

The City of Seattle

Mailing Address: PD Box 94649 Seattle WA 98124-4640 Street Address: 700 5th Ave Suite 1700

Name: Mechanical Engineering BuildingYear Built:1959

Street and Number: Assessor's File No: Legal Description:	3900 E Stevens Way NE (parcel address: 4000 15 th Avenue NE) 1625049001 (portion of) Those portions of Government Lots 2, 3 and 4, lying west of Montlake Blvd NE, north of NE Pacific Street and north of NE Pacific Place; the west ½ of the northwest ¼, and the northwest ¼ of the southwest ¼, lying east of 15 th Avenue NE and south of NE 45 th Street and north of NE Pacific Street; all in Section 16, T25N, R4E, W.M.		
Plat Name: N/A	Block: N/A	Lot:	N/A
Present Owner: Present Use: Address:	University of Washington Educational (classrooms, laboratories, offices) Julie Blakeslee, Environmental and Land Use Planner Capital Planning & Development University Facilities Building, Box 352205 Seattle, WA 98195-220505		
Original Owner:	University of Washington		
Original Use:	Classrooms, laboratories, and offices		
Architect:	Carlson, Eley, Grevstad Architects		
Submitted by:	Katie Pratt and Spencer Howard, Northwest Vernacular on behalf of Julie Blakeslee, UW Capital Planning & Development		
Address:	3377 Bethel Rd SE, Suite 107 #318, Port Orchard, WA 98366		
Phone:	(360) 813-0772	Date:	
Reviewed:		Date:	
	(Historic Preservation Officer)		

(Historic Preservation Officer)

Mechanical Engineering Building



NORTHWEST VERNACULAR April 2019



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1. Property Data

Historic/Current Name:	Mechanical Engineering Building
Address:	3900 E Stevens Way NE (parcel address: 4000 15 th Avenue NE)
Site Location:	Located along the east side of campus along the east side of E Stevens Way NE, and immediately north of Snohomish Lane. The building is south of Loew Hall and west of the Engineering Annex.
Tax Parcel Number:	1625049001 (portion of)
Legal Description:	Those portions of Government Lots 2, 3 and 4, lying west of Montlake Blvd NE, north of NE Pacific Street and north of NE Pacific Place; the west ½ of the northwest ¼, and the northwest ¼ of the southwest ¼, lying east of 15 th Avenue NE and south of NE 45 th Street and north of NE Pacific Street; all in Section 16, T25N, R4E, W.M
Original Construction Date:	1959
Original/Present Use:	Educational (classrooms, laboratories, offices)
Original Architect:	Carlson, Eley, Grevstad
Structural Engineers:	Stevenson & Rubens
Landscape Architect:	Beardsley & Brauner
Mechanical & Electrical Engineers:	Bouillon & Griffith
Building Size:	97,768 gross square feet, 84 by 251 foot plan with a 38 by 101 foot southeast wing
Original/Present Owner:	University of Washington
Owner's Representative: Owner's Consultant:	Julie Blakeslee, Environmental and Land Use Planner Capital Planning & Development University Facilities Building, Box 352205 Seattle, WA 98195-2205 Katie Pratt and Spencer Howard Northwest Vernacular 3377 Bethel Rd SE, Suite 107-318 Port Orchard, WA 98366



2. Architectural Description

For contemporary and historic images, see Figures 12 through 54.

CAMPUS SETTING AND SITE

Located in the southeast portion of the central campus, the building fronts E Stevens Way NE. The four-story building (with a partial basement) has an L-shaped plan. The primary facades are the west and south, with the main entrance on the south facade. The site slopes downward from west to east. Loew Hall (1969) is just north of the building, with a paved passageway, just over 30-feet wide, between the two buildings. The Bill and Melinda Gates Center for Computer Science and Engineering (2019) is south of the building, with a landscaped passageway (Snohomish Lane), over 65-feet wide, between the two buildings. **(Figures 1 through 5)**

Adjacent buildings to the west, across E Stevens Way NE, include (listed south to north) the Paul G. Allen Center for Computer Science and Engineering (2003), the Electrical Engineering Building (1998), the Aerospace and Engineering Research Building (1969), and the Aerodynamics Laboratory (1917). The building's west facade is set back from the east edge of the sidewalk along E Stevens Way NE—30 feet at the north and central portions, and 20 feet at the south end where the corner of the building steps out slightly.

The east side of the building overlooks a paved service court space, just over 30-feet wide, between the Mechanical Engineering Building and the Engineering Annex (1909, 1920), with the Power Plant (1909, expanded 1932) and Plant Operations Building (1929) visible east of the Engineering Annex. The north side of the building's southeast corner connects to the south end of the Engineering Annex. The east side of the building's southeast corner fronts Jefferson Road NE.

Stylistically the building is an example of post-World War II modernist architecture on campus that bridges the transition from the last Collegiate Gothic style buildings with the more contemporary styles popular on campus during the 1960s and 1970s. For example, the Music (1950) and Art (1949) buildings, designed by Whitehouse and Price, were the last built to complete the Liberal Arts Quad and reflect the Collegiate Gothic style prominent during campus construction throughout the previous three decades. Beginning in the 1960s, new construction on campus began to exhibit styles like Brutalism, evident on buildings such as Kane Hall (1971) and Gould Hall (1972). **(Figures 52 through 54)**

The Mechanical Engineering Building draws on neoclassical elements of the Collegiate Gothic style. Referential design elements include frame detailing around window bays and at entrances, slender vertical emphasis of pilasters, casement windows, and the use of brick and cast stone. The building's brick continues the raked face surface texture and shades of light brown and red evident on Collegiate Gothic style buildings on campus. The use of cast stone tinted slightly to blend with the warm brick tones echoes the use of terra cotta.



The building's form communicates internal functions and associated hierarchies through the treatment of the southwest corner administrative offices and main entrance and the extending classroom and laboratory spaces. The southwest corner projects from the main building mass, floats above grade on piers, and features slender pilasters framing vertical bays at the windows and main entrance. The classroom and laboratory spaces are set into the site and emphasized by areaways, horizontal window bands at classrooms/laboratories/faculty offices, vertical window bands at stairwells, and a thin, flat cast stone parapet cap. The glazing putty bevel on the windows has been placed on the interior, rather than exterior, which allows the cast stone detailing to be the prominent wall feature. It does this by providing a more flat-plane character to the window bays in contrast with the deep glazing putty profiles on Collegiate Gothic style buildings.

Relative to other campus building of the period, the Mechanical Engineering Building most directly relates to More Hall (1946, addition in 1948), designed by Charles Bebb and John Paul Jones. More Hall is located along E Stevens Way NE, south of the Mechanical Engineering Building and contains the Department of Civil Engineering and the structural testing laboratory. The Mechanical Engineering Building and More Hall framed an open lawn area along with the former Engineering Building (built between 1937-1948, partially demolished 1994, replaced 2003 by the Paul G. Allen Center for Computer Science). The open lawn area, with sidewalks connecting between the associated buildings, was oriented around the intersection of E Stevens Way NE and Snohomish Lane with the main open lawn area extending east between the Mechanical Engineering Building and More Hall. The original landscaping and hardscape for the Mechanical Engineering Building established the north side of this lawn. This focal area was established at the site of the former Washington Circle. **(Figures 4 through 7, 54)**

More Hall provided a stylistic precedent for the Mechanical Engineering Building with its use of horizontal window bands at classrooms, brick veneer (shades of light brown and red), and tinted cast stone trim.

THE BUILDING AND CHANGES THROUGH TIME

The building's L-shaped plan consists of the main building volume and classrooms within the length of the "L" and parallel to the adjacent Engineering Annex. The foot of the "L" serves as a connecting wing linking to the south end of the Engineering Annex and contains classrooms, laboratories, and faculty offices. The height of the Engineering Annex and the site's slope both required and allowed this connecting wing to be slightly taller than the west portion of the building, giving this wing a third story without changing the building's scale along E Stevens Way NE. **(Figures 61 through 72)**

The building's design establishes the southwest corner as the prominent, vertically emphasized building mass, floating over a low plinth of ground floor and basement level windows. This vertical massing contrasts with the horizontal emphasis of the north and east wings. The department's administrative offices are in the southwest corner of the building on the first floor off the main building entrance. Cast stone detailing creates



vertical frames that tie together the first and second story windows. A thin cast stone band marks the transition from the plinth to the upper stories. The building facades extend north and east from the central mass at the southwest corner and utilize cast stone to frame horizontal window bands at each story with brick veneer marking the floor level transitions. Both the varied tone tan/red brick veneer and the rose/pink hue to the cast stone detailing are a direct design intent to relate to and integrate with materials and forms used in the earlier Collegiate Gothic style buildings. **(Figures 12 through 14)**

Landscape

There are three distinct landscaping areas around the building, each serving slightly different roles. The first extends along the west side of the building, wrapping slightly around at the northwest corner, and serves as an extension of the campus grounds linking the building into the broader setting. The second consists of an elevated planter wrapping around the base of the building's southwest corner and scaled to maintain visibility of the ground floor windows. The third extends along the south facade of the connecting wing and provides shade for the offices and landscaping along Snohomish Lane. **(Figures 12, 13, 55 through 56)**

Landscape along the west side consists of an open lawn between the sidewalk and the building foundation. A row of four mature maples extends along the sidewalk. An asphalt walkway extends from the sidewalk to the northwest basement and first floor entrances. On the south side of the walkway are a pair of pine trees with rhododendrons and low juniper as the understory plantings. On the north side is a dogwood tree and understory shrubs. There is a bus shelter and a sign with the building name along the edge of the sidewalk in front of the building. **(Figure 16)**

Landscape along the south connecting wing consists of a conifer and multiple Japanese maples adjacent the south wall. Parking lot C15 along Jefferson Road NE abuts the east edge of this planting area. **(Figure 22)**

A concrete curvilinear curb defines the outer edge of the planting area off the southwest corner of the building.

Foundation & Structure

The building features reinforced concrete footings and foundation walls which support the building's structure of concrete columns and beams supporting concrete floors. Portions of the painted concrete foundation are visible above grade on the outer walls. Concrete areaways along the west side of the building and along the south facade allow day lighting to basement level windows. Open steel grating covers the tops of the areaways.

Exterior Walls

The building's exterior walls consist of brick veneer laid up in a running bond with cast stone detailing at window and door openings and along the parapet.¹ A solar panel array is mounted to the south facade at the east end. **(Figures 14 through 25)**



The brick has a raked face. The colors of individual bricks used on the facades include deep red, dark brown, and several lighter shades ranging from cream to light brown. Mortar joints are concave with a cream-colored mortar with small round dark aggerate (similar to the aggregate fired into the bricks). Metal ties anchor the veneer to the concrete structure with metal angles along the base of each panel supporting the veneer (with anchor bolts supporting cast stone below the metal angle). Weep holes provide drainage for the veneer assembly. Copper flashing extends along the base of the veneer panels at the transition to cast stone details. **(Figures 31)**

The cast stone has a honed finish with a small quartz-type, off-white aggregate set in a binder having a warm, slight-pink hue. All cast stone mortar joints are color matched to the cast stone. Skyward facing mortar joints are caulked. Metal ties anchor the cast stone to the concrete structure. The cast stone is in the following places:

- The piers at the ground story level;
- The thin continuous sill marking the floor level transition from ground to first floor;
- Panels below and vertical pilasters flanking pairings of windows at the first and second stories in the southwest portion of the building to create a visual rhythm similar to columns; and
- Frames around the horizontal window banks at the first and second stories of the north and east wings.

Several copper-flashed expansion joints accommodate movement within the building and between the building and the Engineering Annex. These joints occur at the inner northeast corner of the building, and between the building and the south end of the Engineering Annex.

Surface mounted exterior lighting occurs on the east facade to provide lighting at the service court space area between the Mechanical Electrical Building and the Engineering Annex.

The connection with the Engineering Annex consists of a load bearing concrete block wall constructed immediately north of the Mechanical Engineering Building (with a 6-inch gap between the two). This wall replaces the former south facade of the Engineering Annex. Expandable metal flashing bridges the joint between the new south wall of the Engineering Annex and the north wall of the Mechanical Engineering Building. **(Figures 24, 68, 69)**

Roof

The building features a flat roof with a perimeter parapet. A small mechanical room provides access to the roof. A raised platform off the west side of this room contains mechanical equipment with a perimeter screen. Cellular antennas are mounted to the north side of the mechanical room on the building exterior. Rolled membrane roofing over rigid insulation clads the roof. Roof drains connect to the internal downspouts. A turbine project experiment is located on the west side of the roof. A metal railing around the roof perimeter is anchored to the back side of the parapet. **(Figures 25 through 26, 65 and 66)**



Windows

Steel sash windows provide daylighting and ventilation for the building. Although the original specifications and drawings called for windows to be arranged for exterior putty glazing, they were installed with the putty on the interior. This creates a smoother exterior visual character that ties in with the brick veneer and allows the subtle relief of the cast stone detailing to be more pronounced. Although the building shares the use of steel sash windows with predecessor Collegiate Gothic style buildings (1920s through 1940s) on campus, placing the putty bevel on the interior created a modern design using the same building materials. **(Figure 30, 31, 67, 68, and 72)**

Interior finishes consist of concrete jambs, soffits, and stools (interior sills) with canted corners at the transition to interior wall surfaces. The window frames have interior metal brackets for roller blinds. Windows at restrooms have textured privacy glass.

Multiple windows feature reflective film applied to the interior of the lites to reduce solar gain, and some of the upper horizontal sash have been covered over completely from the interior. A variety of window blinds are used on the building interior to help reduce solar gain. Louvers added in the upper lites accommodate laboratory-specific ventilation needs.

Windows configurations consist of:

- Four-lite windows, having fixed horizontal upper lite and lower hopper lite, with a pair of vertical lites of which one lite is a casement sash with a latch and casement stay. A narrow metal flashing projects out over the top rail of the casement sash on the exterior to shed water from the top of this operable sash. These occur at the first and second stories in single units and banks of multiple units. Metal mullions (3 1/8-inches wide) occur between each of the window units.
- Three-lite windows, having the same configuration as the four-lite windows minus the upper horizontal lite. These occur on the east wing on the south facade and south end of the east facade at the upper stories having a lower floor-ceiling height and functioning largely as offices, and at each of the upper stories on the north side of the wing.
- Two-lite windows, having the same configuration as the four-lite windows minus the upper and lower horizontal lites. These occur in two variations, one with both sash being casement and another with only one operable sash. These occur at the mechanical penthouse, ground floor, and basement.

The stairwells have their own variations that utilize the same parts, but in a narrower configuration.

• The east stairwell utilizes five-lite and four-lite windows. The five-lite windows have two fixed horizontal upper lites and a lower fixed lite, with a pair of vertical lites between. The smaller vertical lite is fixed and the other a casement sash. These four-lite windows are a narrower version of the four-lite windows described above.



• The south stairwell utilizes six-lite, five-lite, and four-lite windows. The six- and fivelite windows are variations of the four-lite windows described above, but with additional horizontal lites at the top and bottom of the window. The four-lite version is all fixed lites with two lower horizontal and two vertical lites.

Entrances

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Several entrances provide access to and egress from the building interior. The arrangement of the main entrance on the south facade corresponded to the previous cluster of engineering buildings oriented around the area immediately south of the Mechanical Engineering Building.

Main Entrance

This is the main entrance for the building and provides direct access to the department offices, classrooms, and the south stairwell and elevators for vertical circulation. The entrance consists of two sets of single lite aluminum sash doors divided by an aluminum mullion. A three-lite transom spans both sets of doors. **(Figure 35, and 71)**

An exterior platform leads up to a landing in front of the entrance. The platform is accessed via steps on the west end and the south side. Cast stone capped cheek walls flank the stairs. The concrete walkway of the platform and landing is scored into a series of wide bands. A flat, cantilevered canopy with a low parapet projects out over the platform. Cast stone wraps the outer edge and soffit of the canopy and light fixtures are mounted to the underside of the canopy.

The interior features a large vestibule with a flight of stairs leading up to the main lobby. Round aluminum hand railings with a satin finish service the stairway. The exterior brick veneer extends into this vestibule along both sides with a terrazzo floor. The terrazzo floor has alternating color bands that run east—west. The terrazzo extends east to the entrance to the south stairwell.

The terrazzo utilizes zinc alloy dividers ranging in size from 1/8- to 1/2-inch wide between different terrazzo blends. The darker border band consists of reddish, yellow, white, and black aggregate set in an off-white binder. The main floor blend consists of white aggregate with some black and reddish aggregate set in a white binder. An aluminum oxide or similar abrasive aggregate was specified for the terrazzo blends to improve traction.

North Entrance, Ground Floor

This doorway provides access to the ground floor from the service court space between the Mechanical Engineering Building and the Engineering Annex. The doorway consists of a pair of aluminum sash single lite doors with a fixed single lite transom and metal louver above the doorways. A metal wall sconce is located to the west of the doorway. **(Figure 27)**



North Entrance, First Floor

This doorway provides access to the classrooms at the north end of the building. A concrete ramp with metal railing ascends from E Stevens Way NE to this entrance, with a flight of stairs descending to the east. A pair of anodized metal two-lite doors provide access to the interior. A single lite fixed transom spans the doorways. A fixed vertical side lite is located to the west of the doorway. Both the doorway and side lite feature cast stone surrounds. A flat, cantilevered canopy projects out over the concrete landing in front of the doorway. Cast stone wraps the outer edge of the canopy. A metal wall sconce is located directly east of the doorway. Surface mounted conduit extends across the wall above the entrance.

Northwest Entrance

This doorway provides access to the ground and first floor. A pair of single lite aluminum doors provide access to the interior. A cast stone surround projects several feet out from the wall to provide an enclosed exterior vestibule for the entrance. A flush mounted ceiling light provides illumination at night. A paved ramp leads up from this doorway to E Stevens Way NE. On the interior a flight of stairs descends to the ground floor with another flight ascending to the first floor. **(Figure 29)**

East Entrance, Basement

This doorway provides access to the basement level and consists of a single lite side lite and a personnel doorway. The doorway has a single lite aluminum door. The doorway is recessed within the opening through the concrete foundation.

East Entrance, Ground Floor

This doorway provides access to the ground floor level and consists of personnel and garage doorways. The personnel doorway features a single lite aluminum door with a metal louver transom. The garage doorway consists of a metal roll up door painted to match the adjacent concrete foundation paint color. **(Figure 28)**

Southeast Entrance

This doorway provides access to the basement from Jefferson Road NE. The entrance consists of garage door opening through the concrete foundation walls. A roll up metal door provides interior access with an asphalt paved parking/driveway connection to the road.

South Entrance

This doorway provides access to the south stairwell. A pair of single lite aluminum doors provide access to the interior. A cast stone surround projects several feet out from the wall to provide an enclosed exterior vestibule for the entrance. A flush mounted ceiling light provides illumination at night. The exterior landing connects to the east end of the main entrance platform. **(Figure 36)**



Interior

The interior layout generally consists of a double loaded corridor within the floor and both double and single loaded corridors in the southeast wing. The main entrance lobby in the southwest corner links these two corridors and connects with the elevator and south stairwell. Stairwells in the north and southeast ends of the building connect to the outer ends of the corridors. The design successfully utilizes durable, utilitarian materials and flexible spaces that have changed in response to laboratory and classroom functional needs. **(Figure 70)**

Exposed ceiling beams and columns, painted with canted corners, are visible within classrooms, offices, and corridors. Concrete perimeter walls below the windows have vertical V-grooves. A forced air heating system services the building with additional wall mounted radiators located along the perimeter walls below the windows. Exposed sheet metal ducting runs along the ceiling of the corridors with fluorescent lighting fixtures mounted under the ducting.

Painted concrete block partitions define corridors and rooms. Non-loadbearing partitions are distinguished by a stacked bond using nominally 24- by 8-inch blocks. Load bearing partitions consist of smaller 16- by 8-inch blocks laid up in a running bond. A rounded profile defines the block walls' outer corners. Wall recesses provide space for drinking fountains along the corners.

Corridor doors generally consist of flush, solid core wood doors with a birch veneer and a clear coat finish. The doors have an eight-inch-tall kick plate at the bottom to protect the door. All doors are hung in painted hollow metal frames.

Dull black "hypoplate" chalkboards with aluminum trim are present in classrooms. Cork boards in classrooms also have aluminum trim, with a birch rail below them, bolted to the concrete block wall. Birch board coat racks with aluminum hooks are bolted to the concrete block classroom walls. Round, fin-type, steel clocks are wall-mounted in upper floor corridors.

Corridors in the upper floors have sealed concrete and contemporary composition sheet flooring, wall mounted conduit raceways, fluorescent light fixtures, and rubber base.

Classrooms have contemporary vinyl composition sheet flooring over concrete, a suspended T-bar acoustical ceiling (which drop down partially in front of the windows), ceiling mounted projectors and screens, wall mounted conduit raceways, fluorescent light fixtures, and white boards.

Bathrooms have ceramic tile walls with painted plaster cladding on the upper wall portions, ceiling, and exposed beams.

Basement

The basement only extends below the southwest corner and southeast portion of the building. The southwest portion is below grade and contains storage and mechanical



rooms. The southeast portion contains laboratory space with the windows along the areaway on the south side of the building providing daylighting and above grade on the east end. **(Figure 61)**

Ground Floor

The main portion of the ground floor is partially below grade and consists of open laboratory volume with some small enclosed rooms along the east side and southeast corner. Windows in the areaway along the west side of the building provide daylighting and ventilation. Within the laboratory volume, low gypsum board clad walls with metal mesh above separate out the various labs. Exposed mechanical systems run along the ceiling. A restroom in the southwest portion of the building services the floor. The southeast portion is above grade and consists of a double loaded corridor with classrooms, storage, and offices on either side. **(Figures 32 through 34, and 62)**

First Floor

The main portion of the first floor consists of a central double loaded corridor with classrooms on either side. The southwest corner of the floor contains the entrance lobby and waiting area with terrazzo flooring and department administrative offices. Restrooms for the floor are located off the northeast corner of the lobby. The southeast portion of the floor consists of classrooms along the south wall with a corridor along the north side. **(Figures 35 through 41, and 63)**

Second Floor

The main portion of the second floor consists of a central double loaded corridor with classrooms on either side. The east side has a series of small study rooms that extend off the classrooms into the corridor, with short hallways between these study rooms to connect between the corridor and classrooms. Wall-mounted oak display cases (relocated from the first-floor lobby) are located across from the south stairway. Restrooms for the floor are at the north and south ends of the main portion, with a smaller restroom in the southeast portion of the floor. The southeast portion of the floor consists of a double loaded corridor with offices and faculty spaces on either side. **(Figures 42 through 48, and 64)**

Third Floor

This is the roof level for the main portion of the building with only the fan and control rooms supporting the building's mechanical functions extending north of the southwest lobby. The southeast portion of the floor consists of a double loaded corridor with faculty offices on either side. **(Figures 49 through 51, and 65)**

Vertical Circulation

Vertical circulation within the building consists of three stairwells and an elevator. The elevator is off the north side of the lobby within the southeast portion of the floor.



Stairwells are located at the north, east, and south ends of the building. Several shorter, direct flights service the fan and mechanical rooms.

Stairwells consist of half-turn stairs (two straight flights side by side with a connecting half space landing) with a concrete carriage, landing, tread, and risers. Non-skid 5- by 6-inch quarry tile provide safety nosing at each tread. The inner railing consists of a low concrete base clad with 6- by 6-inch quarry tile with a semi-matte finish and bullnose top, and a painted metal hand railing (1-1/2-inch diameter pipe) above. Outer walls have painted metal hand railings. The stairwell consists of painted concrete with a 6- by 6-inch quarry tile with a bullnose top. The first-floor level of the north stairway has acoustical tile adhered to the underside of the carriage. A 6-inch rubber base is used at the terrazzo off the first-floor lobby. Windows provide day lighting for the stairwells. **(Figures 35, 36, 41, and 50)**

The elevator consists of flush panel metal doors within a hollow metal frame at each floor. Wall-mounted call buttons control the elevator with a digital reader above the doorway indicating which floor the cab is currently on.

Alterations

Dates provided for alterations are based on drawing dates and not completed work. Original design drawings for the building dated to 1958. Depending on the scope and complexity of the projects some extended for a couple years, while others were completed the same year as the drawings were prepared.

Overall the building exterior retains a high level of integrity and original visual character. Both interior and exterior changes are addressed in the following list of alterations.

Below are key changes for the building, but did not have significant impacts to building integrity:

- 1961: Subdividing the first-floor materials testing laboratory to establish the north south corridor through the length of the floor for its current double-loaded configuration.
- 1967: Reconfiguring the north ramp in anticipation of Loew Hall's construction and relocating plantings at this location around the corner to the northwest entrance.
- 1998: Remodeling of the department offices on the west side of the lobby extensively changing them to establish the existing configuration.
- 2010: Installing the guard rail along the parapet as part of the building's reroofing.
- 2013: Exterior repairs to the cast stone, brick, and concrete and repainting of the windows.
- 2018: Re-landscaping of the lawn and area south of the building.
- 1960s to 2000s: ongoing classrooms and laboratory upgrades altering interior spaces, including new drop ceilings, technology upgrades, and seating to adapt to and support changing classroom and laboratory needs.



The chronological listing of alterations follows below. Changes for which the specific date are not known are identified by ranges based on available background information.

1959

Work included piping changes for the building designed by the University, a slab on the roof for solar heat research, and laboratory changes designed by A. A. Morris and Associates, consulting engineers. Building architects Carlson, Eley and Grevstad provided details for an exhaust air plenum and lawn sprinkler plans.

The landscape south of the building was regraded with the design by landscape architect Robert W. Chittock. The revised design established a steep bank at the west end of the lawn and then a gradual slope down to the road, removing the original stairs and adding a light standard in the southeast corner.

1960

Work included partial upgrades, including additional receptacles, to the electrical and mechanical system in the southwest portion of the basement for a temporary computer area, designed by engineers Bouillon, Griffith & Christofferson. A small office, framed with wood studs and clad with gypsum board, was added in the new computer area for a former mainframe computer.

Electric and mechanical (heating and exhaust) systems were upgraded in room G32 for a Cooperative Fuel Research (CFR) engine installation, with work designed by engineer Alvin Morris. CFR engines are used to research fuels and lubricants for internal combustion engines.

1961

Work subdivided the former open material testing laboratory into two smaller east and west volumes, establishing the existing central corridor through this floor. The new walls consisted of concrete blocks laid up in a stacked bond to match existing corridor walls to the north and south, with a steel channel at the ceiling anchoring the new wall. All new doors and trim were to match existing on the floor. This work was designed by the University of Washington.

Work also included an air conditioner installation in the basement, a new control panel for the building furnace, and construction of the Northwest Radial Utility tunnel below the building.

1962

Work included adding a new fume hood in room 116.

1963

Work included a report on "structural distress of the floor slabs and concrete block partition walls" in the building by Harvey Dodd & Associates which attributed the issues to creep during the first five years as the new building adjusted and was thought to be mostly



complete by 1963, and that the second-floor slab was built slightly thinner than designed. Minor repair work was recommended for the concrete block walls to repair cracking.

1964

Work included conduit distribution within the building from the utility tunnel and power plant including raceway trays within the corridors on each floor; adding a new partition within the executive suite in the southwest corner of the first floor; building out of a heat transfer laboratory in the basement; and adding a door at room 132 and a moveable partition and new lighting in room 119A.

1966

Work included new relite partitions and counters in rooms 143 and 144 in the southwest corner of the floor off the lobby; wiring of a Sprague Dynamometer (used to measure the power output of an engine) in rooms G31 and G32; and piping modifications in the basement in room 12A.

1967

Work included a new fume hood and piping in the basement; remodeling of room 140A off the lobby; and rebuilding of the north entrance ramp and relocation of plants off the northwest corner in preparation for construction of Loew Hall (1969). The new design for the ramp retained the landing and moved the ramp closer to the building with a more direct connection to E Stevens Way NE, removed a former tank alongside the building, and moved rhododendrons from the north side of the building to their existing location off the northwest entrance.

Landscape designs for the passageway between the Mechanical Engineering Building (MEB) and Loew Hall included a planting scheme for the north end of MEB; however, this was not implemented.

1969

Work included sound proofing all the stairwells by adhering acoustical tiles to the underside of the carriages.

1970

Work included a remodel of the southwest portion of the first-floor administrative spaces. This subdivided existing rooms and expanded into the waiting room area and the west side of the lobby to provide additional office space.

1972

Work included new exterior door numbers.

1973

Work included adding a new partition to create classroom 103.



Work included new mechanical systems for a heat power laboratory in the ground floor; and a new exhaust system in the first-floor welding area with a roof mounted blower.

1976

Work included extending steam lines and installing a wall mounted radiator in room 120.

1977

Work included the remodel of restrooms in the ground floor including replacing urinals and toilets and adding new partitions for universal access.

1978

Work included upgrades to the fire alarm system; restroom remodels on the first, second and third floors.

1980

Work included alterations to the ground floor laboratory space in G19.

1981

Work included adding fume hoods in rooms B4 (basement) and G4 (ground floor) along with associated exhaust lines and fans; adding ventilation to room 12C (testing laboratory); and installing a partition and removing lighting sections in the basement southeast laboratory spaces to create a laser lab.

1984

Work included constructing an engine test facility in the ground floor.

1985

Work included remodeling a ground floor room in the southeast wing to provide laboratory and conference room space; remodeling of second floor rooms (231, 232, 233) for engineering graphics; conversion of a ground floor classrooms (G5, G6) to offices in the southeast wing; mechanical duct changes to ground floor (G4) and basement (B4) rooms; and upgrades to a second floor classroom (238).

1986

Work included converting room 103 to a classroom; a new wall added in room G27; upgraded rooms 113, 119, 231 and 232; added a suspended ceiling in room 113; and remodeling of the department offices in the southwest corner to provide additional copy and storage space and reconfigure the waiting area and reception desk. This work separated the original waiting area from the lobby with a set of doors and flanking side lites and an existing doorway to the lobby was infilled.



Work included additional remodeling in room 119; remodel of computer room 117; upgrades to room 131 for a water jet cutter; adding direct current power to rooms G32 and G32A for an ice laboratory; and extension of services to room G32 for the engine test facility.

1988

Additional remodel work in room 117; installed new raceways for ethernet cables on the ground through third floors; new steam connection to the heat exchanger in room G32; and remodel of room 115.

1990

Remodeled rooms 105 and 106 for use as computational analysis and CIM laboratories, including new ducting, added louvers at upper window lites, film applied at window lites, a partition subdividing the room, work stations, outlets, a doorway from the corridor, and a drop ceiling.

1991

Work included the remodel of room 131; and remodel of room 242.

1992

Work included basement room alterations; relocated lockers from the former basement locker room to the east side of the second-floor corridor (these were later removed ca. 2018); and the remodel of room G32.

1993

Work included installing a new drain for the sprinkler system in the basement; and new fluorescent lighting fixtures in the southwest portion of the basement.

1995

Work included upgrades to the building's mechanical system; remodel of first floor classrooms and workshops; PCB remediation in the building within the electrical vault and construction of a new underground electrical room at the south end, west side of the space between the Mechanical Electrical Building and the Engineering Annex; and remodel of the first floor women's restroom (room 110) for universal access.

1997

Work included the remodel of room 134; installing air conditioning for rooms 232 and 233; and upgrades to the elevator.



Work included upgrades to the building's fire alarm and emergency lighting system; lobby remodel; furnishings remodel of classrooms 102, 103, 234, 235, 237, 238, 242, 243, 245-247, 248-250; and a remodel of room G27.

1999

Work included continued remodel work in G27 and work on the buildings fire alarm system.

2000

Work included the remodel of the ground floor including new chilled water system, air handling and fan coil controls.

2002

Work included installing a high-pressure compressor in the basement (rooms 4 and 6); installation of the existing wire mesh partitions in the ground floor above low solid partition walls.

2003

Work included remodeling of a first-floor room to install a scanning microscope; installing new mechanical equipment servicing the lobby; adding a low flow fume hood monitor in G27; and asbestos abatement work within the building.

2004

Work included installation of a vertical duct to the roof from the ground floor welding lab; replacement of the glass transom at the east ground floor entrance with a metal louver; construction of a welding, flow analysis, and R.P. labs in the ground floor at the south end; modification to the north ground floor entrance replacing the transom frame; and remodel of ground floor offices at the south end.

2007

Work included remodel of first floor spaces in the northwest corner, including relocating a chilled water header from Fluke Hall, outlets, lighting, and mechanical.

2010

Work included replacement of the building's roof (including new insulation, membrane roofing, walk pads, frames for roof mounted mechanical, and flashing); installation of the perimeter fall arrest anchors and guard rail.

2011

Work included communication systems upgrades for basement mechanical equipment.



Work included a communications system upgrade for the building, running telecom and data cables through multiple walls and floors and removal of some frame walls.

A second project undertook repairs to the building exterior. Exterior concrete walls were pressure washed, patched and painted. Selective repairs were made to the exterior cast stone. Steel window frames were cleaned and repainted. Caulking was replaced at transition joints at all mechanical and ladder penetrations. Cast stone soffit panels were reanchored at the main entrance. Cast stones along the parapet coping were pinned to the parapet. Helical wall ties were installed at the cast stone trim elements to anchor them to the concrete frame.

2014

Work included a fume hood addition in the ground floor (G41) including associated mechanical and electrical work.

2015

Work included basement partition wall additions at G32; and a resource conservation program audit report for the building.



3. Historic Context and Significance

EARLY DEVELOPMENT OF THE UNIVERSITY

The University of Washington began as the Washington Territorial University in 1861 when the Washington Territorial Legislature incorporated the school. The university, the first university in the territory, opened its doors to 30 students on November 4, 1861. The original campus was located on a ten-acre parcel in present-day downtown Seattle, then the outskirts of Seattle. That property was donated by Arthur and Mary Denny, Charles and Mary Terry, and Edward Lander.² The university did not maintain consistent student enrollment over the next decade, opening and closing depending upon enrollment numbers.³ The first graduate, Clara A. McCarty, graduated in June 1876. By the early 1880s, the university was more financially stable, through private donations and appropriations from the Legislature, and had steadily increasing student enrollment. In 1889 the university became the University of Washington as Washington gained statehood.

As the university flourished, the original campus became increasingly inadequate to support the growing institution. In 1891 the state legislature looked to a new site along Union Bay, initially purchasing 160 acres, and then another 580-acres in 1894.⁴ The university hired architect William E. Boone in 1891 to create a comprehensive plan for the new campus, but the Boone Plan, as it was called, was deemed too extravagant and not implemented. Not only did the new site dramatically increase the size of the campus, but the university's move to the site removed the school, at the time, from city life.

The university hired Architect Charles W. Saunders (1857-1935) to design the first building for the new campus. The Administration Building, now called Denny Hall, was completed in 1895 and classes began on September 4, 1895. The Observatory, constructed from leftover stone from the Administration Building, was also completed in 1895. No plan was utilized in siting these two buildings.

At its new location, the university once again desired to create a campus plan to guide development. Engineer professor A.H. Fuller developed a plan for the campus, called the Oval Plan, in 1898. The Oval Plan only included the northern portion of the campus. At the time the Oval Plan was developed, four buildings were present on campus: the Administration Building, Observatory, a men's dormitory (Meriwether Lewis Hall, 1896), and a women's dormitory (William Clark Hall, 1896). Fuller's Oval Plan made sense of the four buildings' locations and recommended future buildings be grouped in an oval around an open space. Science Hall (known today as Parrington Hall) was the first building constructed in accordance with this plan, followed by a power house. Science Hall was located south and west of the Administration Building. Fuller's plan also established the basic circulation relationship between the street grid west of 15th Avenue NE and the campus.



The following plans, summarized from the 2017 "Historic Resources Survey and Inventory of the University of Washington Seattle Campus", guided the university's development after the Fuller Plan until WWII.

- <u>1904 Olmsted Plan</u>. The Regents hired the Olmsted Brothers, the renowned landscape architecture firm, to design a new campus plan to incorporate land to the south of the Oval Plan campus. This plan emphasized alignments between buildings rather than views outward, resulting in an inwardly focused campus. Although a comprehensive plan, it was never implemented because soon after its completion plans were underway for the 1909 Alaska-Yukon-Pacific Exposition.
- <u>Alaska-Yukon-Pacific Exposition (AYPE), 1909</u>. The Olmsted Brothers designed the AYPE fairgrounds on the lower, undeveloped portion of the campus (southern two-thirds). The current road infrastructure, such as the central axis of Rainier Vista, and scenic vistas on the lower campus largely date from this period. The AYPE layout differed from the Olmsted's general layout for the campus particularly with its emphasis on outward vistas.⁵
- <u>Regents Plan of 1915</u>. Local architect and founder of the university's newly formed architecture department, Carl F. Gould designed this new plan. This plan became the guiding document for the university for the next two decades. The Regents Plan followed a simplified version of the Beaux Arts-design of the Olmsteds' plan. Collegiate Gothic was established as the predominant architectural style for new construction, which persisted into the 1950s. The plan established groupings of buildings on campus with the liberal arts programs on the Upper Campus, administrative and library facilities on a quadrangle at the center of campus and science programs along Rainier Vista and southern campus.⁶
- <u>1920 Revised Campus Plan</u>. This plan laid out an estimated 100 acres which were previously submerged but exposed following the completion of the Lake Washington Ship Canal. This plan did not substantially affect the main campus.
- <u>1934 Regents Plan</u>. This plan, adopted during the Great Depression, called for new dormitories near the north and northeast parts of the campus. This plan retained many elements of the 1915 Regents Plan within the core campus. **(Figure 6)**

POST-WWII CAMPUS

The end of World War II and returning veterans, supplied with the 1944 G.I. Bill, transformed the University of Washington and the nation's other higher education institutions. The G.I. Bill—or Servicemen's Readjustment Act—provided tuition, subsistence, books and supplies, equipment, and counseling services to veterans as they continued their school or college education and dramatically increased student enrollment at higher education institutions.⁷ It soon became clear that the university lacked staff and adequate facilities to accommodate the ballooning student population, which university president Raymond Allen reported as having "doubled overnight" in 1946. Student enrollment



increased from roughly 12,000 to 16,000 between 1946 and 1947 and the university added 400 faculty members.⁸

Temporary structures were erected to meet the needs of the growing university, but plans were underway for increased development to provide more classrooms and on-campus housing. Numerous buildings were constructed during the late 1940s and 1950s and reflect a campus in transition as many of them continue design elements of Collegiate Gothic prescribed in the Regents Plan of 1915 while incorporating modern, mid-20th century architectural design. Buildings from this period include: More Hall (1946, Modern), Thomson Hall (1948, Collegiate Gothic), the Art Building (1949, Collegiate Gothic), the Student Union Building/Husky Union Building (1949, Collegiate Gothic), the Music Building (1950, Collegiate Gothic), Communications Building (1951, Collegiate Gothic), Chemistry Library Building (1957, Modern), and the Mechanical Engineering Building (1959, Modern). **(Figures 52 through 58)**

Design elements that are referential to the Collegiate Gothic style and evident on these 1940s and 1950s buildings include:

- Material palette of brick with lighter trim
- Lighter stone or cast concrete banding and decorative trim
- Decorative features such as arches, finials, crenellation, buttresses, relief sculpture, and tracery.

Modern design features that are blended with elements referential to the Collegiate Gothic style include modern materials in the windows (e.g. glass block or aluminum sash) and use of concrete instead of sandstone or terra cotta, and a streamlining of decorative features.

As the 1960s dawned, Collegiate Gothic was no longer the mandated style for campus buildings and new construction reflected contemporary design trends and techniques. Fast-paced development continued from the 1950s in to the 1960s, mirroring the university's persistent growth.

The following plans, summarized from the 2017 "Historic Resources Survey and Inventory of the University of Washington Seattle Campus", guided the university's development after WWII.

- <u>1948-49 Plan by Bindon & Jones</u>. This plan reflected the university's growing enrollment, recommending the acquisition of additional acreage southwest of the original campus (the Northlake area) and the creation of additional student housing (dormitories and married student housing). **(Figure 8)**
- <u>1960 University of Washington Master Plan</u>. Developed from a series of master plans prepared by Paul Thiry and Lawrence Halprin, this plan sought to provide an organized framework for both an ambitious program of development during the 1960s, and long-range development goals. This plan sought to extend campus axis east toward Montlake Boulevard NE. **(Figure 9)**



• <u>1962 General Development Plan and 1965 General Planning and Development Plan</u>. These plans, designed by Paul Thiry (1962) and Walker & McGough (1965), recommended the introduction of larger developments on the campus including the plaza garage, Red Square and surrounding buildings, additions to Suzzallo Library, and a range of new buildings (science, medical, professional, recreation, and residential).⁹ These plans also substantially reconfigured the northwest portion of the campus. **(Figures 10 and 11)**

CONSTRUCTION & USE OF THE BUILDING

The Mechanical Engineering Building was constructed in 1959 to replace the former Engineering Hall, which was built in 1909 as the Machinery Hall for the AYPE. The Machinery Hall/Building was designed by Howard & Galloway, funded by the State of Washington, and constructed by the Westlake Corporation of St. Louis. During the AYPE, the Machinery Building housed machinery exhibits, including a timber-testing plant and a stone-testing plant which tested the breaking points of wood and stone, respectively. The Foundry was also constructed in 1909 as part of the AYPE and was designed to showcase a working foundry. After the AYPE, the Machinery Building and Foundry housed mechanical engineering classes and labs.

The new Mechanical Engineering Building directly connected to the adjacent Foundry (Engineering Annex), housing the department's lab and workshop spaces. Local architectural firm Carlson, Eley & Grevstad designed the new building, which was constructed for \$1,542,922. **(Figure 12)**

Mechanical Engineering

Engineering got its start at the University with the School of Mines in 1894 and subdepartments for Civil Engineering and Electrical Engineering were then established. At this time, mechanical and electrical engineering were grouped together in the Electrical Engineering Department and classes were held in the Administration Building (now Denny Hall). Mechanical Engineering became its own department in 1905 and was chaired by Everett O. Eastwood until 1947. Eastwood, a 1902 MIT graduate, also went on to establish the university's first master's degree program in mechanical engineering and helped found the Aeronautical Engineering Department in 1921. The Power House was converted for lab use by the electrical and mechanical engineering departments in 1905.

The 1910-1911 catalogue for the College of Engineering describes the facilities for the various engineering departments. Mechanical engineering classes and labs are listed as held in the Engineering Building and a "new shop building"—the Engineering Building was the AYPE Machinery Hall/Building (also called Engineering Hall) and the shop building was the AYPE Foundry (Engineering Annex)." ¹⁰ The shop building contained the department's wood shop, machine shop, forge shop, and foundry. Beginning with the 1935-1936 General Catalogue, mechanical engineering was located in Guggenheim Hall until the 1939-1940 academic year.¹¹



In the 1920s, classes offered by the Mechanical Engineering Department included: woodwork, metalwork, marine gas engines, airplane gas engines, mechanism, steam engineering, machine design, engines and boilers, experimental engineering, engineering materials, steam turbines, heating and ventilation, thermodynamics and refrigeration, power plants, naval architecture, ship design, marine engineering, gas engineering, and gas engine design. The courses for mechanical engineering remained fairly consistent through the 1930s, but additional courses were added to the curriculum by the mid-1940s. New classes included: manufacturing methods, production planning, production management, factory cost analysis, and quality control.

The number of mechanical engineering graduates steadily increased over the years, with 50 graduates in 1946, 110 in 1956, and 140 in 1966. The Mechanical Engineering Department has continued to grow and flourish over the last several decades. When the Engineering Hall was demolished in 1958, a new building (Mechanical Engineering Building) for mechanical engineering was erected in its place. The Engineering Hall was deemed "dangerous," so efforts began in the mid-1950s to replace the building.¹² Upon the Engineering Hall's demolition, Professor E.O. Eastwood commented, "This old building has outlived its usefulness. This is a past era—that's all there is to it."¹³

Subsequent alterations to the Foundry/Engineering Annex connected these two buildings creating a small complex for mechanical engineering. Additional engineering buildings were constructed in this part of the campus, including More Hall (1946), Loew Hall (1965), the Engineering Library (1969), Electrical Engineering Building (1998), and the Paul G. Allen Center for Computer Science and Engineering (2003). This area remains the epicenter of the University's College of Engineering. **(Figures 5 and 77-78)**

As of 2019, the Mechanical Engineering Department offers four degrees:

- Bachelor of Science in Mechanical Engineering (BSME);
- Master of Science (MSME);
- Master of Science in Engineering (MSE); and
- Doctor of Philosophy (Ph.D.).

Students and faculty in the Mechanical Engineering Department conduct research in health technology, energy, novel and automated manufacturing, clean and alternative energy, design for the environment, micro and nanotechnology, biomechanics, and advanced manufacturing and materials. Mechanical engineering graduates go on to work in biotechnology and health, environmental engineering and energy, transportation, and manufacturing and information systems.¹⁴

ARCHITECTS, ENGINEERS, AND BUILDERS

The Mechanical Engineering Building was designed by local architectural firm Carlson, Eley & Grevstad with support from structural engineers Stevenson & Rubens, mechanical and electrical engineers Bouillon & Griffith, and landscape architect Beardsley & Brauner.



Carlson, Eley & Grevstad

This firm was helmed by its three principals—Paul G. Carlson (1912-1987), Richard Eley (1914-2001), and Barney E. Grevstad (1913-1982). Carlson was born in Seattle and received his architecture degree from the University of Washington. Eley was born in Santa Ana, California, and attended the California Institute of Technology before receiving his architecture degree from the University of Southern California. Grevstad was born in Seattle and received his architecture degree from the University of Southern California.

The trio established their firm in 1946 after Eley and Grevtsad worked together at the Austin Company during World War II. The firm designed numerous buildings in Seattle and its surrounding communities during the 1950s and 1960s designing commercial, religious, multi-family, and educational projects. Carlson, Eley & Grevstad left their mark on the university campus with their design for the Mechanical Engineering Building (1959) and additions to the Physics Building/Mary Gates Hall (1954-1955) and Bagley Hall (1962-1963).

New construction projects for the firm included: Fairmount Park Elementary School (1963); the Columbia Electric Office (1959); First Church of Christ Scientist (1960) in Bellevue; a \$1 million shopping complex in Northgate (1964); and three theaters, Temple Theater in Tacoma (1948), the Princess Theater in Prosser (1948), and the Everett Motor Movie Drive-in (1950). Renovation and addition projects included Ruth School in Burien (ca. 1966) and a renovation to Bagley Hall at the University of Washington.¹⁶ (Figures 59 through 61)

Stevenson & Rubens

This structural engineering firm was founded John H. Stevenson and Boris Rubens. They had their offices in Seattle in the Olympic National Building. The duo formed their firm by 1950 and maintained their partnership until at least 1964. In addition to the Mechanical Engineering Building, Stevenson & Rubens' projects included: an air freight depot at Boeing Field, the Ernest Fortescue house at 1118 First Street in Kirkland, and the Queen Vista apartments at 1321 Queen Anne.¹⁷ They also worked with architects Carlson, Eley & Grevstad on their \$1 million Northgate shopping complex.

After 1964, they dissolved their partnership, yet both continued to work as structural engineers in Seattle. John H. Stevenson formed his own firm and Boris Rubens went into partnership with another engineer, Pratt, establishing Rubens and Pratt.

Bouillon & Griffith

This mechanical engineering firm was founded by Lincoln Bouillon (1900-1966) and Herbert (H.T.) Griffith. Their partnership began in 1931 and in 1960 the firm reorganized as a corporation with Bouillon as president, Griffith as vice-president, L. F. Christofferson as treasurer, and R. H. Schairer as secretary. It appears Christofferson was working for the firm by the late 1950s and may have been involved with the Mechanical Engineering Building project. By ca. 1967 Griffith had left the firm and the firm reformed as Bouillon, Christofferson, and Schairer, Mechanical Engineers.¹⁸ Projects completed by the firm include a hot water system at the East Waterway Terminal (1955), an office building for



Bethlehem Steel Co. (1959), and the IBM Building in Seattle (1964, in association with Jaros, Baurm & Bolles of New York City).¹⁹

Beardsley & Brauner

This landscape architecture firm was founded by Cassius "Cash" Marvin Beardsley (1910-1986) and Raymond Brauner that existed from 1956 through ca. 1965. Beardsley was born in Corvallis, Oregon, and received his degree in horticulture from Oregon State University. He moved to Seattle ca. 1941. Beardsley & Brauner's projects include the grounds of the Les Connolly residence in Kirkland (1957-1958, with Cummings & Martenson); Central Library grounds, Seattle (1958-1960, demolished); Somerset subdivision, Bellevue (1960-1961); and Seattle Public Library Southwest Branch grounds, Seattle (1960-61, with Durham, Anderson & Freed). Beardsley was a founding member and the first president of the Washington State Society of Landscape Architects (1946) and Brauner was elected president of the society in 1958.²⁰

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- Figure 84. 2019 view of the south corner of Bagley Hall showing the Carlson, Eley & Grevstad addition. The inset map shows the view area circled in red for reference. Source: Google Street View. A.52

5. Endnotes

1. The original specifications identified rugged face Clay City standard type facing brick made by Builders Brick Company with the color range selected by the architect.



2. University of Washington Libraries' Special Collections and Preservation Division, "I. The University of Washington's Early Years."

3. University of Washington Special Collections, "University Chronology," University of Washington Special Collections.

4. Jennifer Ott, "University of Washington Board of Regents;" University of Washington Libraries' Special Collections and Preservation Division, "VII. Campus Plans, 1891-1915."

5. Jennifer Ott, "University of Washington Board of Regents;" Walker, et al, "Historic Resources Survey and Inventory of the University of Washington Seattle Campus," 24-26.

6. Walker, et al, "Historic Resources Survey and Inventory," 27.

7. The G.I. Bill has been extended multiple times since its first expiration in 1956.

8. University of Washington, *Bulletin: University of Washington, Catalogue Issue 1946-1947*, June 1, 1946: 39; University of Washington, *Bulletin: University of Washington, Catalogue Issue 1947-1948*, June 7, 1947: 46.

9. "Appendix D: Campus Planning at the University of Washington," University of Washington Campus Plan (March 1999), 5.

10. Engineering Hall was designed by Howard and Galloway and constructed in 1909 for the AYPE as Machinery Hall. It was renamed after AYPE ended but was demolished in 1957 to make way for the Mechanical Engineering Building, which was completed in 1959.

11. University of Washington, Bulletin: University of Washington, Catalogue Number for 1939-1940 Sessions, General Series, November 4, 1939: 298; University of Washington, Bulletin: University of Washington, Catalogue Number for 1935-1936 Sessions, General Series, October 1, 1935: 253.

12. "Engineering Hall Weak," The Seattle Daily Times, February 3, 1954: 35.

13. U.W. Engineering Building Razed," *The Seattle Daily Times*, April 6, 1958: 30.

14. "About the Department," *Mechanical Engineering: University of Washington*, <u>https://www.me.washington.edu/about/about</u> (accessed April 17, 2019).

15. David Rash, "Carlson-Eley-Grevstad," Shaping Seattle Architecture: A Historical Guide to the Architects, edited by Jeffrey K. Ochsner (Seattle: University of Washington Press, 2014), 426.

16. Michael C. Houser, "Grevstad, Barney E.," DoCoMoMoWeWa: Embracing Northwest Modernism, http://docomomo-wewa.org/architects_detail.php?id=173 (accessed November 28, 2018).

17. "Another Outstanding Hebb & Narodick Apartment Dedicated to Luxurious Living!" The Seattle Times, November 12, 1950: 31; Margery R. Phillips, "Home of the Month – View Site in Kirkland," The Seattle Times, September 28, 1958: 33; "New Building in Northgate," The



Seattle Times, April 5, 1964: Section C, 64; "Seattle Firm Slated to Get Depot Contract," The Seattle Times, March 31, 1950: 10.

18. "Bouillon, Christofferson, and Schairer, Mechanical Engineers," Pacific Coast Architecture Database, http://pcad.lib.washington.edu/firm/5994/ (accessed November 28, 2018).

19. Byron Johnsrud, "\$11,000,000 Commercial Project Announced for Metropolitan Tract," The Seattle Times, July 1, 1962: Section C, 35; "Work Begins on \$1,500,000 Office Building," The Seattle Times, November 22, 1959: 36; "Port's Tank Farm Completed," The Seattle Times, August 28, 1955:

20. David Rash, "Beardsley, Cassius "Cash" Marvin," Shaping Seattle Architecture: A Historical Guide to the Architects, edited by Jeffrey K. Ochsner (Seattle: University of Washington Press, 2014), 420; "Architects Elect Raymond Brauner," *The Seattle Times*, October 5, 1958: 41.



SITE PLAN AND AERIAL VIEWS



Figure 1. Aerial view showing the University of Washington Seattle campus and its immediate surroundings. North is up, and the footprint of the building is shaded in red.

Base 2018 aerial courtesy

Google.



King County parcel 1625049001

Engineering Annex Jefferson Road NE E Stevens Way NE Snohomish Lane

Mechanical Engineering Building Boundary

---- Nominated property (20-foot offset from building)

Mechanical Engineering Building

Nominated property

Figure 2.

Existing University of Washington Buildings Γ

Nominated Property Map

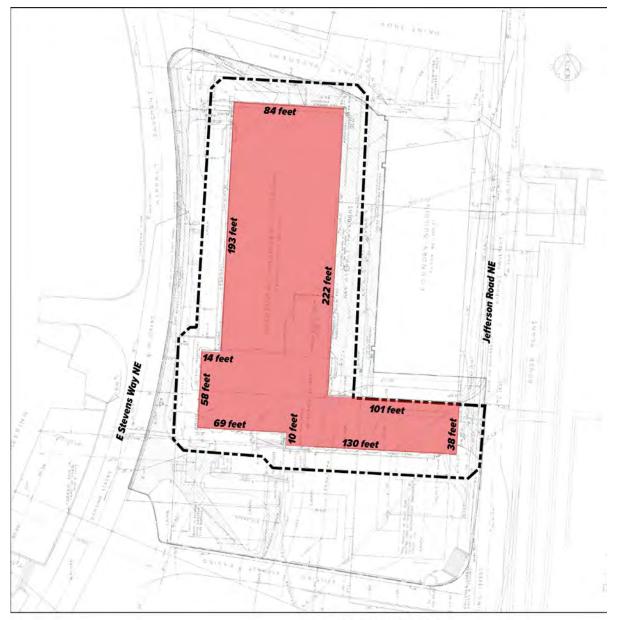


Nominated property map showing the nomination boundary with the building shaded in red.



Mechanical Engineering Building

University of Washington



Site Plan Map

Mechanical Engineering Building Boundary — – Nominated property (20-foot offset from building) Mechanical Engineering Building Nominated property

Base Site Plan, sheet A-2, dated 2/24/1958 prepared by Carlson-Eley-Grevstad Architects, courtesy of University of Washington.



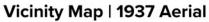
Figure 3. Site Plan. This map shows the nominated building (in red) and nomination boundary.



Landmark Nomination Page A.4



Mechanical Engineering Building
Nominated property

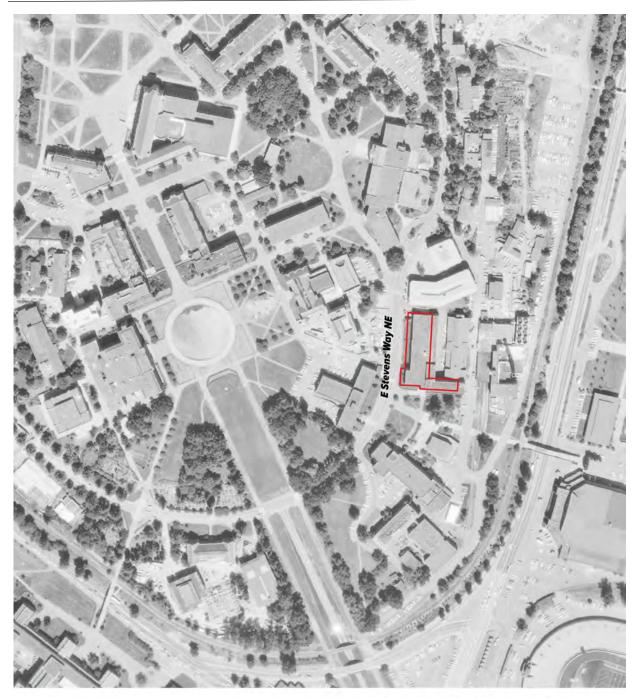


Base aerial courtesy of King County Map Vault.



Figure 4. A 1937 aerial photograph of the nominated property's vicinity with the future building site outlined in red.





Mechanical Engineering Building
Nominated property

Vicinity Map | 1969 Aerial

Base aerial courtesy of USGS.



Figure 5. A 1969 aerial photograph of the nominated property's vicinity with the building outlined in red.



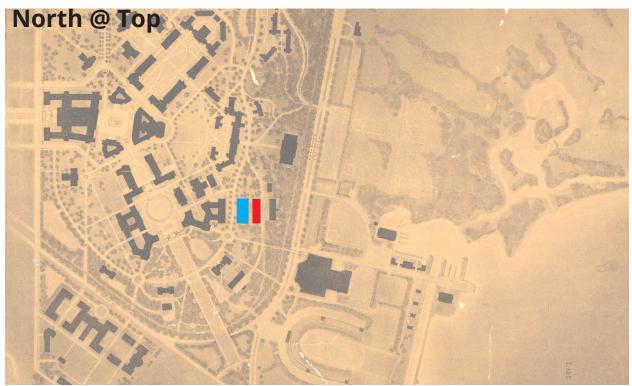


Figure 6. 1934 master plan for the campus, the Engineering Annex (Foundry) red and the former Machinery Building in blue. Source: University of Washington.

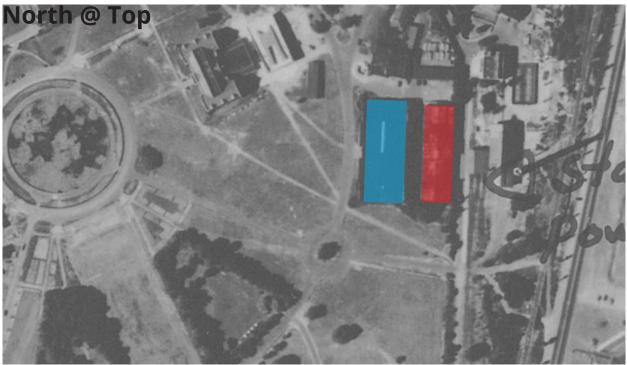


Figure 7. 1936 aerial, the Engineering Annex in red and the former Machinery Building in blue. Source: King County Map Assessor, IMAP.



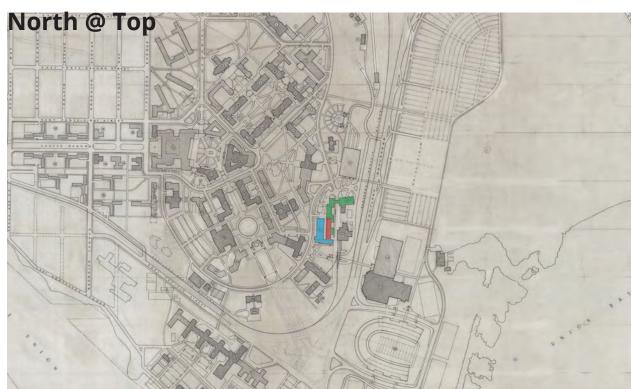


Figure 8. 1949 master plan for the campus, the proposed location of the Mechanical Engineering Building (MEB) in blue and the Engineering Annex in red. Source: University of Washington.

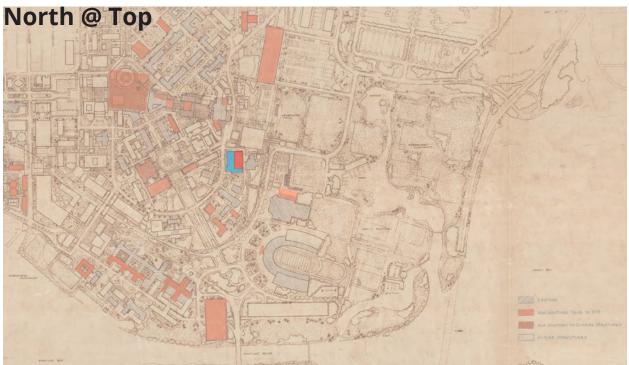


Figure 9. 1960 master plan for the campus, the MEB in blue and the Engineering Annex in red. Source: University of Washington.





Figure 10. 1962 landscape master plan for the campus, the MEB in blue and the Engineering Annex in red. Source: University of Washington.

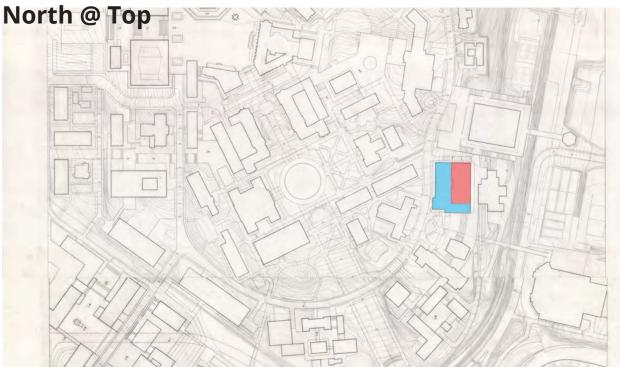


Figure 11. 1962 master plan for the campus, the MEB in blue and the Engineering Annex in red. Source: University of Washington.





Figure 12. 1959 view of the south facade following construction. Source: Photograph hanging within the Mechanical Engineering Building.



Figure 13. ca. 1969 view of the southwest corner. Source: Photograph hanging within the Mechanical Engineering Building.



PHOTOGRAPHS



Figure 14. Southwest corner.



Figure 15. Northwest corner.





Figure 16. West facade looking southeast. The floor at the area way is the ground floor.



Figure 17. North facade looking southeast with the north entrance in the foreground. This open area and the ramp were reconfigured as part of Loew Hall construction (partly visible at far left in the photograph).





Figure 18. Service court space between the Engineering Annex (left) and MEB (right), looking south.



Figure 19. East facade looking northwest along the service court space between MEB and the Engineering Annex.





Figure 20. Service court space, looking north. The concrete area in the foreground to the left of the hand railing is the below grade electrical vault.



Figure 21. Southeast corner of the building. Note the third story on the southeast wing.





Figure 22. South facade looking west.



Figure 23. West facade looking east.





Figure 24. View looking southeast from the Mechanical Engineering building roof of the Engineering Annex connection to the Mechanical Engineering building.



Figure 25. Penthouse and roof, looking east towards the southeast wing.

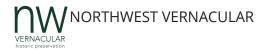




Figure 26. Main roof looking north.



Figure 27. Ground floor entrance at the service court space, off the southeast wing.





Figure 28. Ground floor entrance off the west side of the service court space.



Figure 29. Northwest entrance providing access to the north stairwell.





Figure 30. Southwest corner showing the piers at the ground story level with the first story floating above.



Figure 31. Detail (above left) of the raked face brick and color tones and the cast stone. Detail (above right) of the windows.



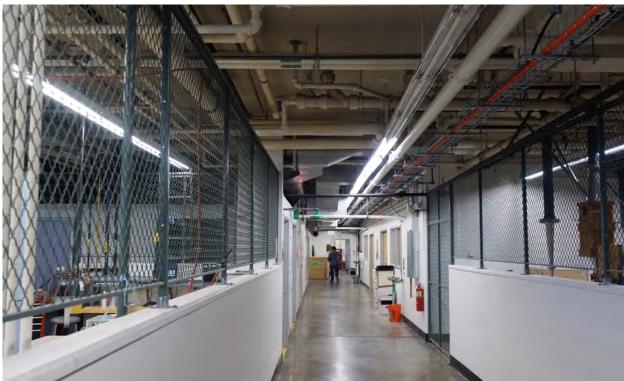


Figure 32. Ground floor looking north.



Figure 33. Ground floor looking southwest.



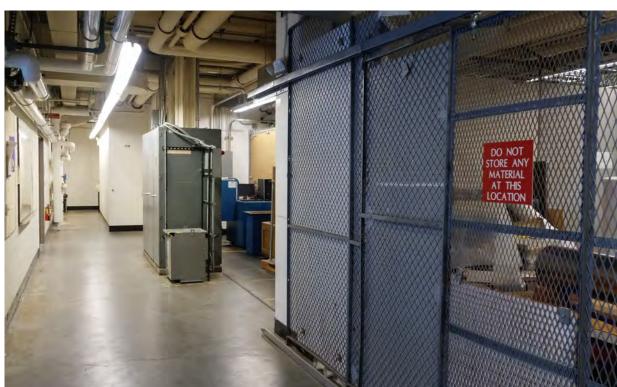


Figure 34. Ground floor, north end.

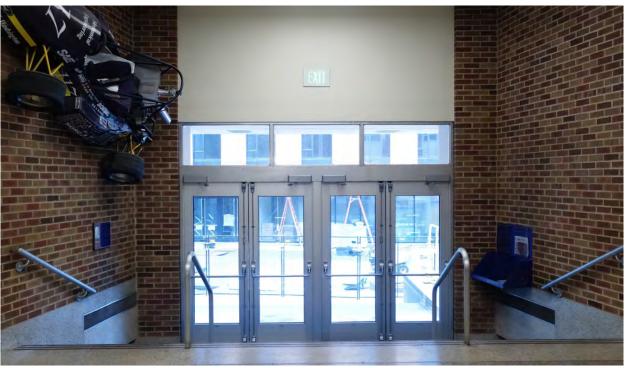


Figure 35. Main entrance looking south.



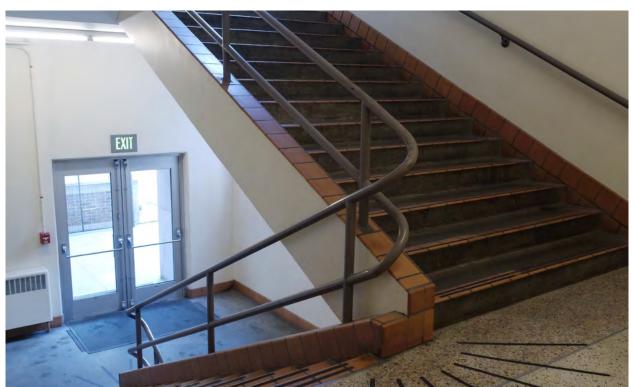


Figure 36. South stairwell looking south from the first floor.

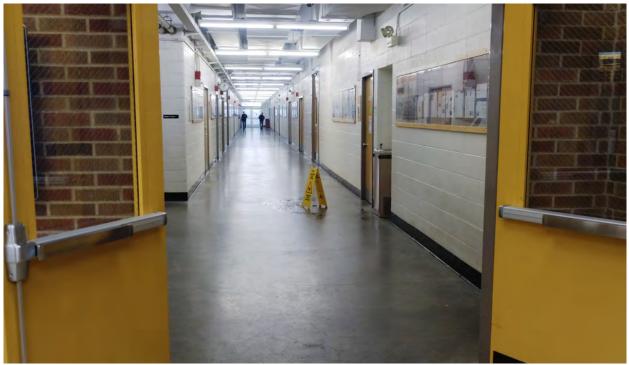


Figure 37. First floor, north corridor, looking north.



Figure 38. First floor, southeast wing corridor, looking east.



Figure 39. First floor, southeast wing corridor, windows.



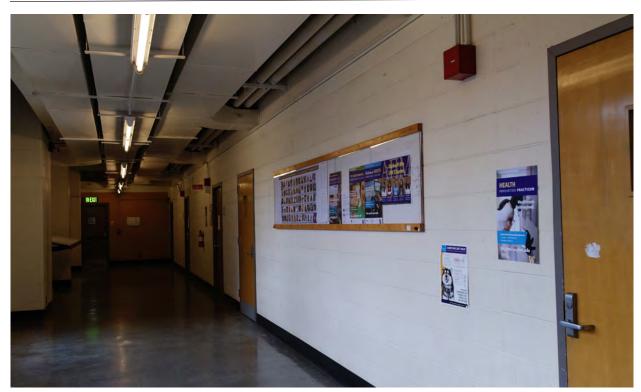


Figure 40. First floor, southeast wing corridor looking east.

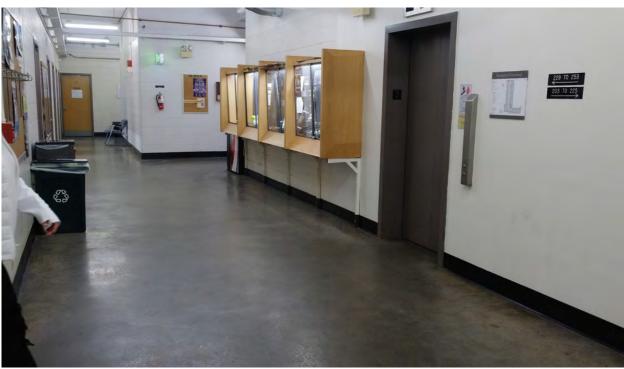


Figure 41. East stairwell, at the first story (above left), and stairwell detail (above right).





Figure 42. Second floor corridor, typical mechanical equipment.



Second floor corridor, looking west. Figure 43.





Figure 44. Second floor corridor, southeast wing, looking west.

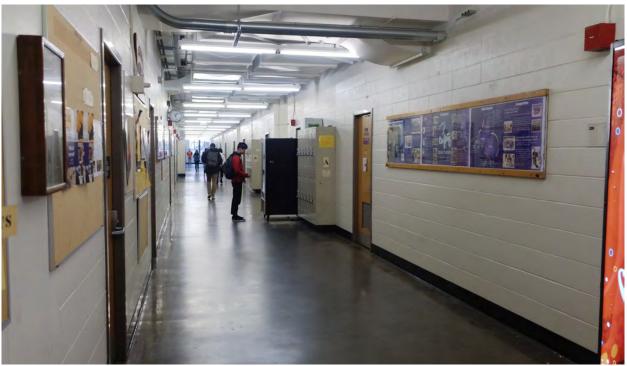


Figure 45. Second floor corridor, looking north.





Figure 46. Second floor classroom looking east.



Figure 47. Second floor classroom looking southwest.





Figure 48. Second floor classroom, looking west.

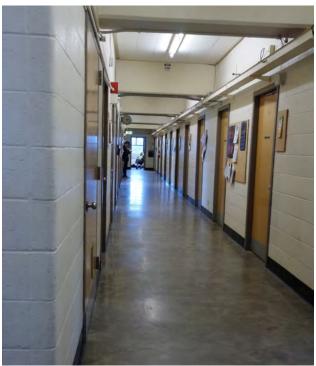


Figure 49. Third floor corridor, southeast wing, looking east.





Figure 50. Third floor hallway to the mechanical penthouse, looking north.

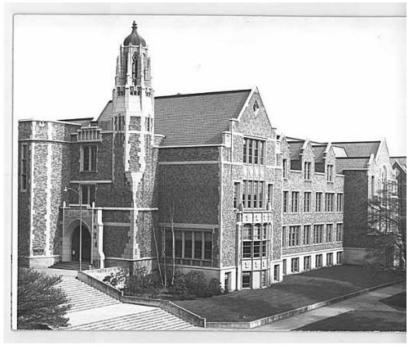


Figure 51. Third floor mechanical room, looking north.





Figure 52. 2007 view of Art Hall, built 1949 (above left) and 2016 view of Music Hall, built 1950 (above right). Photograph of Art Hall by Meredith L. Clausen, source University of Washington Special Collections, Slide Number mlc0068 and Music Hall by Mimi Sheridan, source WISAARD.



Property of MSCUA, University of Washington Libraries. Photo Coll 700

Figure 53. 1950 view of Music Hall. Source: University of Washington, Special Collections, Negative Number UW20986z_10.





Property of MSCUA, University of Washington Libraries. Photo Coll 700

Figure 54.1948 view of More Hall. Source: University of Washington CampusPhotographs, Negative Number NIS(II)128, image file SC000511.



Figure 55. 2016 view of Thomson Hall, built 1948. Photograph by Sonja Molchany. Source: WISAARD.





Figure 56. 2016 view of the Communications Building, built 1951. Photograph by Sonja Molchany. Source: WISAARD.



Figure 57. 2016 view of Husky Union Building (HUB), built 1949. Photograph by Sonja Molchany. Source: WISAARD.



Property of MSCUA, University of Washington Libraries. Photo Coll 700

Figure 58. Ca. 1957 view of the Chemistry Library, built 1957. University of Washington Libraries, Special Collections, Negative Number UW20997z.



Figure 59. Fairmount Park Elementary School No. 2, built 1963. Source: Pacific Coast Architect Database.



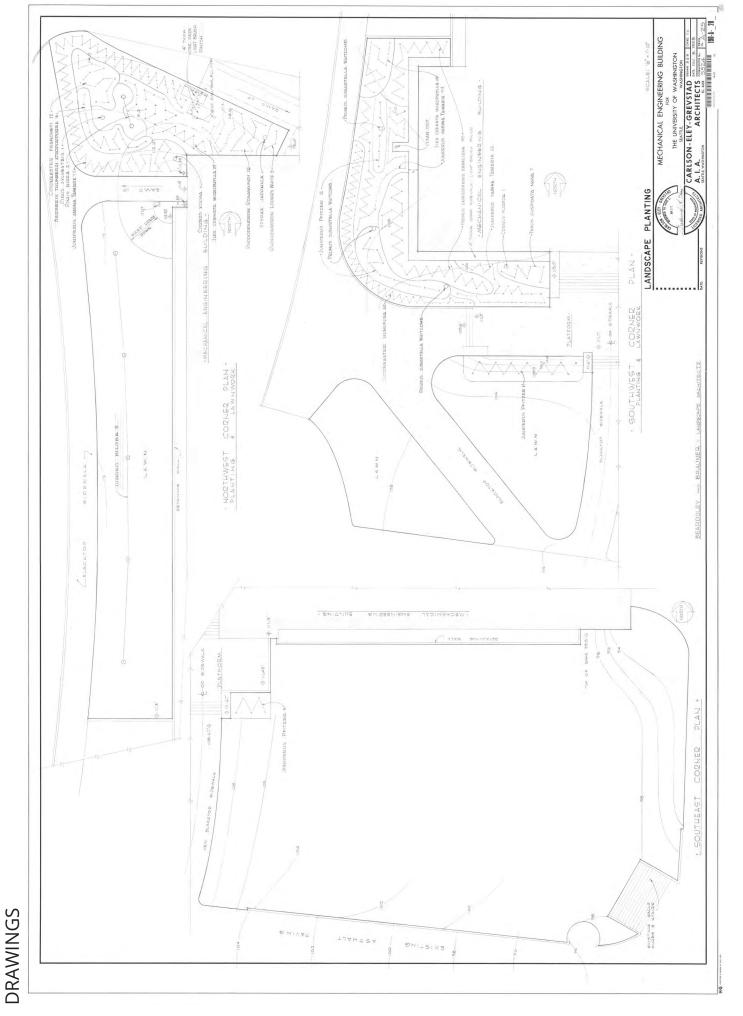


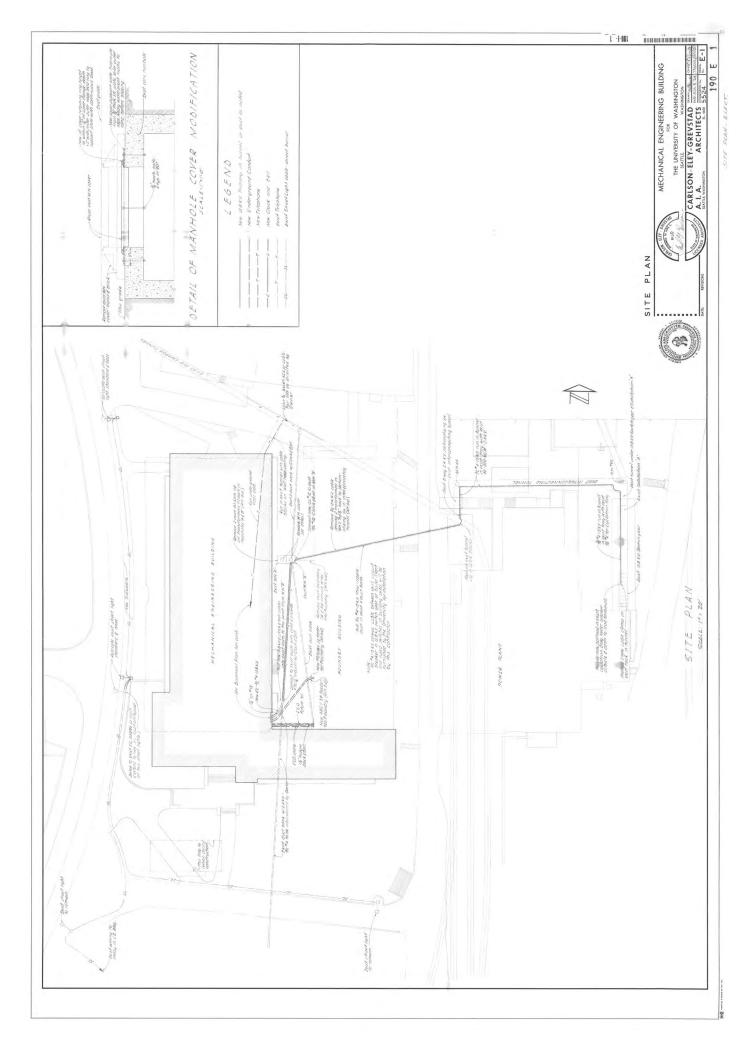
Figure 60. View of the Princess Theater in Prosser. Source: Roadarch.com.



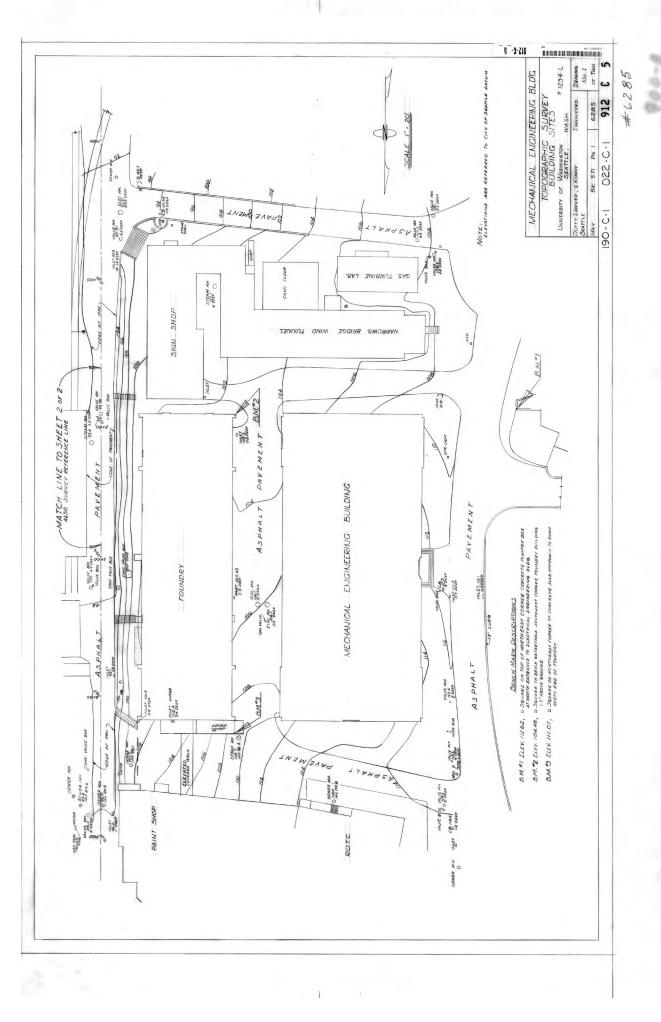
Figure 61. Columbia Electric building, 1959. Source: Seattle Times, courtesy of DocomomoWeWa.





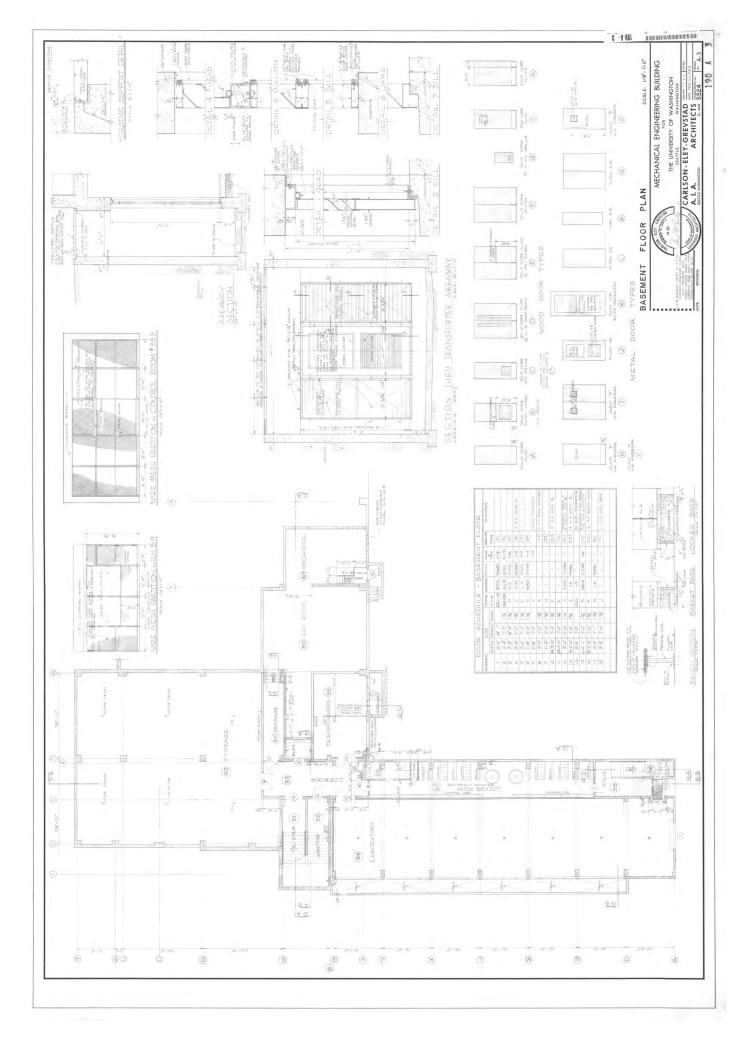


Site Plan, pre MEB Figure 64.



Pate

Figure 65. Basement



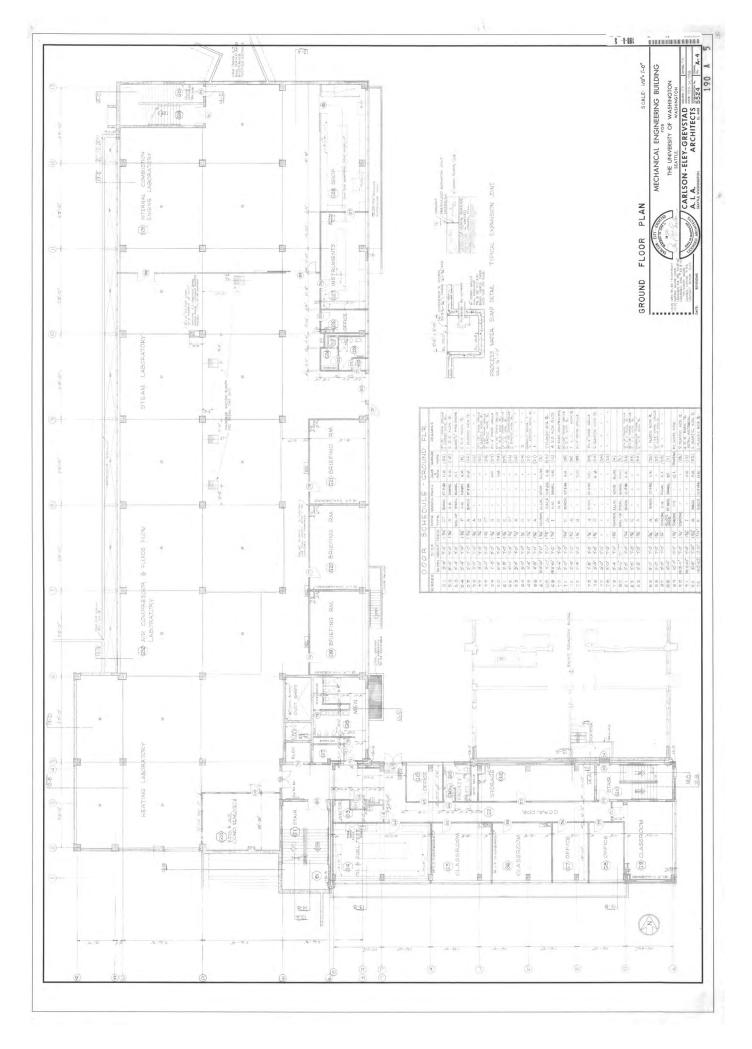
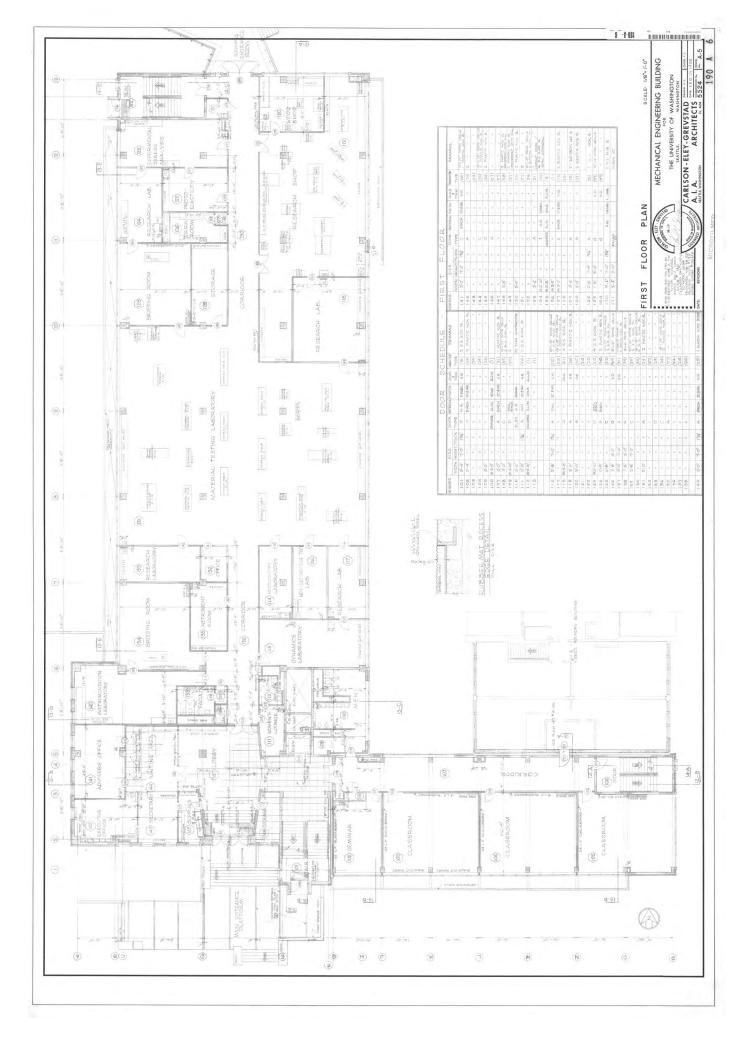
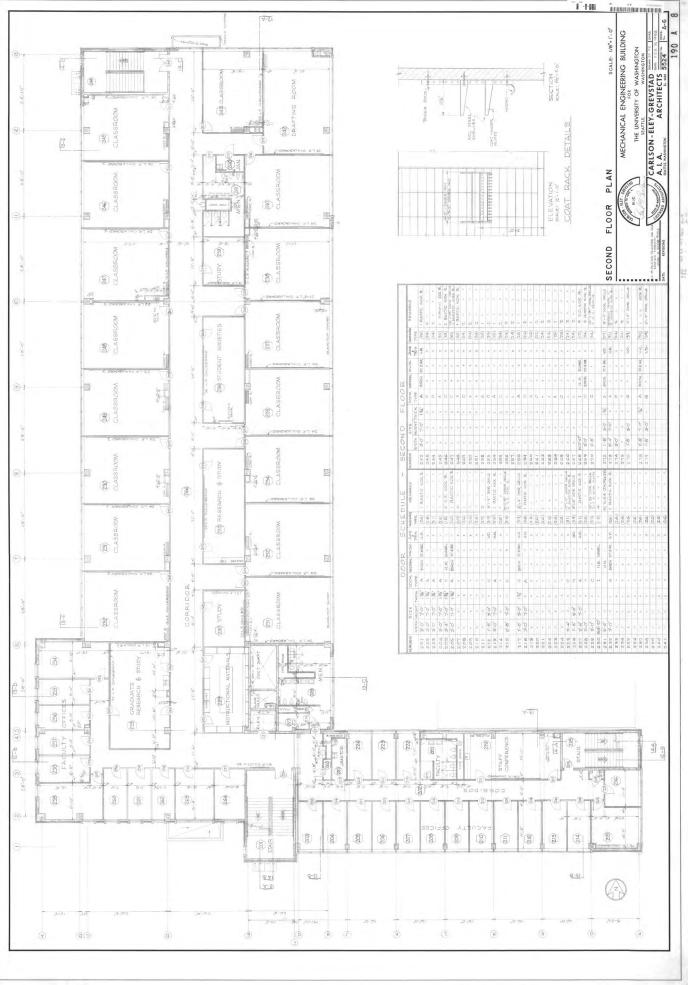


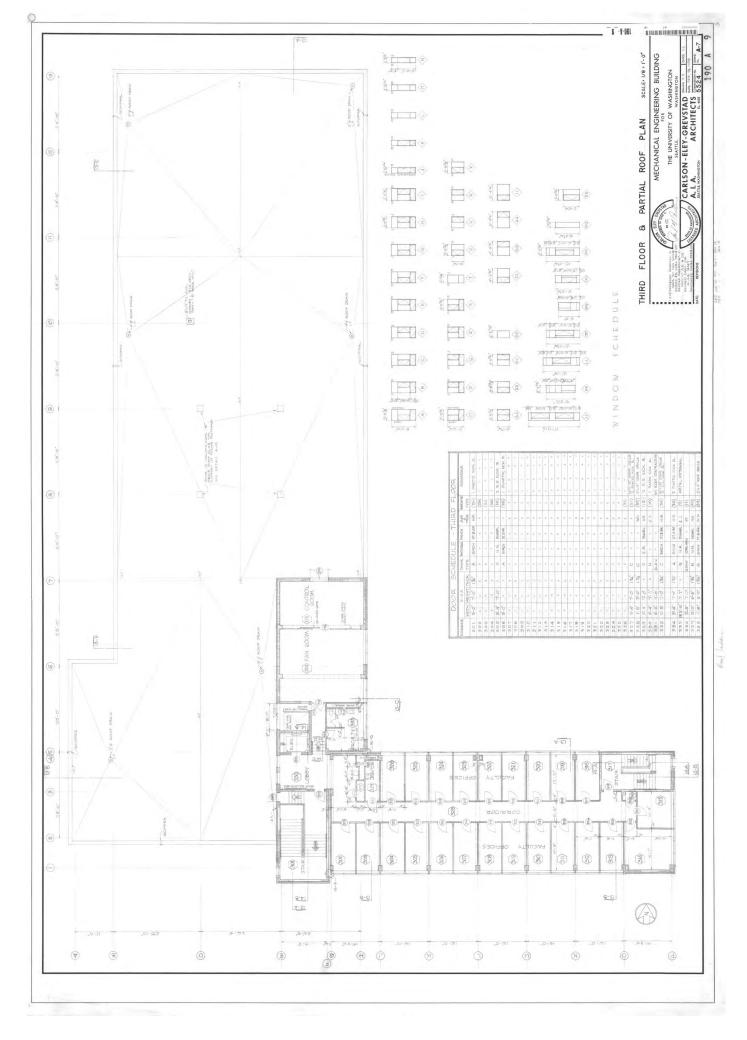
Figure 67. First Floor

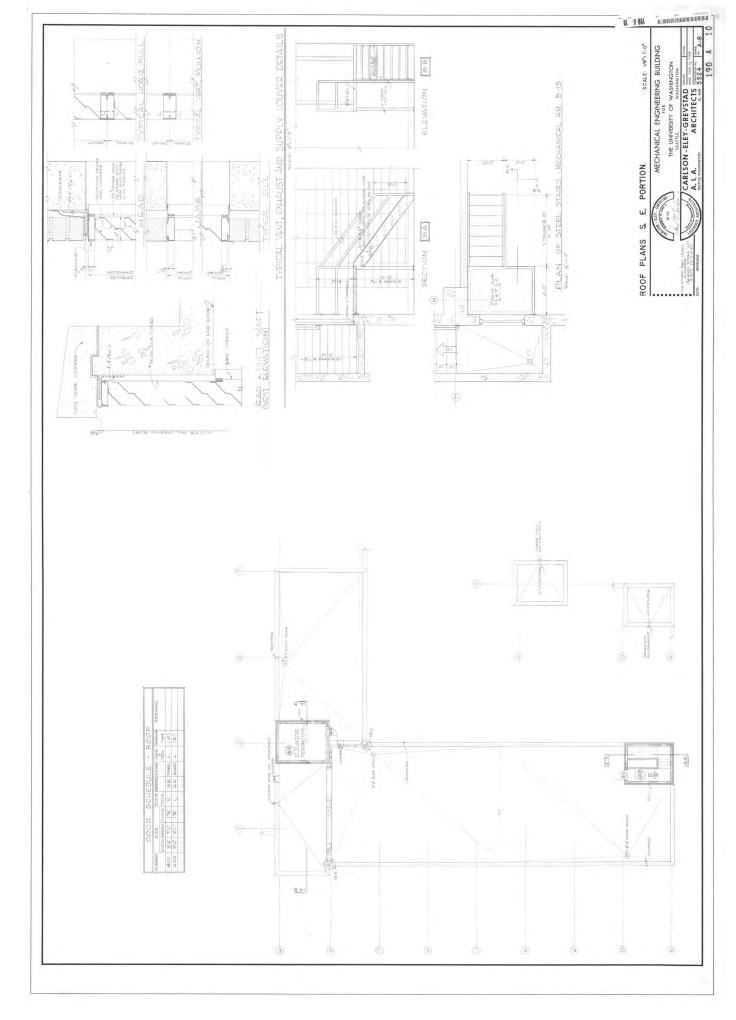


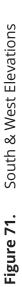


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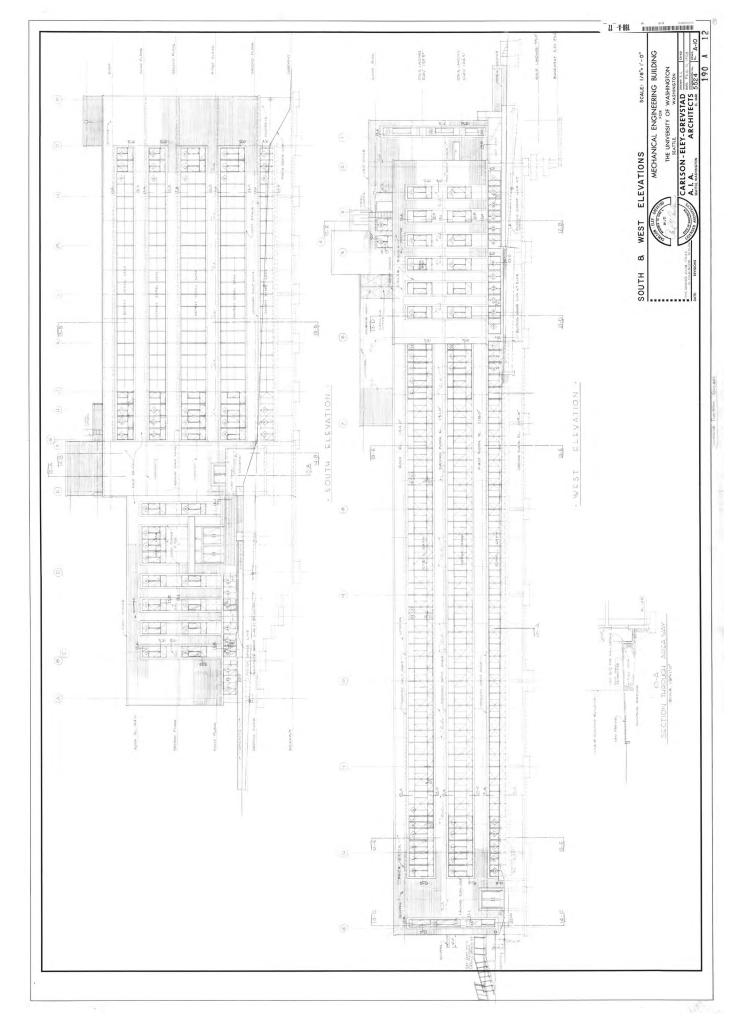
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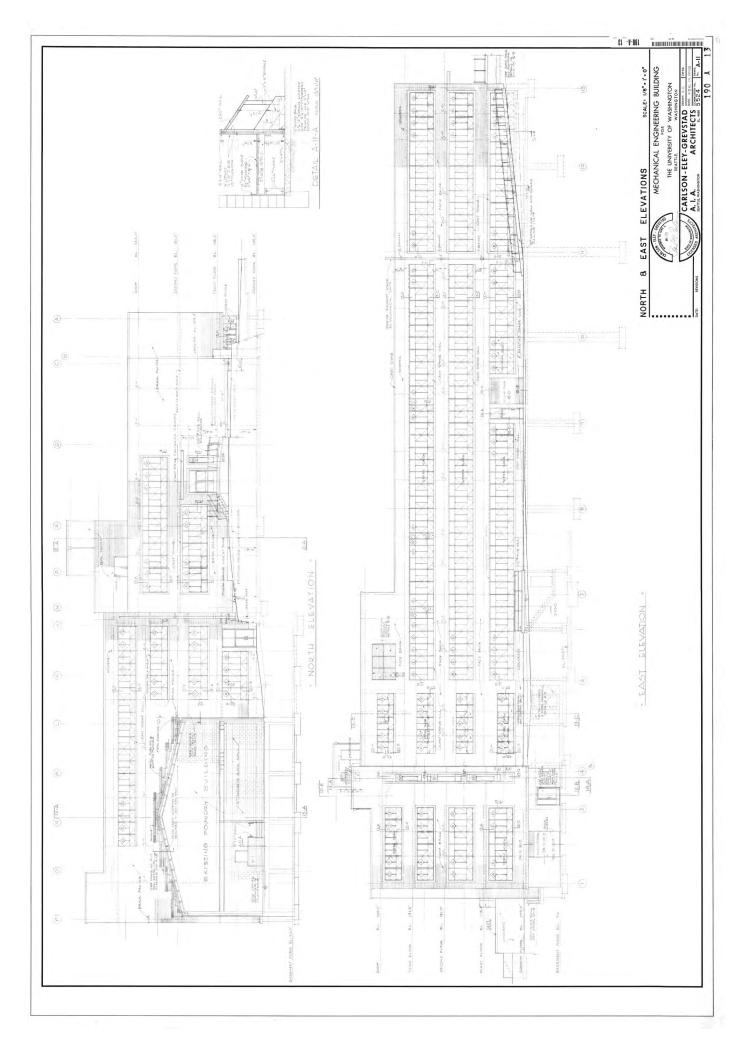


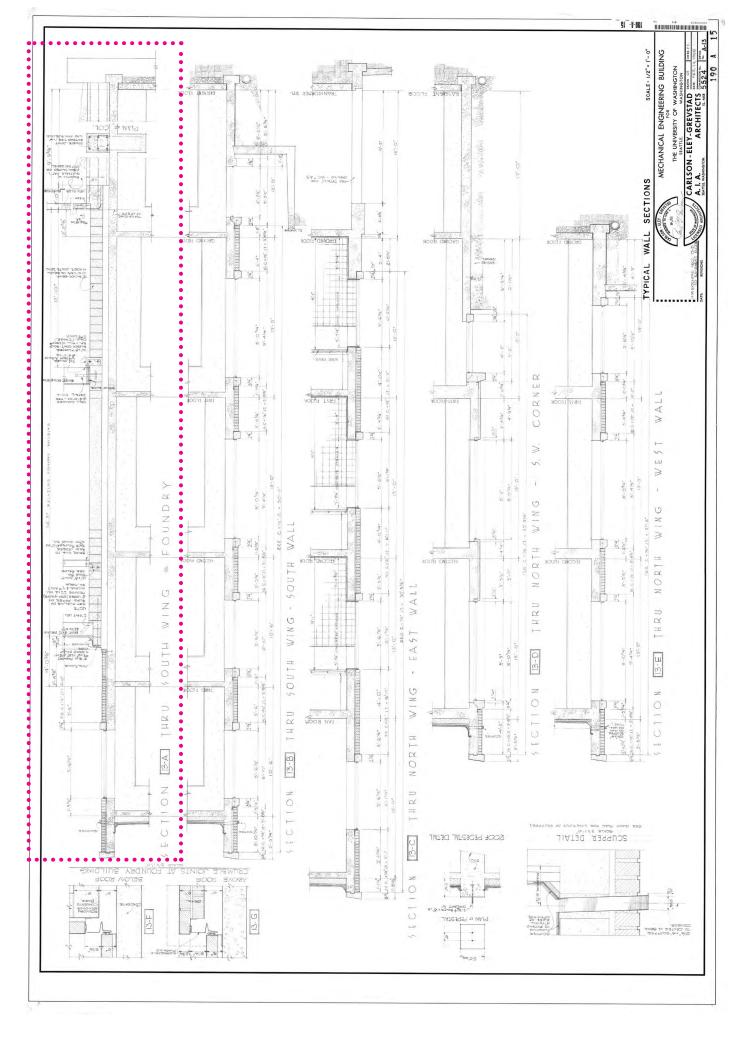


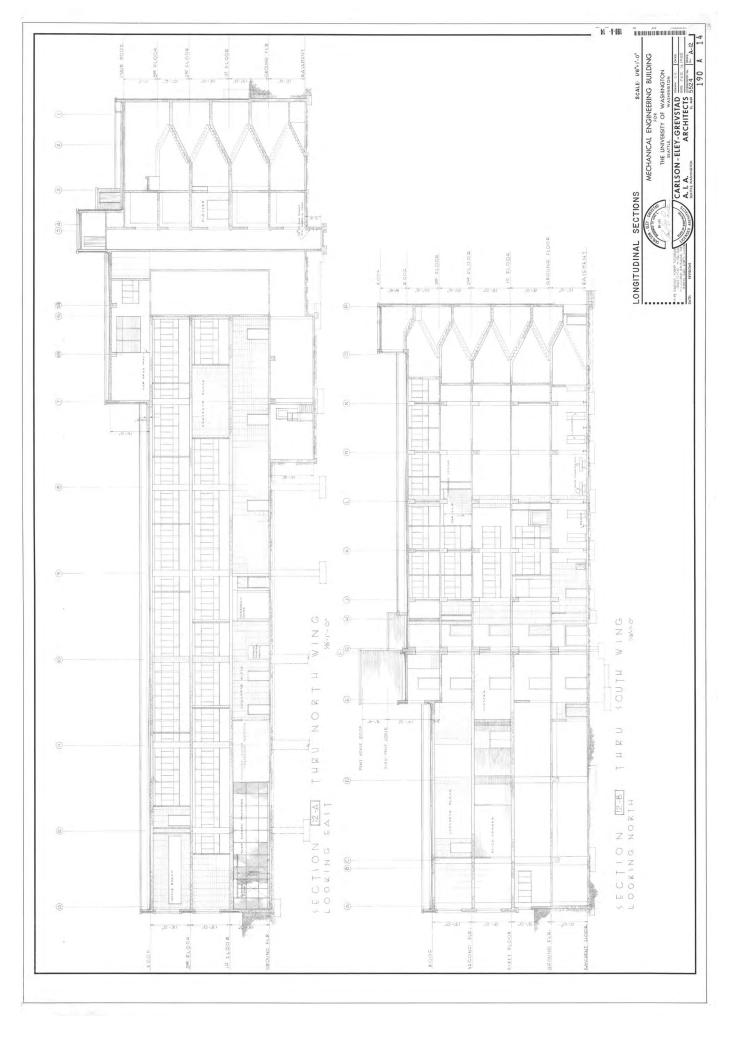


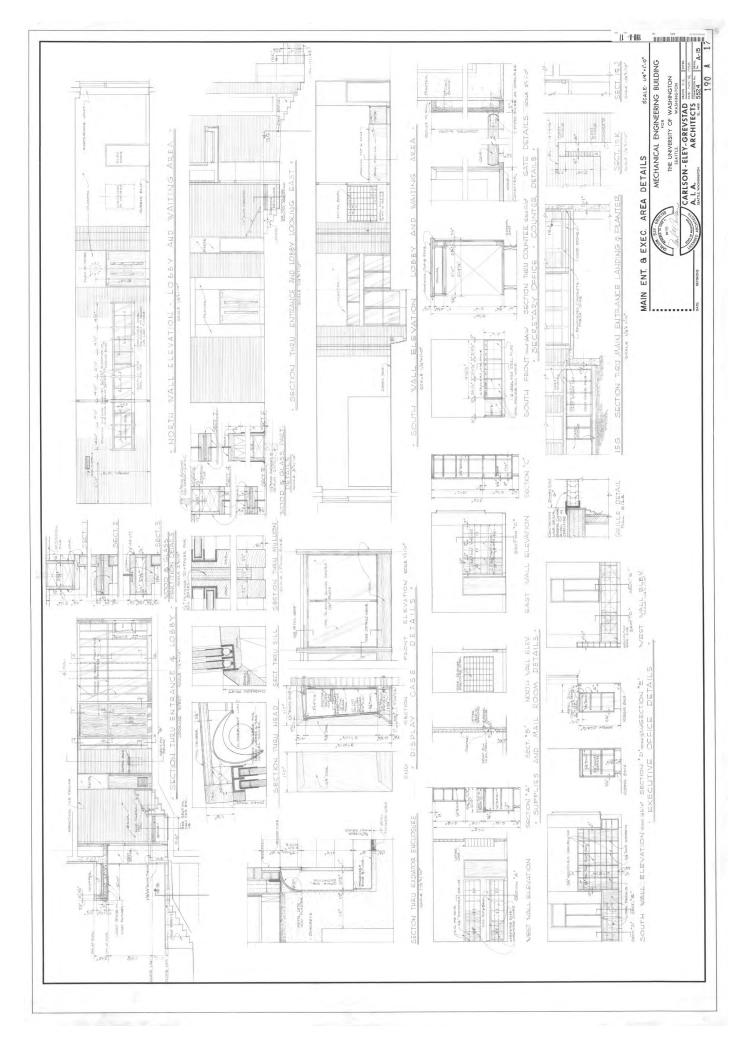




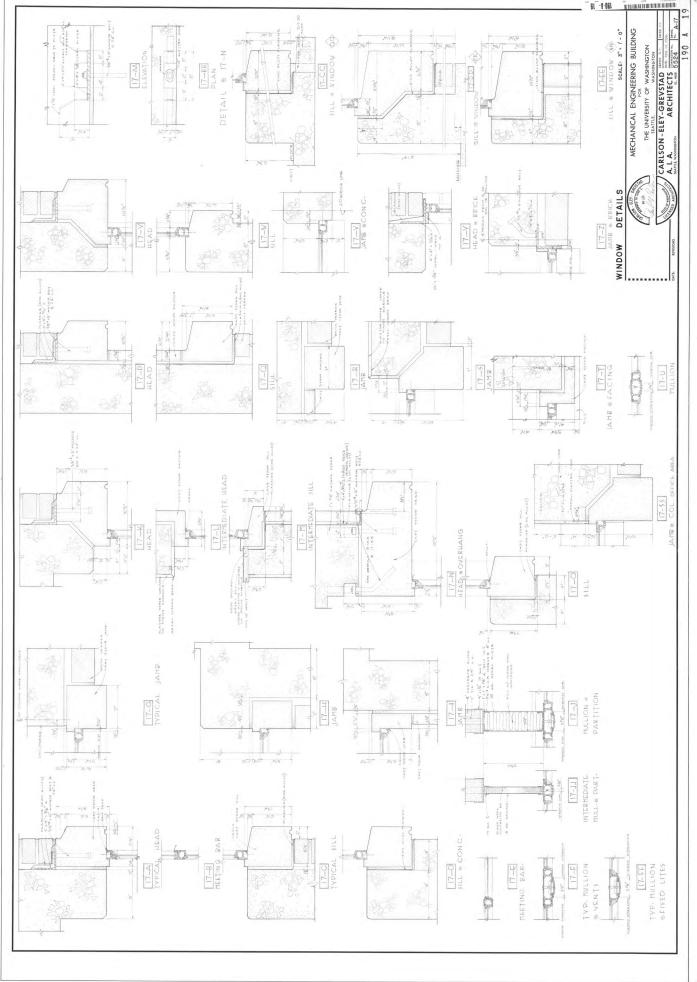






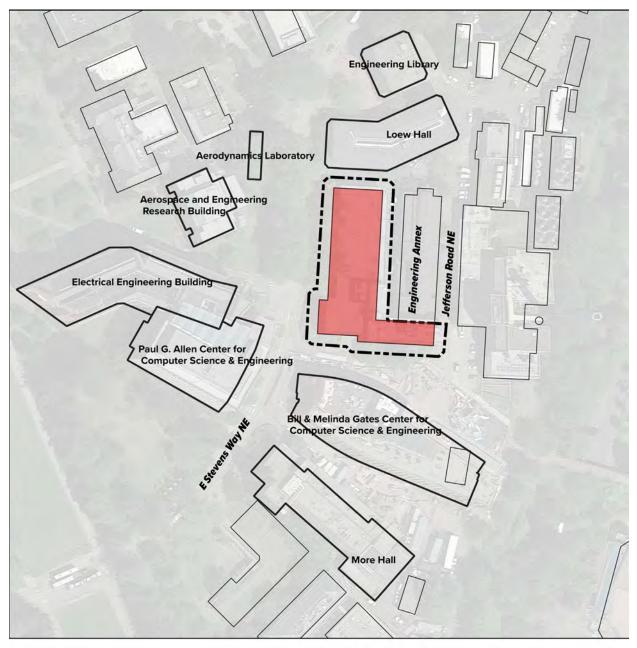






Mechanical Engineering Building

University of Washington



Area Map

Mechanical Engineering Building Boundary

--- Nominated property (20-foot offset from building)

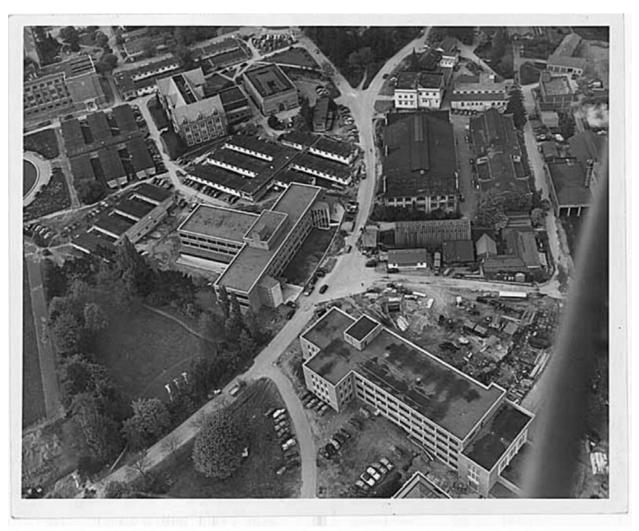
Mechanical Engineering Building

Nominated property

Existing University of Washington Buildings

Figure 77. Area map showing adjacent buildings.





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Figure 78. Aerial of eastern portion of campus taken from the south, University of Washington, ca. 1948. Photographed by James O. Sneddon. University of Washington Libraries, Special Collections, Negative Number UW2363.





Figure 79. Main entrance on the south facade of the southwest corner block.



Figure 80. View looking north along the west facade along E Stevens Way NE. Source: Google Street View.





University of Washington Libraries, Special Collections Division

Figure 81. 1909 view of Machinery Hall. University of Washington Libraries, Special Collections, Order Number AYP792.



Figure 82. Exterior view and grounds, Foundry Building, 1909. Photographed by Frank H. Nowell. University of Washington Libraries, Special Collections, Negative Number UW17235.





Figure 83. 1958 view of Physics Hall following the Carlson, Eley & Grevstad addition. University of Washington Libraries, Special Collections, Negative Number NIS(I)5074B.



Figure 84. 2019 view of the south corner of Bagley Hall showing the Carlson, Eley & Grevstad addition. The inset map shows the view area circled in red for reference. Source: Google Street View.

