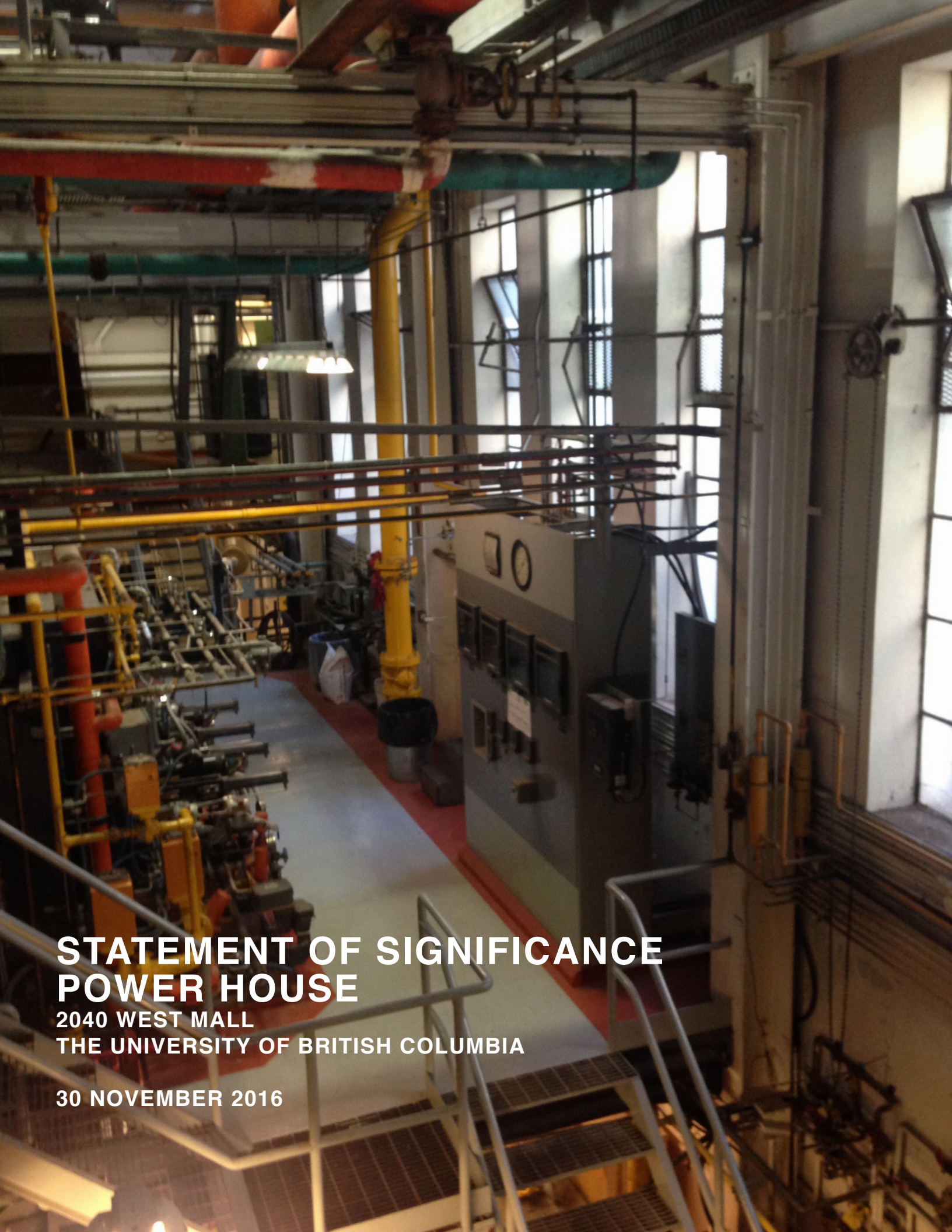


STATEMENT OF SIGNIFICANCE
POWER HOUSE

2040 WEST MALL
THE UNIVERSITY OF BRITISH COLUMBIA

30 NOVEMBER 2016

INTRODUCTION

The Power House comprises the original 1925 building plus three major additions – the 1947 addition at the south end of the original building, and two Modernist additions at the southwest corner, finished in 1961 and 1970. The original building houses Generators #1 to #3; the 1961 and 1970 additions accommodated Generators #4 and #5.

The building and its additions were designed to house the generators used to produce and distribute steam for the heating of campus buildings. Fuels changed over the lifespan of the facility, starting with coal, but moving to oil then gas. Older parts of the building have still-active pumping equipment as well as redundant generators; the southwest additions house two large generators that will soon be decommissioned, as the University moves from steam to a more sustainable district hot water energy system.

Housed with the original building at its north end is the University's potable water pumping station, for which there are no plans or budget for relocation.

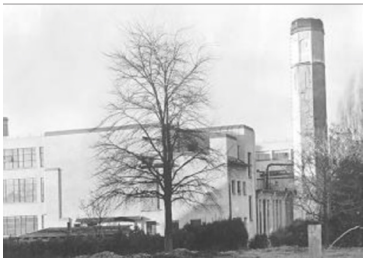
CHRONOLOGY

1925 views of Power House
Top: from the southeast (UBC 3.1/885)
Bottom: from the northwest (UBC 1.1/1559)

1925 Original building constructed as part of the initial campus building program; the building featured:

- Main hall with 2 coal-fired steam-generating boilers
- Coal delivery and storage facilities
- Ductwork and equipment to distribute steam to campus buildings
- Prominent faceted chimney

1947 Third generator (from decommissioned ship) installed



c.1950 view of Power House (UBC 3.1 /886)

1947 Addition off south end of building for additional machinery

1950s Boilers 1 and 3 converted from being coal-fired to oil-fired

Top: 1961 addition (UBC 104.1/57)
Bottom: 1970 addition (UBC 41.1/1615)

1961 Addition westward off south end of building to house one large new steam generator and associated piping and equipment

- Design associated with Barry Downs at Thompson Berwick & Pratt

1965 Boiler 2 converted from being coal-fired to natural gas-fired, and Boilers 1 - 3 converted from oil-fired to natural gas-fired

1970 Second addition extends 1961 addition, employing identical exterior detailing (relocation of west windows?), to house second large steam generator.

1973 Generator No.3 burns, and subsequently decommissioned

2015-17 Decommissioning of the steam generator plant

- Generators 1 and 2 decommissioned following commissioning of new district hot water generation system, ADES.
- Potable water pump system at north end of 1926 building continues to be an essential piece of infrastructure with no funding in place for its replacement

1925 main hall with west window wall showing

Interior of combined 1961 and 1970 additions

STATEMENT OF SIGNIFICANCE

Description

The Power House at 2040 West Mall comprises the original 1925 building with its prominent chimney, the compatible 1947 addition at the south end of the original building, and the identically-detailed 1961 and 1970 additions at its southwest corner that are distinguished from earlier building parts by virtue of their Modernist styling.

The Power House is surrounded by the Henry Angus Building, the Klinck Building, the Somerset and Binning Studios, and the Old Fire Hall on the block defined by Main and West Malls, Agricultural Road and University Boulevard at the heart of The University of British Columbia's Point Grey Campus.

Heritage Value

The Power House is valued for its campus location and physical setting, its compound exterior form and character, its voluminous interior spaces and their power generation/distribution equipment, its association with the architects, and its enduring campus presence that symbolizes UBC's independence as an institution – all values that contribute to the building being a unique record of the university's origins, expansion and evolving culture.

Steaming chimney stacks have made the Power House a prominent and

enduring campus presence since The University's first years at Point Grey. The original portion of the building is a part of the very earliest cluster of buildings on campus, along with the Science building (today part of the Chemistry building), the Library, and the nine "semi-permanent" buildings (Arts, Agriculture, Applied Science, Administration, the Auditorium, four laboratory/workshop buildings) and the Old Fire Hall. With these other inaugural structures, the Power House helps mark the physical scope of the earliest campus.

The Power House is a commanding physical presence in the interior of the block bounded by Main and West Malls, Agricultural Road and University Boulevard – an island of building in a field defined by buildings at the block's perimeter.

For displaying its function as a heat generation system for campus buildings, the Power House symbolized the historical independence and isolation of the UBC Point Grey campus – both defining characteristics of the campus and the institution from its inception, and seen as key to the institution's ideal intellectual life and culture.

The Power House is an excellent record in one building of the emerging Modernism of postwar campus architecture . The original building, designed in the Collegiate Gothic style, represents the striving for traditional respectability in the early years. Its 1961 and 1970 Modernist additions are part of the postwar aesthetic break from that earlier traditionalism; the glassy transparency of the Modernist additions, dramatically displaying their generator equipment and functions, reflects the dynamism and openness of the University following the war.

The Power House is a veritable museum of the steam generation: its generators, ducts, valves, and pumps and their associated instrumentation all display the evolving history of steam-driven district heating using coal, then fuel oil and finally natural gas. The equipment is valued for representing state-of-the-art technologies at various times in this history of fossil fuel-fired steam generation, and also valued for its use as an educational tool for mechanical engineering students during the facility's working life.

The Power House interior is a rarity for its pure visual impact. Navigating through the complex array of colour-coded mechanical equipment, ductwork, gauges and electronic equipment on open steel decking and staircases at varying levels within huge volumes of open interior space – all lit dramatically by expansive window walls – is to experience a succession of extraordinary, sometimes vertiginous, interior vistas.

The Power House is valued for its association with the Vancouver

architectural firm, Sharp & Thompson (later Thompson Berwick & Pratt). The firm designed the campus plan in 1913, all of the original campus buildings (excepting the Old Fire Hall, designed by the Public Works Department) and most of the buildings on campus up until the 1970s. The building is also important for having its 1961 and 1970 Modernist additions designed by the locally prominent architect, Barry Downs, while he was practicing at TB&P.

Character-defining Elements

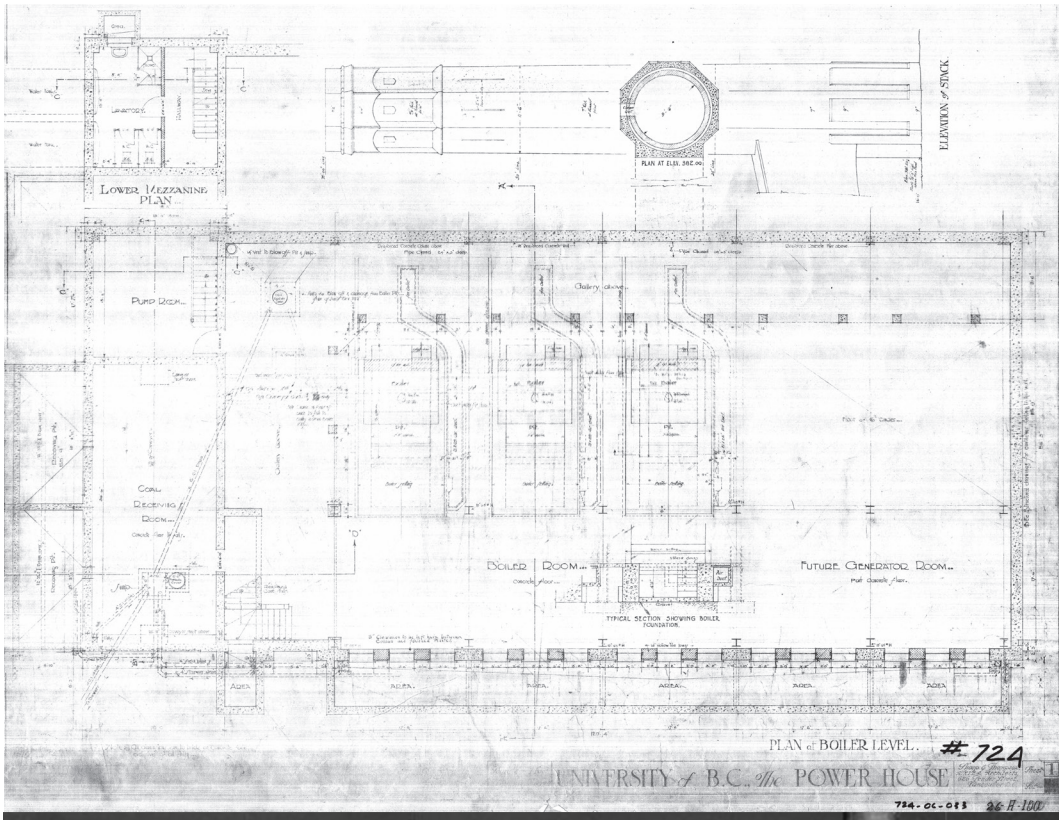
- Proximity to other founding buildings of the campus, most visibly the Old Fire Hall to its immediate west
- Setting in a space bounded by a cluster of buildings on the perimeter of the campus block
- Original 1925 building
  - Large open volume of the main hall
  - Large steel windows and clerestory windows
  - Rooms and fittings that display the delivery and handling of coal as the original fuel of the generators
  - Steel frame structure, concrete and masonry exterior walls
  - Window, door and exterior detailing in Collegiate Gothic style
  - Eight-sided chimney with subtle traditional detailing in relief
  - Exterior detailing framing main doorways
  - Remnants of canopy over coal chutes (north facade)
  - Floor plates that do not extend to the exterior walls
  - Restrained exterior ornamentation: chequered terracotta tiling
- 1947 Addition
  - Restrained exterior detailing compatible with original 1925 building
- 1961 and 1970 Additions
  - Modernist exterior detailing, including the display of mechanical systems inside and out
  - High open volume of space
  - Large expanses of clear glazing facing west, allowing visual connection to generator equipment, ductwork, and vent stacks and activity inside
  - Ancillary horizontal and vertical strips of fenestration
  - Coffered concrete ceiling/roof structure
  - Floor plates that do not extend to the exterior walls
- General building elements
  - Decking, staircases, and gangways suspended in high spaces
  - Steam generation equipment, including Generator #3 re-purposed from a marine vessel
  - Fuel supply infrastructure
  - Ductwork, pumps, valves, instrumentation
  - Colour-coded of equipment and infrastructure

Intangible Character-defining Elements

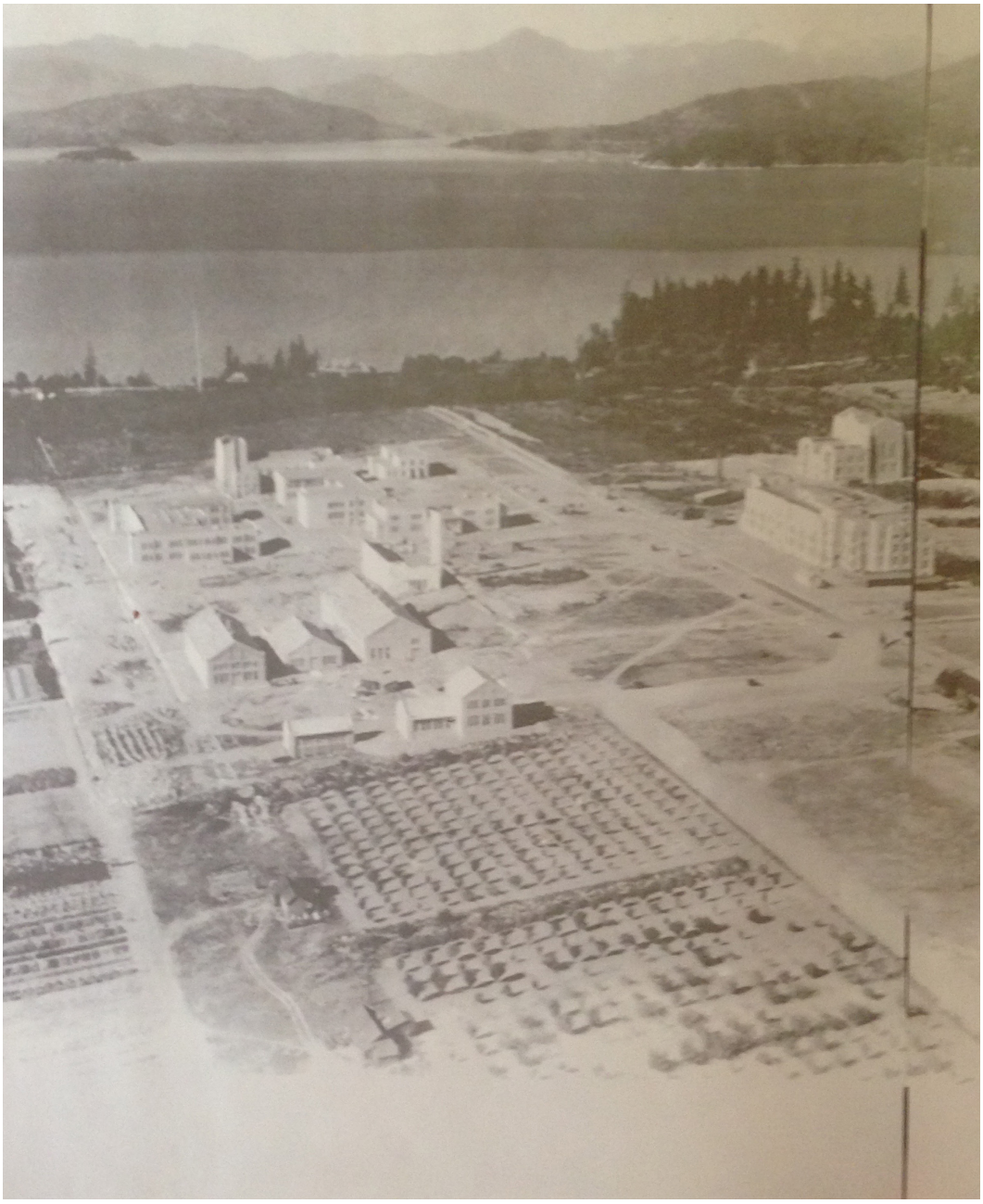
- History of mechanical engineering learning
- HIstory of power generation using coal, oil and natural gas

Top: *Generator #3*
Middle: *Pressure graph*
Bottom: *1970 addition west window*

Archival images from UBC Archives of Power House construction (completed 1925)
Top: *(UBC 1.1/1785)*
Middle: *(UBC 1.1/1787)*
Bottom: *(UBC 1.1/1782)*



Top: *Sharp & Thompson drawing of the 1925 building*
Bottom: *(UBC 104.1/54)*



The first campus buildings, 1925, including the Power House (photo on wall in Old Fire Hall)


#4 BLR
#5 BLR