast-stone parapet extension. The western wing's perimeter parapet is raised with a wood-frame parapet wall sheathed with stainless steel sheet metal. Roof membranes are a mixture of built-up hot tar with gravel ballast and elastomeric roofing. Three penthouses are located on the roof, with the easternmost centrally located penthouse, extending upward approximately 8 feet above the eastern parapet, although its location is several feet west of the parapet wall, it still remains visible from the pedestrian area of Rainier Vista, as does one large stainless steel exhaust vent and the tops of the easternmost light scoops/skylights.

4. BUILDING ALTERATIONS

Google Maps



Aerial View showing location of 1951 alterations

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Detail of 1951 parapet wall at west wing

In 1951, an addition designed by the University of Washington Department of Buildings and Grounds, was completed that converted attic space in Bagley Hall's western wing into additional laboratories. The perimeter parapet of the west wing roof was raised with a steel and wood-frame parapet wall sheathed with stainless steel sheet metal. Rows of glass block or louvered vents were placed in the new wall above the old parapet line.[23]

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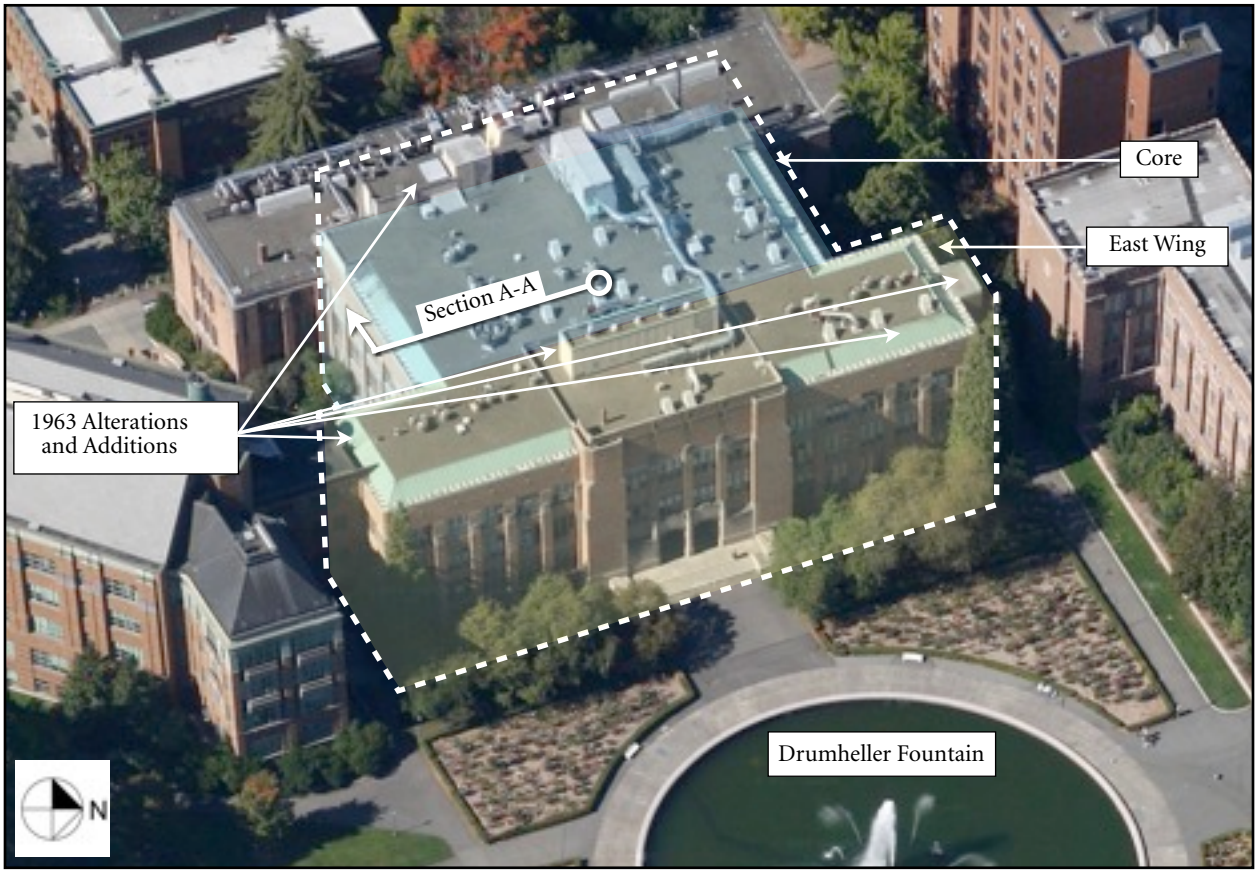
[23] University of Washington Dept. of Building and Grounds, "Bagley Hall Alteration, Third Floor," August 4, 1978, revised June 20, 1990, sht. 117RR-050.

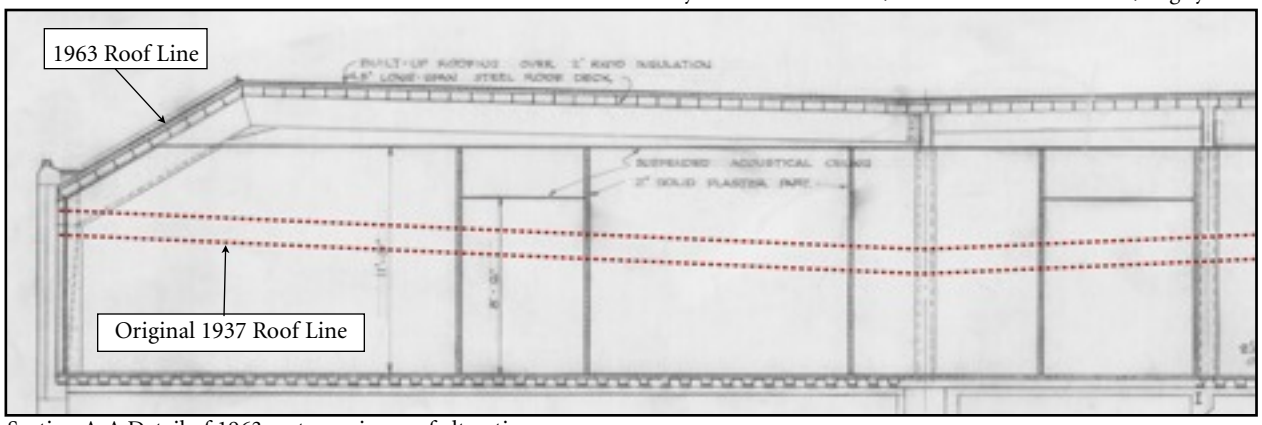
Google Maps



Aerial View showing location of 1963 alterations

In 1963, alterations and additions designed by the architectural firm of Carlson, Eley and Grevstad were completed. The upper mechanical plenum spaces in the eastern wing and central hall of Bagley Hall were converted for additional laboratory use. The roof over this area was raised approximately 6 feet to provide an 11-foot floor-to-ceiling height on the new fourth floor. The ceilings at the perimeter walls sloped downward to match the original roof parapet condition, with sheet copper roofing slanting upward to a gravel-stop at the new roof. A parapet extension was added on the

Carlson-Eley-Grevstad Architects, Alterations and Additions, Bagley Hall



Section A-A Detail of 1963 eastern wing roof alterations

westernmost roof perimeter of the central core. Additional egress stairways were also added to the building's eastern wing on both the north and southern sides.

Three large penthouses were also constructed on the building's roof as part of the 1963 alterations. One was centrally located on the higher roof above the building's eastern entry containing an elevator shaft extension, a stair, a hydrogenation laboratory, a water still, and an exhaust airshaft. Two penthouses containing fan rooms were located at the western edge of the central core. [24]

Several mechanical equipment upgrades including vents and ducts were added to the building's roof to accommodate additional equipment after 1963.[25]

In 1995, a major addition was constructed on the southern side of the building. The addition, known as the Chemistry Building, was designed by the Santa Monica, California, based architectural firm of Moore, Ruble, Yudel, in association with the Seattle based architectural firm of Loschky, Marquart & Nesholm (now LMN). The four-story Chemistry Building was designed as a masonry veneer Post-Modern style building with four large steel exhaust vents clustered at its core.

Recent additions to the roof include a large stainless steel duct on the building's northeastern roof, and numerous roof monitors/sky lights, several of which are visible from the pedestrian area of Rainier Vista.

The building is primarily visible from Drumheller Fountain, from Okanogan Lane NE, a pedestrian plaza to the west of the Chemistry Building, and NE Thurston Lane.

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View of eastern façade from Drumheller Fountain Vista

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[24] Carlson-Eley-Grevstad Architects, Alterations and Additions, Bagley Hall, University of Washington, November 15, 1961, sht. A11-A3, A9, A10, & A12.

[25] University of Washington Engineering Services, "Bagley Hall, Roof Record Plan," revised Janyuary21, sht. 9-223A-B, 9-22, 9-224 A-B, 9-225, 9-226, 9-227.

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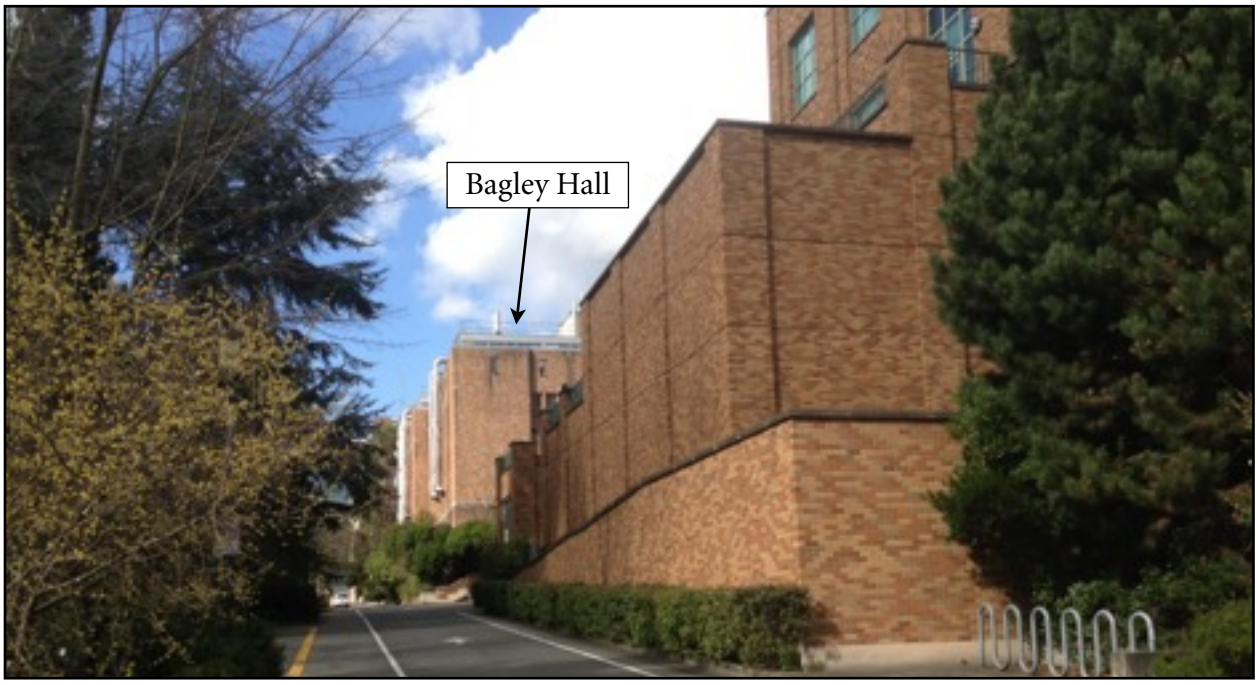

Viewing north along Okanogan Lane NE

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Viewing the western portion of the southern façade from the pedestrian plaza

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Viewing the eastern portion of the southern façade from the pedestrian plaza

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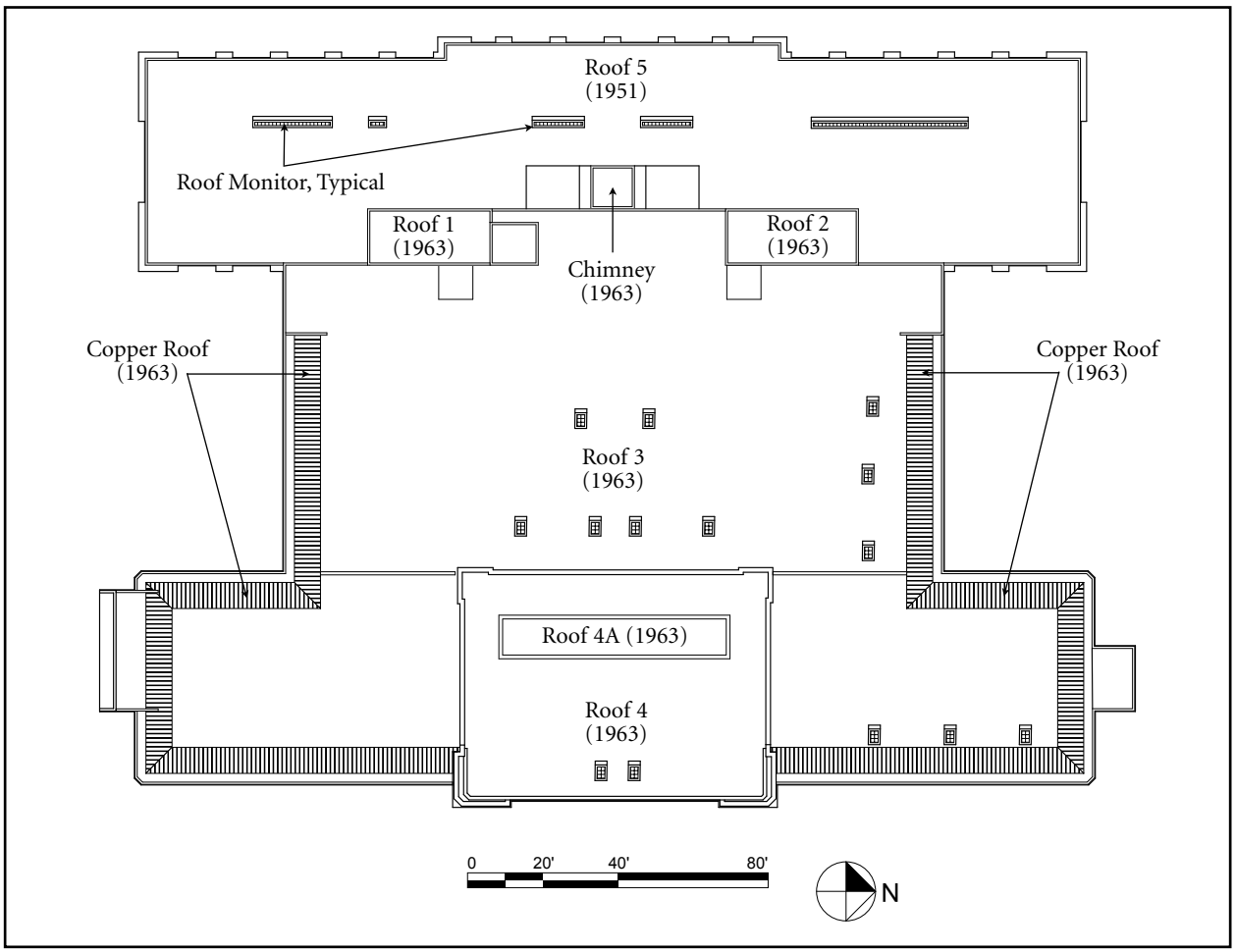
Viewing east along NE Thurston Lane

5. IDENTIFICATION OF CONDITIONS REQUIRING RECOMMENDATIONS



Bagley Hall Roof Plan Diagram

Recommendations will be provided for the parts of the building that are older than 45 years of age (within 5 years of potentially being considered historic given the length of time construction projects may require), and where the proposed roof replacement and upgrades will require changes to the existing façade-to-roof transition that will be visible to the public viewing the structure from the street or other public courtyards.

Façade-to-roof transitions that have been identified are the copper gutter and mansard roof (Copper Roof) wrapping the building's eastern wing and eastern portion of the building's core section, and the perimeter parapet wall that was added to the western wing in 1951 (Roof 5). Other conditions that have been identified are the penthouse located in the center of the east wing and its associated rooftop mounted mechanical equipment (Roof 4A), and the mechanical equipment and roof monitors on the northern end of the east wing (Roof 4), are currently visible to public viewing from the ground.

6. Façade-to-Roof Transition Conditions

6.1 Copper Gutter and Mansard Roof

The existing brick masonry veneer of the east wing and central core is terminated with a cast-stone cap. An existing one piece cap flashing and gutter system are installed at the roof edge and on top of the cast-stone wall cap. The gutter system is formed to slope to several roof drains. The gutter and flashing are approximately 24 inches wide. The cap flashing and gutter system transition to a slanted sheet-copper mansard roof with standing seams. The sheet-copper roof slopes upward and terminates with a gravel-stop at a flat upper roof. The slanted roof measures approximately 6 feet horizontally sloped at a 7 in 12 pitch. The copper has attained a natural green patina. The copper mansard roof and cap flashing are visible from Rainier Vista below.

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View of gutter system, mansard roof, and gravel stop from upper roof

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View of mansard roof from Drumheller Fountain

6.2 West Wing Parapet

The existing brick masonry veneer of the west wing is capped with a stainless steel sheet metal cap flashing. The cap flashing transitions to an approximately 24 inches high vertical wood-framed parapet wall clad with stainless steel sheet metal that is recessed approximately 12 inches from the outer face of the pilasters of the original exterior wall below. At the base of the clad parapet wall there is an 8 inch high band of alternating glass-block clerestory windows and horizontal stainless steel vents. The upper 16 inches of the clad parapet wall transitions to a cap flashing and gravel stop that meets a flat roof above. The clad parapet wall is visible from below. The stainless steel sheet metal clad parapet wall and roof were added to the original building in 1951.

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Viewing stainless steel sheet metal sheathed parapet wall at west wing from NE Thurston Lane below

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View of Bagley Hall's western entrance

6.3 East Wing Penthouse

The east wing penthouse measures approximately 10 feet east-west and 50 feet north-south and is approximately 10 feet high. The penthouse (Roof 4A) is centered north-south on the roof of the east wing and approximately 35 feet from the face of the eastern façade. The penthouse is constructed of precast concrete panels painted a beige-yellow color with copper copings. Two prominent pieces of mechanical equipment are placed on the roof of the penthouse. The penthouse is visible from across Rainier Vista in the courtyard at the entry to Guggenheim Hall.

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Viewing east wing penthouse from Drumheller Fountain

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Viewing penthouse from east wing roof

6.4 Roof Monitors and Mechanical Equipment

Non-original roof monitors and mechanical equipment are installed on the roof of the northern end of the east wing (Roof 4). There are three evenly spaced roof monitors measuring approximately 5 feet east-west by 2 feet 6 inches north-south installed approximately 10 feet from the face of the eastern façade. The roof monitors are approximately 3 feet high. The eastern faces of the monitors have angled-glazed panels to provide daylight to the windowless laboratories below. The top of the monitors are flat and measure approximately 2 feet 6 inches square. The monitors are clad with sheet metal. The mechanical equipment consists of horizontal ducting with a single vertical exhaust vent. These are visible from Rainier Vista and Drumheller Fountain.

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Viewing roof monitors and mechanical equipment located on the northern end of the east wing

7. Recommendations

7.1 General Direction for All Conditions

All alterations shall be designed and implemented per "The Secretary of the Interior's Standards for the Treatment of Historic Properties, with Guidelines for preserving, rehabilitating, restoring & reconstructing Historic Buildings." Changes should be in keeping with the architectural intent of the original design, yet easily identifiable as non-original. Where possible, all changes should be reversible, should they need to be altered in the future. The visual impact of the changes, as seen from below, should be minimized where feasible.

7.2 Recommendations for Specific Conditions

7.2.1 Copper Gutter and Mansard Roof

The proposed scope of work requires raising the slanted sheet copper roof and gravel stop at the upper roof transition. The copper wall cap and gutter should remain in their current configuration. The new copper slanted sheet roof section should match the slope of the existing roof although the slope could be altered if necessary. The size and frequency of the standing seams of the new copper roof should match the existing material.

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View of existing copper gutter and mansard roof condition from Drumheller Fountain

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View of proposed copper gutter and mansard roof condition from Drumheller Fountain - in new copper

The Johnson Partnership

View of proposed copper gutter and mansard roof condition from Drumheller Fountain - after patina or green metal.

7.2.2 West Wing Parapet

The parapet wall needs to be raised for the roofing improvements. The new cladding material should match the stainless steel sheet metal cladding of the existing parapet and only raise the parapet wall the minimum amount required for proper roof function (three options shown, option two preferred). Final panel sizing and detailing should be reviewed prior to construction.

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View of typical existing west wing parapet wall condition

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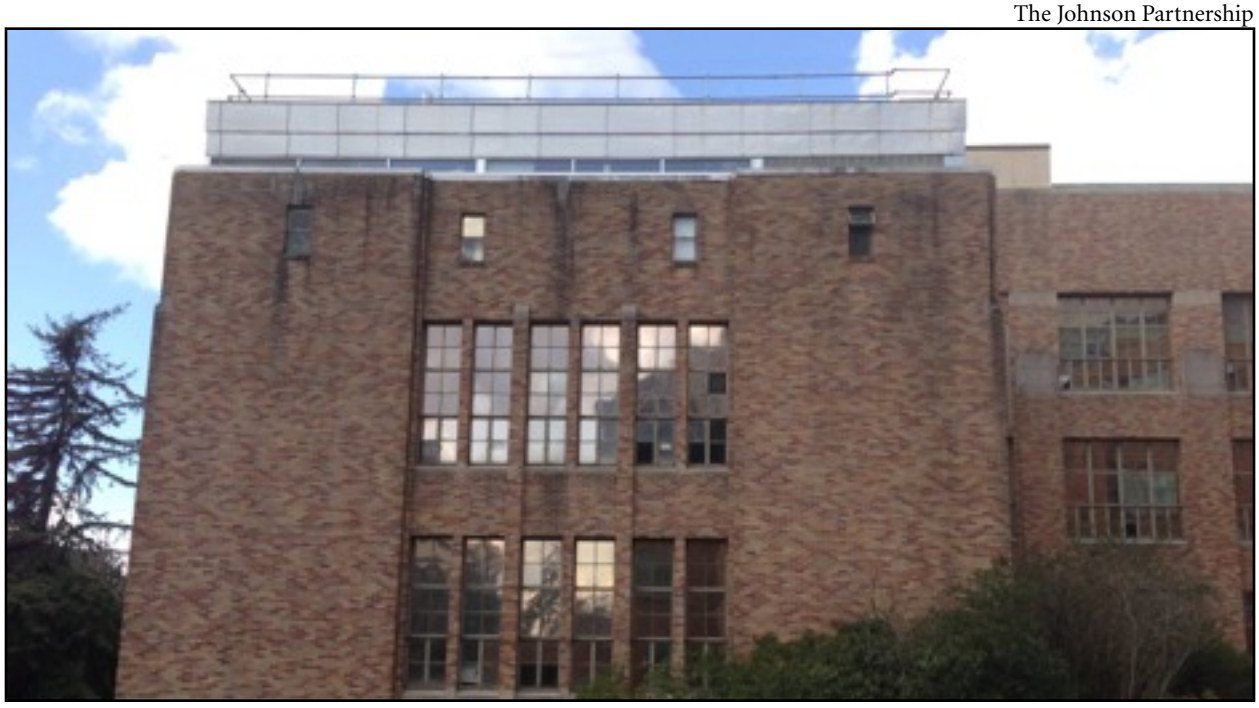
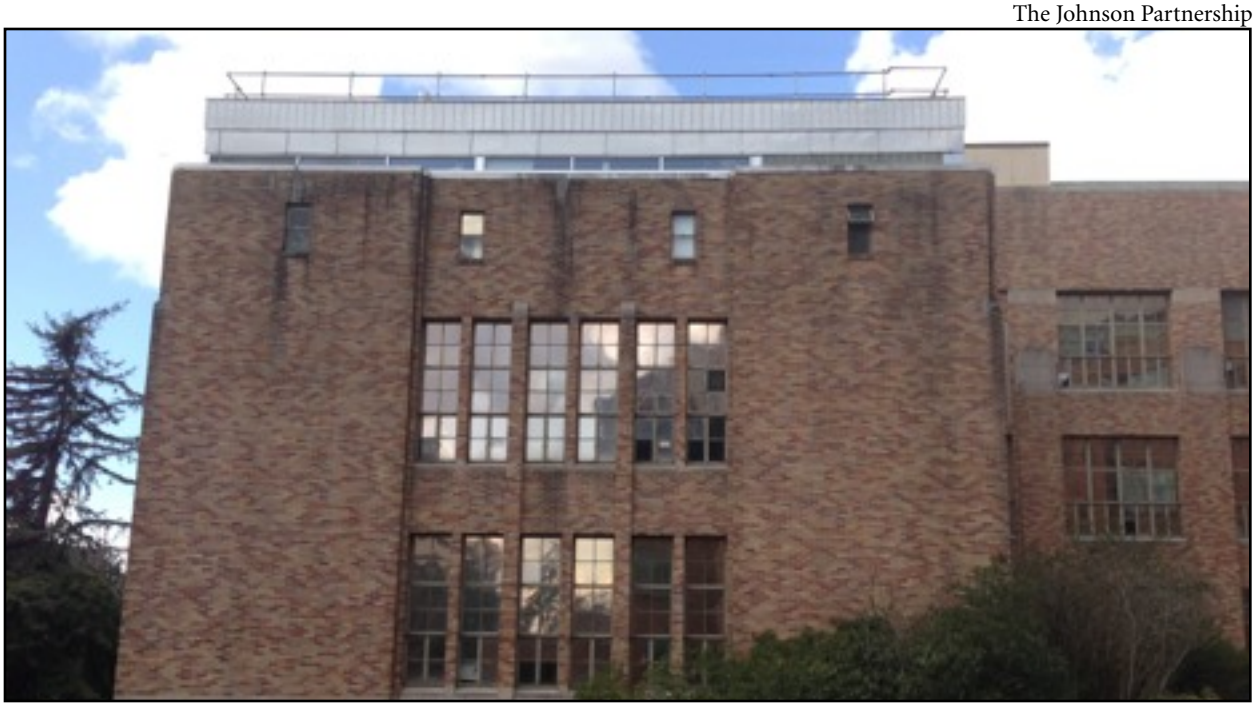


Proposed west wing parapet wall condition Option 1

The Johnson Partnership



Proposed west wing parapet wall condition Option 2

The Johnson Partnership

Proposed west wing parapet wall condition Option 3

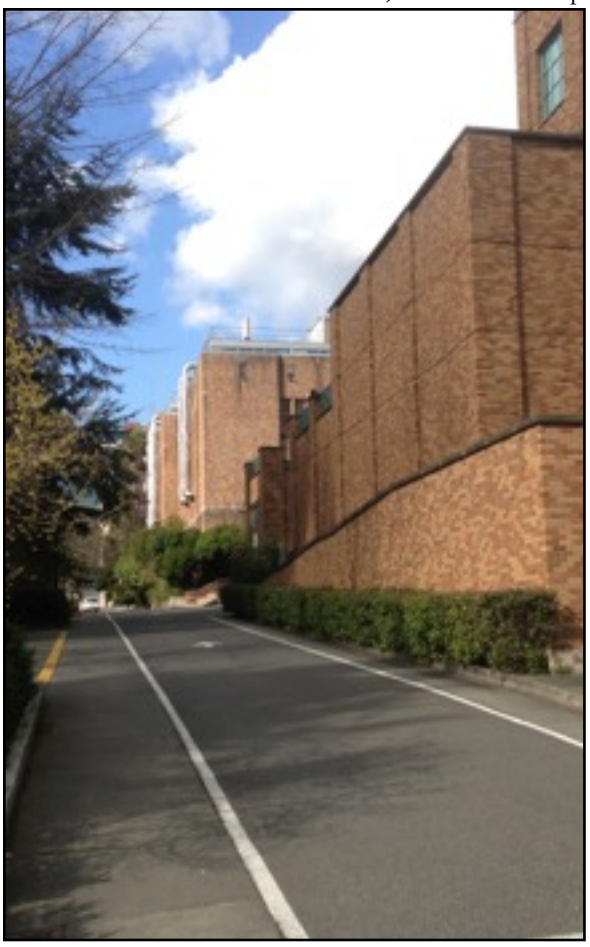
The Johnson Partnership

Existing view from Northeast Stevens Way

The Johnson Partnership

Proposed view from Northeast Stevens Way, Option 1

The Johnson Partnership



Existing view from Okanogan

The Johnson Partnership

Proposed view from Okanogan, Option 1

7.2.3 East Wing Penthouse

The existing mechanical equipment should be relocated to vent through the western wall of the penthouse if feasible. The penthouse should be a neutral color to be more consistent with Seattle skies, possibly a light cool grey (Large sample areas should be painted on the penthouse for evaluation and approval prior to painting the entire penthouse). The penthouse is not considered a significant contributing feature of the building. Changes should try to minimize the visibility of the penthouse.

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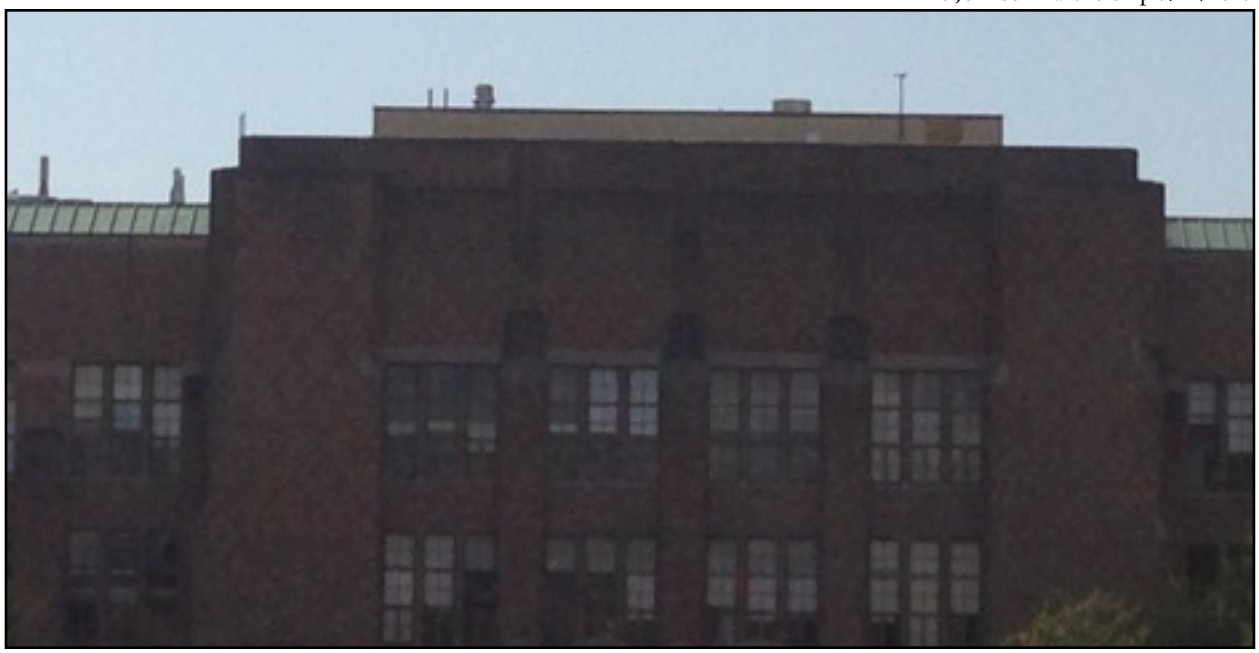
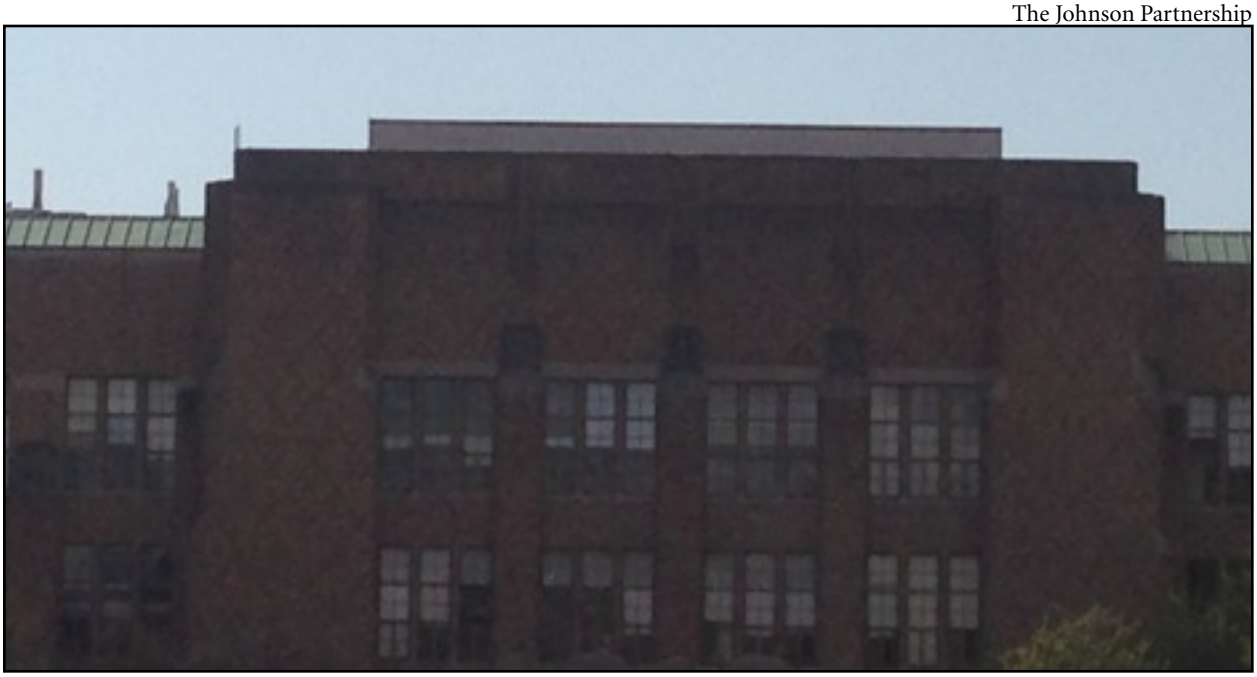


View of existing east wing penthouse from across Rainier Vista

The Johnson Partnership



View of proposed changes to east wing penthouse from across Rainier Vista

7.2.4 East Wing Roof Monitors and Mechanical Equipment

The proposed scope of work requires the removal of the roof monitors for proper function of the new roof system. New roof monitors should be fabricated to allow the roof surface to be raised for the roofing improvements. The three monitors visible from Drumheller Fountain will be configured with a shallower slope and will no longer be visible from the fountain plaza below.

The existing mechanical equipment and exhaust vent is currently in use and can not be easily re-located . It will remain visible from the fountain plaza below.

The existing roof is copper that has aged to green. The new roof should also be copper and allowed to age to green; the roof will be brown initially until the natural patina process turns the copper green. This process may take a number of years.

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View of existing roof monitors and mechanical equipment from Drumheller Fountain

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View of proposed roof monitors and relocated mechanical equipment from Drumheller Fountain

8. SUMMARY

The proposed replacement and upgrade to the roofing system will slightly alter the appearance of the subject building. By following the above recommendations, the negative visible impacts to the building's fabric and appearance should be minimized and consistent with the intent of the "The Secretary of the Interior's Standards for the Treatment of Historic Properties, with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings." Additionally reducing some of the existing visual 'noise' of the roofline should improve the visual appearance of the subject building.

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