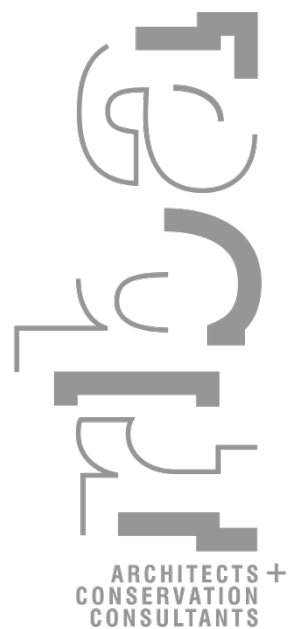


HERITAGE IMPACT STATEMENT
WILSON HALL
156-292 GRATTAN STREET, PARKVILLE
HVAC UPGRADE AUGUST 2024



ACKNOWLEDGEMENT OF COUNTRY

We acknowledge Traditional Owners and their Elders past, present and emerging, as the original custodians of the land and waters we work across and recognise that sovereignty has never been ceded. We support the Uluru Statement from the Heart to achieve justice, recognition, and respect for all First Nation people.

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Contemporary and historical sources utilised in the preparation of this Heritage Impact Statement are acknowledged and referenced in footnotes and/or figure captions.

REPORT REGISTER

The following report register documents the development and issue of the Heritage Impact Statement for Wilson Hall HVAC Upgrade as prepared by RBA Architects + Conservation Consultants in line with its quality management system.

PROJECT NO.	VERSION	ISSUED TO	DATE ISSUED
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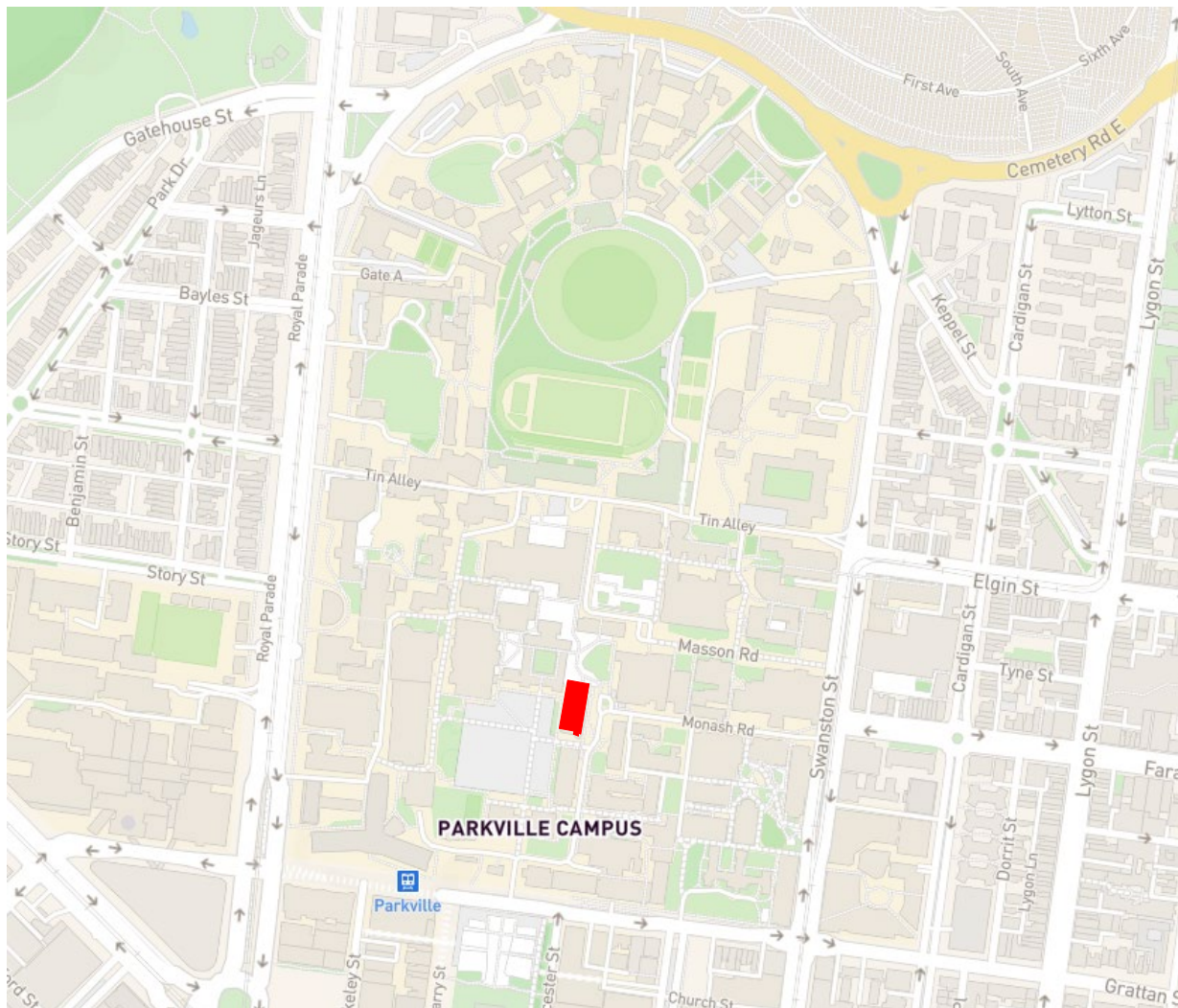
1.1 PURPOSE

This Heritage Impact Statement [HIS] has been prepared by RBA Architects + Conservation Consultants for the University of Melbourne in relation to Wilson Hall, Building 151 at the University's Parkville Campus. The building is acknowledged as having state level significance through its inclusion on the Victorian Heritage Register (VHR H1012). It accompanies a permit application for proposed heating, ventilation and air conditioning [HVAC] works to the Main Hall of the building.

This report outlines the proposed work and provides an assessment of its potential impact on the identified heritage significance of the subject place.

1.2 LOCATION

Wilson Hall is located at the University of Melbourne Parkville Campus, 156-292 Grattan Street, Parkville, Melbourne.



Map of Parkville Campus, the subject site (red)
(Source: <https://maps.unimelb.edu.au/parkville>)



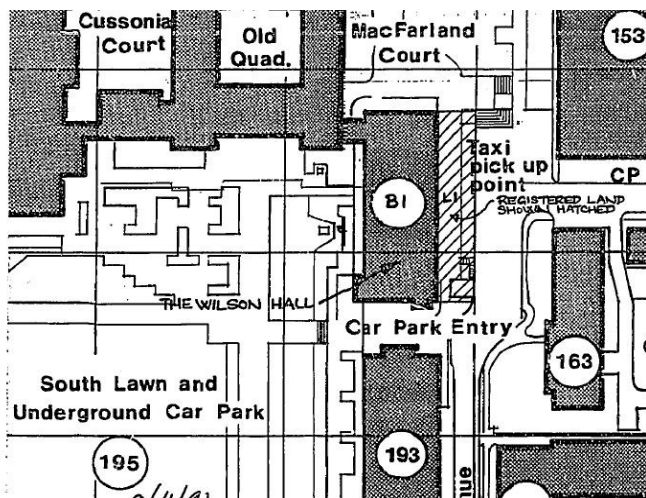
Aerial photograph of University of Melbourne, Parkville Campus showing Wilson Hall (Source: Nearmap as at 17 March 2024)

Wilson Hall is situated centrally within the campus, its west elevation fronting on to Cenotaph Lawn at the northeast of South Lawn, while the east elevation overlooks Wilson Avenue. The main entrance to the building is at MacFarland Court to the north, where it abuts the Old Quadrangle Building to the west.

1.3 HERITAGE STATUS

1.3.1 VICTORIAN HERITAGE REGISTER

Wilson Hall is included in the Victorian Heritage Register [VHR] as H1012. The extent of registration captures the whole footprint of the building, as well as the paved terrace to the east of the building as indicated in the following Extent of Registration Diagram.



Extent of Registration (Source: VHD)

The extent of registration includes:

- 1. The whole of the building known as The Wilson Hall marked B1 on Plan 6055327 (A), endorsed by the Chairperson, Historic Buildings Council and held by the Director, Historic Buildings Council.
- 2. All of the land extending east to the west kerb of Wilson Avenue shown hatched and marked L-1 on Plan 6055327 (A), being part of the land described in Certificate of Title Volume 8876 Folio 379 endorsed by the Chairperson, Historic Buildings Council and held by the Director, Historic Buildings Council.

The Victorian Heritage Database [VHD] provides the following Statement of Significance for Wilson Hall.

What is significant?

Wilson Hall is the ceremonial hall of the University of Melbourne and was designed by architects Bates, Smart and McCutcheon and officially opened on 22 March, 1956. The original Wilson Hall, designed in a Gothic Revival style by architects Reed and Barnes in 1879, was destroyed by fire in 1952. The new building, constructed on the bluestone foundation walls of the original Wilson Hall and incorporating stone rosettes from the old hall in the textured brickwork of the south wall, has a strong historical association with prominent pastoralist and politician Sir Samuel Wilson, whose gift of £30,000 in 1874 made possible the original Wilson Hall. The hall, approximately 52m long and 19m wide, functions as a venue for concerts, addresses and examinations. Wilson Hall was the first in a series of progressive architectural designs that transformed the character of the University of Melbourne campus in the 1950s. With the Beaurepaire Centre, the Baillieu Library, and the Russell Grimwade School of Biochemistry, Wilson Hall forms part of a large post-war group of campus buildings. Wilson Hall is a simple concrete frame rectangular box with brick infill and an east wall almost entirely of heat absorbing glass. The glass wall with steel frames is 36m long and 14.5m high. Sculptural reliefs include the mural on the internal wall above the dais designed by Douglas Annand and executed by Tom Bass and Alan Ingham called "A Search for Truth". The four stone sculptures mounted externally on the west wall are by Tom Bass. The copper clad pod on the south wall contains an organ designed by George Fincham in 1890. The etched and stained glass mural in the foyer is by Douglas Annand, the ceremonial chairs and lectern were designed by Grant Featherstone; a substantial bronze relief by Tom Bass is mounted externally on the north wall above the main entry and depicts "The Trial of Socrates".

How is it significant?

Wilson Hall is of architectural, aesthetic and historical significance to the State of Victoria.

Why is it significant?

Wilson Hall is architecturally significant as an early and distinctive example of the post-war International Style. It was the first major public building in Victoria to combine ornament, artwork and detail within the strict visual tenet of the monumental form of the International Style. Wilson Hall was indicative of the development of aesthetics and architectural design with its monumental proportions, simple cuboid form, use of curtain wall glazing, lavish materials including the Swedish birch panelling and the black Italian marble and the extensive artwork both inside and outside the buildings. Wilson hall is a distinguished work of architects Bates Smart and McCutcheon, the practice that was derived from Reed and Barnes, architects for the original Wilson Hall. The monumental scale of the Wilson hall demonstrates the importance of a great hall in the ceremonial customs and ritual of a university.

Wilson Hall is aesthetically significant for the murals and sculptures of Tom Bass and Douglas Annand. The murals are integral elements of the building, and expressive of the meaning and purpose of a great hall and of a university, and demonstrate a notable application of decorative schemes.

Wilson Hall is historically significant the first major institutional building of note in Victoria after 1945. Built on the same site as the former Wilson Hall, the new hall was designed to fulfil the same central ceremonial role as its predecessor.

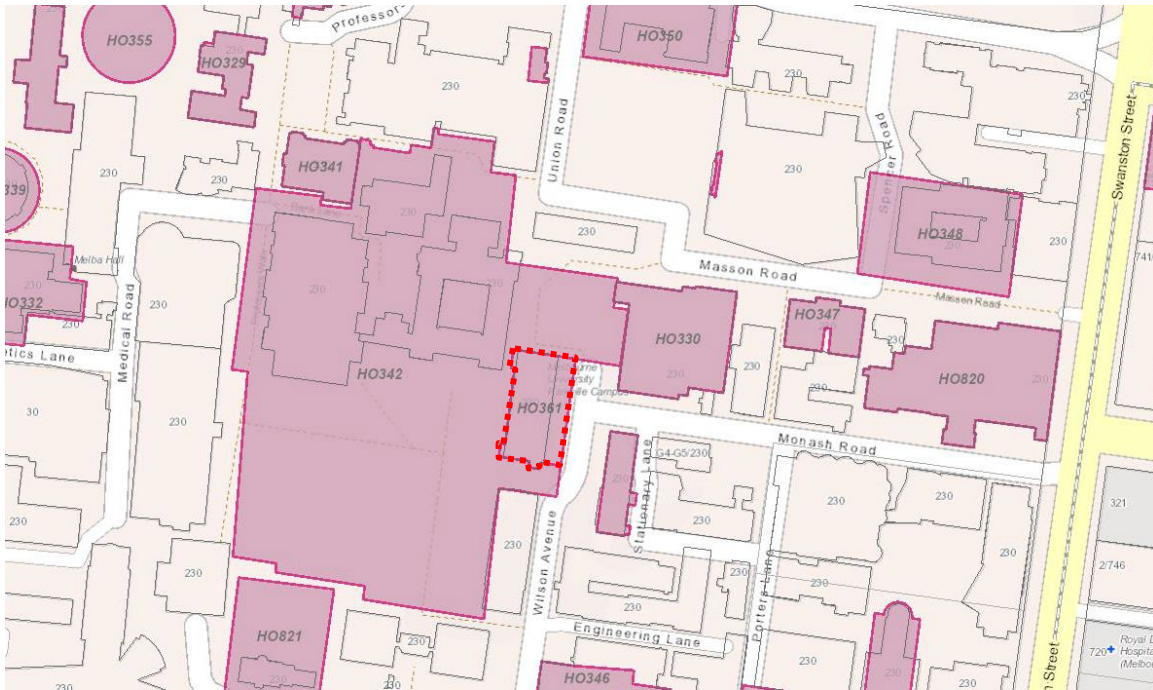
Wilson Hall is historically significant for the Fincham organ, an important and integral element of the hall. The organ was originally built in 1890 for the Australian church in Flinders Street and was re-erected at the Wilson hall in 1956 under the supervision of Sir Bernard Heinze. It has a strong historical association with the outstanding organ builder, George Fincham.

There are no specific permit exemptions noted for the place.

1.3.2 MELBOURNE PLANNING SCHEME

Wilson Hall is individually listed as HO361 in the Schedule to the Heritage Overlay of the Melbourne Planning Scheme. The extent of registration coincides with that of the VHR.

In the Schedule to the Heritage Overlay for the subject site there are no specific controls on the building as it is included on the VHR.



Melbourne Planning Scheme Heritage Overlay diagram with subject site HO361 indicated (dashed red)
(Source:VicPlan)

1.3.3 OTHER LISTINGS

Wilson Hall is classified as a place of state significance by the National Trust of Australia (Victoria), listed as Property No B6478. There are no statutory requirements associated with this classification.

Wilson Hall is not registered on the Australian Heritage Council's Register of the National Estate.

1.3.4 HERITAGE STUDIES

A Conservation Management Plan [CMP], commissioned by Property and Campus Services at the University of Melbourne and prepared by Lovell Chen Architects and Heritage Consultants in 2011 is referenced in this report. The DRAFT status of the document is noted. It has not been endorsed by the University or by Heritage Victoria.

2.1 SUMMARY HISTORY

This summary history derives from the history chapter in the 'Wilson Hall Conservation Management Plan- DRAFT'¹ prepared by Lovell Chen Architects and Heritage Consultants 2011.

YEAR	EVENT
1853	The University of Melbourne was incorporated by an Act of Parliament.
1857	East, west and north wings of Tudor Gothic Quadrangle built.
1860's	Construction of Gate Lodge, National Museum and the Medical School – all designed by Joseph Reed (from 1862 the practice of Reed & Barnes), appointed as architect to the University in 1858.
1874-1875	Extension built to Quadrangle north wing accommodating the library and 'Students Hall'.
1874-1882	<p>A bequest of £30,000 by pastoralist Samuel Wilson enabled the realisation of an examination and ceremonial hall to accommodate the University's increasing operational requirements.</p> <p>Joseph Reid was appointed as architect in 1875. The site to the south east of the Quadrangle building was selected and the design for Wilson Hall, referencing the Quadrangle in the Tudor Perpendicular Style, was approved by the University Council in 1878.</p> <p>Construction commenced in 1879 and exams were first held there in 1882.</p>
1952-1953	<p>Wilson Hall was extensively damaged in a fire.</p> <p>There was considerable support for the reconstruction of the hall to its original design in its original location and architects Bates, Smart & McCutcheon [BSM] -successor practice to Reed& Barnes- were engaged.</p> <p>The cost of reconstruction proved to be unviable, at more than double that of a contemporary building. Coupled with this, the reconstructed hall would not have the necessary seating capacity to meet the University's needs. Consequently, the University Council opted for a contemporary design, for which BSM were engaged in 1953. BSM partner and project architect, Osborn McCutcheon visited Denmark and Sweden that year</p>
1954-1956	Construction commenced on 'New' Wilson Hall in late 1954. The contractor was GA Winwood Pty Ltd. The building was formally opened in March 1956.
1960	MacFarland Court established to the north
1970-1974	Electrical, Electronic & Engineering Building constructed to the south and South Lawn redeveloped (1970-74) to incorporate an underground carpark.
~2001/02	<p>Double doors introduced in various locations, replacing existing window openings and doors, to suit egress and DDA access requirements.</p> <p>Central doorway from Foyer widened to suit seating layout with central aisle.</p>
>2011	<p>Brick toilet built to the north end of the covered way to the west of the building.</p> <p>Mechanical plant installed next to the toilet block, with associated flexible ducting fixed to the underside of the roof to the covered way and fabric ductwork installed internally.</p>
2011-2019	<p>Roof sheeting replaced. Solar panels installed at roof level (2017).</p> <p>Stairs to east end of dais fixed in place. Balustrade and handrail installed to one side, chair lift to other.</p> <p>A number of water damaged timber panels lining the Main Hall were replaced.</p>

¹ Lovell Chen, *Wilson Hall Conservation Management Plan (DRAFT)*, 2011, pp 9-24.

2.2 BUILDING DESCRIPTION

The descriptions in this section are drawn from Physical Analysis chapter of the 2011 CMP². Interior descriptions are of the areas (Basement and Main Hall) which relate to the proposed mechanical installation.

2.2.1 BUILDING EXTERIOR

As built the north elevation comprised textured cream brickwork with a bronze bas-relief sculpture depicting the 'Trial of Socrates' by Tom Bass over the entrance, located off-centre to the east. The entrance was framed within a projecting aluminium canopy.

The east elevation comprised a seven-bay glass curtain wall, with sheer brickwork at each end enclosing the dais (south) and foyer (north). Three entrances (paired double doors) were located at the base of the second, fourth and sixth bays from the north. A metal track for window cleaning was located under the copper-clad eave.

The south elevation comprised textured cream brick interspersed with stone rosettes from 'old' Wilson Hall. An almost full-height copper housing for the organ projected to the east of the south elevation. At ground level, the bluestone footings of the original Wilson Hall were cement rendered and finished with red clay tiles, with a row of aluminium-framed windows above, providing the only means of natural light to the basement. The west elevation, facing the South Lawn, comprised cream brick panels between the concrete rendered steel structural columns above a covered way. Aluminium-framed windows were located to the covered way. The south bay was clad with a glass curtain wall fitted with louvres. Four pressed cement Tom Bass were located above the canopy of the covered way. These depict 'Observation,' 'Contemplation,' 'Teaching and Learning' and 'The Talents of Knowledge'. It is possible that the function of the covered way was to provide a dedicated route for dignitaries, professors etc, from the robing room in the Old Quad to the dais.

The two elevations of the two-storey link element between the foyer and the east wing of the Old Quad were also different, being predominantly brick clad to the south, and fully glazed to the north. At the upper level of the south side of the infill was a reinforced concrete ramp sloping up to the Old Quad. This ramp was accessed by a fire door at the top of the main stairs.

The overhanging eaves were originally clad in copper. The roof itself comprised lightweight precast concrete panels carried on steel purlins.

The exterior of the building is largely unchanged since construction.

The covered way is the most modified area of the exterior. Alterations include the introduction of a brick disabled WC at the north end, next to which is a large freestanding mechanical plant with associated ductwork. These works mean that the covered way no longer functions as an external passageway linking the stair hall to the dais. Three of the windows to the covered way have been adapted to doorways, with double doors in aluminium frames.



North elevation to MacFarland Court



East elevation to Wilson Avenue

² Lovell Chen, *Wilson Hall Conservation Management Plan (DRAFT)*, 2011, pp 33-41



South elevation



West elevation to South Lawn

2.2.2 BUILDING INTERIOR

Basement

The basement level has been significantly modified, notably through the extension of the store to the south wall of the former cloak room. The former cloak room has been adapted to a warren of small spaces, including two offices, a store, a robing room and staff kitchen. Female toilets are located along the north wall, and an extended gents' WC is located to the west of the basement level, next to the stairs to the foyer. Intact elements and areas in the basement include the organ and organ chamber, the lift shaft and car and the two WCs to the south-west staircase.

Main Hall

The main hall...is predominantly intact as built and remains a naturally lit full-height volume with a dais at its southern end and a first floor gallery located above the foyer. The ceiling and west wall are finished in approximately 1,300sqm of fire-treated Swedish birch panelling fixed to battens with an airspace and acoustic panelling behind. At the intersection of the ceiling with the west wall the panels are curved, as opposed to being flush with the wall, creating the impression of the timber as a single continuous sheet. Some boards are perforated acoustic panels, others solid. The north wall of the main hall, above the gallery, is timber battens fixed to perforated plywood panels. This north wall also curves as it rises to the ceiling.

The east wall is an expanse of glass curtain walling in front of which stand seven steel columns enclosed in concrete and finished with black marble. Natural lighting is also provided along the west elevation, with full-height translucent glazing in aluminium framing parallel with the dais, and a row of windows and glazed doors overlooking the covered way (these were originally all windows).

The south wall, above the dais, is dominated by 'The Search for Truth,' the large mural carved in the thick perforated plaster boards by Tom Bass and painted by Douglas Annand....The pipe organ screen, comprising three tiers of vertical pipes and ten bronze trumpet-like projections, is located to the east of the south wall. The organ screen was designed by BSM. Small square openings (vents) in the plaster panels are located below the organ screen and stretch towards 'The Search for Truth'. The vents are finished with metal grilles. The plaster panels are painted a teal colour, which appears to be original.

3.1 BACKGROUND

The University is seeking to address ongoing issues of overheating in the Main Hall to improve the thermal comfort of its occupants and its suitability for use as an examination hall and place of assembly.

The primary cause of over-heating is solar heat gain through the single glazed, aluminium framed, full height curtain wall to the eastern façade.

The eastern façade, with its heat absorbing glass, was constructed early in the evolution of glazed curtain walling in Australia, a 'short-lived phase of Australian curtain walls [which] was brought to an end by a sequence of problems in weatherproofing, durability of seals, glass integrity and an inadequate climatic response'³.

The original design for the building did not include air-conditioning, relying instead on heat-absorbing glass to control heat gain. While innovative for the time, 1950's heat absorbing glass only delays the internal solar heat gain as the absorbed heat eventually radiates into the building interior.

Full height, heavy woollen curtains installed⁴ to the eastern glazing to reduce the solar heat gain, are of limited effect – once again only delaying, rather than preventing, the transfer of heat into the space.



◀
New Wilson Hall, east facade
Photograph by Peter Wille, 1955
(Source: State Library Victoria)

³ Giorgio Marfella "From Heat Absorption to Speculation: The Troubled Evolution of International All-Glass Architecture in Melbourne (1955-1985)." In *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 33, Gold*, edited by AnnMarie Brennan and Philip Goad, 404-417. Melbourne: SAHANZ, 2016.

⁴ Lovell Chen, *Wilson Hall Conservation Management Plan (DRAFT)*, 2011, p41.

The current HVAC system which was installed circa 2011, comprises an external built-up air handling unit (AHU) located to the northern end of the covered way to the west of the hall. It is served by a chilled pipework connection from a centralised chiller plant located in L6 of Electrical Engineering Building (Building 193).

The HVAC is used primarily for ventilation and cooling, the AHU heating coil being used only to temper the air supply. The original in-slab hydronic heating system is still used for heating the hall.



Top: View through Cenotaph Lawn from South Lawn to west elevation of Wilson Hall.
Bottom Covered way (L-R): Screened AHU; External flexible duct and plenum connection box; View south.



Existing internal fabric ductwork and internal plenum connection boxes

Three flexible ducts fixed to the underside of the canopy of the covered way extend from the AHU to three metal plenum connection boxes at windows on the western elevation. The plenum connection boxes penetrate the building envelope through the top vent of window openings and feed into three fabric ducts suspended above the windows along the length of the hall, approximately 2.2 metres above floor level. The ductwork is installed to the west side of the hall only.

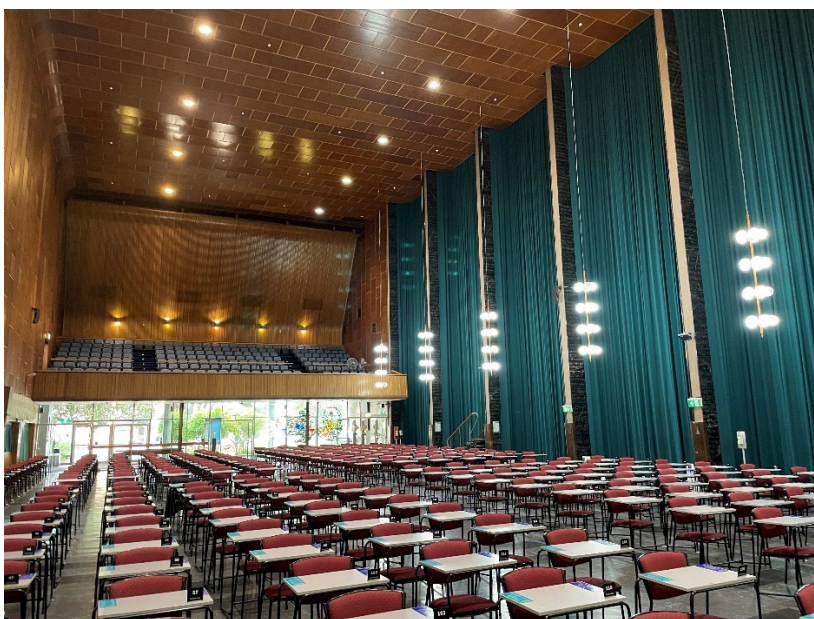
Heat load analysis of the space indicates that the existing AHU plant has sufficient capacity to provide satisfactory cooling for the occupancy level during exams, but the system (i.e. ductwork) as installed is not effective. The existing external flexible ducts are uninsulated, reducing the efficiency of the system. The internal fabric duct cannot accommodate jet diffusers, so does not provide sufficient air throw across the space. Compounded by the low installation height, this results in conditioned air not reaching the east of the space where it is needed most.

It is proposed therefore to retain the existing air handling plant, which is in reasonable condition and well within the current economic life to continue operation for another 8 to 13 years (2037), and to replace only the ductwork.

The existing external flexible ductwork would be replaced with rigid, insulated ductwork, and the internal fabric ductwork with rigid ductwork incorporating jet diffusers which can throw the air effectively. The new internal duct would be fixed at the optimum height to achieve adequate air distribute across the space.



◀ Wilson Hall, main hall interior. Looking south east with curtains closed and seating set up for examinations.



◀ Wilson Hall, main hall interior. Looking northeast – existing flexible ductwork visible to left of image

3.1.2 HERITAGE VICTORIA PRE-APPLICATION MEETING

A site meeting was held with an officer of Heritage Victoria 13 May 2024 to discuss the proposed works. A subsequent letter dated 04 June 2024 noted that HV supports and understands the requirement for heating and cooling at the place and accepts that the current HVAC system is not meeting modern standards, but nonetheless identified serious concerns about the visual harm that would be caused by air-conditioning upgrades adopting the methodology outlined at the site meeting. The methodology has not changed from that discussed during the meeting, the reasoning for this is outlined in the following Section 3.2.

HV's response also expressed an understanding that the proposed works would have a lifespan of around 10-15 years after which a new HVAC may be installed under the floor. This arose from a discussion in relation to the consideration of other options and the remaining serviceable life of the existing plant. Following this discussion, the design team revisited these options and determined that for reasons identified at 3.2.2 below the HVAC cannot currently (or at any time in the foreseeable future) be installed in the basement.

3.2 HVAC UPGRADE OPTIONS ANALYSIS

A number of approaches to address the issues of thermal comfort have been considered prior to settling upon that outlined in the current proposal. Replacement of the curtain walling to the eastern façade to reduce the heat load has not been contemplated. The application of insulating and reflective films would not have sufficient impact to affect the mechanical design, so have not been included in the current proposal.

3.2.1 OPTION - RETAIN & AUGMENT EXISTING HVAC – WALL MOUNTED DIFFUSERS

The University and design team reviewed a proposal prepared in 2011 which was endorsed by Heritage Victoria at that time (P14402) but was not implemented. This proposal entailed the installation of a rigid external duct to the underside of the western canopy, which would rise and penetrate through the canopy within each structural bay to an externally mounted metal manifold above canopy level. Five core drills per structural bay (30 in total) were proposed through the external brick wall, each 300mm in diameter, correlating with the installation of jet diffusers through/on the plywood lining panels to the west of the hall interior.

The internal presentation of this system would be quite discreet, with no ductwork visible internally, but externally there would be ductwork/manifolds visible below and above the western canopy, interrupting the clean horizontal line between the canopy and the elevated sculpture wall of the western elevation. In addition to the negative visual impact of the proposal, and the physical damage associated with the penetrations through the external wall and thirty plywood panels, the current project team concluded that the risk of further harm to the existing building fabric would be unacceptably high – and to the four pressed cement Tom Bass relief sculptures in particular – and that this approach should not be progressed.



Western façade of Wilson Hall – note the limited distance between canopy and sculpture reliefs

3.2.2 OPTION - NEW HVAC PLANT LOCATED IN BASEMENT

An approach explored, which would remove the AHU from the north of the covered way and not have visible ductwork, is the installation of new plant in the basement to provide low level tempered air supply for heating, ventilation and cooling within the hall via floor grilles. This was discounted by the project team for a number of reasons.

There are shortcomings from mechanical performance and energy efficiency perspectives. Air supplied at low level needs to be delivered at a higher temperature and at a lower velocity, increasing the number of floor grilles (i.e. slab penetrations) required to distribute the air around the space. While this may be effective in a theatre for example, where seating is fixed and grilles may be accommodated in tiers, such a system is less effective in a multi-purpose space where flexible furniture arrangements may hamper air distribution. The creation of an outdoor air plenum in the basement would increase energy consumption as the existing waffle floor slab is uninsulated.

There would be operational implications for the University. The basement was purpose built for the storage of the seating, desks and equipment used for exams, graduations and other ceremonies and continues to be used for this purpose. Ductwork emanating from HVAC plant located in the basement would impact on the headroom within the basement and limit, if not eliminate, the capacity for storage.

The associated builder's work would be disruptive to the operation of the hall, and the duration of construction longer than other options considered. There would be issues of buildability and cost. The structural ramifications of multiple penetrations to the waffle slab (likely a minimum of one 300mm diameter penetration per cove) would need to be determined.

The vinyl tiled concrete waffle slab floor of the hall is known to contain asbestos. There is an inherent risk to health and safety in disturbing this material and there would be a substantial impost on the cost of construction in its management. This approach would most likely result the complete removal of the original floor finish.

The proposal would involve irreversible physical damage to significant heritage fabric as well as having a visible impact on the presentation of the vinyl tiled floor. The creation of penetrations in the slab would compromise the existing original in floor hydronic heating, rendering it redundant. The cost and, but more importantly, the environmental connotations of buying new plant when the existing has a serviceable life of fifteen years were also decision making factors.



◀ Wilson Hall, basement. Stored seating. Note the limited headheight below the downstand beams.



◀ Wilson Hall, basement. Underside of waffle slab.



◀ Wilson Hall, main hall interior – note the presentation of the vinyl floor tiles.
 Photograph by Henry Talbot, 1957
 (Source: State Library Victoria)



◀ Wilson Hall, aerial/panoramic view from west showing roof-mounted solar collectors.
 (Source: Nearmap.
 Image dated 3 February 2024)

3.2.3 OPTION - NEW HVAC PLANT LOCATED ON ROOF

Another approach which would remove the AHU from the north of the covered way and not have visible ductwork is the installation of new roof mounted air handling plant to provide high level supply air, via ceiling mounted grilles, for ventilation and cooling within the hall. The in-slab hydronic system could be retained for heating. Further investigation is required to determine the effectiveness of ceiling level diffusers in a space of this height, in distributing air to the occupied zone at ground level.

This is not a viable option as the roof currently accommodates 388 solar collectors and there is insufficient space for additional plant at roof level. The collectors were installed in 2017, with an anticipated life span of up to 25 years or until 2042. The system has the capacity to generate up to 120 MWh per annum, eliminating up to 95 tonnes per annum of carbon emissions. As for the plant-in-basement option, procurement of a new AHU while the existing remains functional is unsustainable, both environmentally and financially.

If this option is to be revisited in the long term, the route of the extended chilled water pipework to serve the new plant at roof level needs to be considered carefully. The most direct route would be externally mounted on the north end of the west elevation. Ductwork would run in the ceiling void to new grilles, 400 to 500mm in diameter, evenly distributed across the space, and cut into the existing – or replica - ceiling panels, which would have a visual impact on the overall presentation of the plywood ceiling panels and requiring careful coordination with existing lighting and services.

3.3 PROPOSAL: RETAIN & AUGMENT EXISTING HVAC, REPLACE DUCTWORK

As noted above there are cost and environmental benefits to the retention of the existing HVAC plant and the replacement only of the flexible and fabric ductwork. The proposed scope of work is outlined in drawings HV.010, HV.011 and HV.012/HV1 and as follows:

The existing external flexible ductwork would be demolished. The three existing window mounted plenum connection boxes would be demolished, internally and externally, and associated bracketry removed. The existing brush wood fence panels surrounding the AHU would be removed and replaced by a perforated steel sheet screen with a galvanised finish.

A new rigid, insulated, galvanised steel duct would be connected to the existing AHU to the north of the covered way. The duct would be fixed to the underside of the existing canopy. Three take-off ducts would drop down and penetrate through window openings in three new locations. It is proposed to remove the glazing from the window opening at each of these take off points, but the aluminium framing sections would be retained in-situ, covered and protected by an infill panel around the duct. Each take-off duct would rise internally to a metal duct, mounted 4.2 metres above floor level. The internal duct work would be powder-coated dark grey tones, complementary to the greys of the vinyl floor tiles. It is proposed to suspend the three internal ducts from a continuous steel beam, running north-south, which would be fixed via a series of steel brackets to the existing concrete encased steel columns behind the plywood panel wall lining.

An individual plywood lining panel would be dismantled at each of the proposed bracket fixing points to provide access to the concrete encased columns. The panels are readily demountable and easily refixed with brads. A section of concrete would be removed locally to facilitate a site weld between the new bracket and the existing steel column. A new plywood lining panel would be installed at each location, to match the existing in detail and appearance, but with a section scribed out to accommodate the new bracket. The dismantled panels would be labelled and stored in the basement on racks in a vertical position, for potential reinstatement in the future.

It is proposed to reinstate the glazing upon removal of the existing plenum connection boxes, and to undertake any necessary repairs to the existing aluminium window sections. Minor repairs and localised refinishing of the plywood panelling would also be carried out following removal of the existing duct support brackets.

The ceiling level to the existing toilet and toilet lobby to the north of the covered way would be lowered to accommodate a new return air duct. The return air duct would run from the AHU to a grille in the Foyer, the new penetration (lintel design tbc by structural engineer) would be centred above the existing glazed screen and door accessing the toilet.

External lighting to the covered way, currently a combination of wall and soffit mounted, would be removed and replaced with new wall mounted light fittings. The wall mounted services in this area would also be consolidated.

This proposal entails minimal builder's work, and so causes minimal disruption to the operation of the hall.

4.1 ASSESSMENT OF HERITAGE IMPACTS

Heritage Victoria's Statement of Significance identifies Wilson Hall as of being of architectural, aesthetic and historical significance to the State of Victoria. The statement notes the following aspects of significance that are relevant to considerations around the current proposal.

Wilson Hall is architecturally significant as an early and distinctive example of the post-war International Style. It was the first major public building in Victoria to combine ornament, artwork and detail within the strict visual tenet of the monumental form of the International Style. Wilson Hall was indicative of the development of aesthetics and architectural design with its monumental proportions, simple cuboid form, use of curtain wall glazing, lavish materials including the Swedish birch panelling and the black Italian marble and the extensive artwork both inside and outside the buildings. Wilson hall is a distinguished work of architects Bates Smart and McCutcheon ... The monumental scale of the Wilson Hall demonstrates the importance of a great hall in the ceremonial customs and ritual of a university.

Wilson Hall is aesthetically significant for the murals and sculptures of Tom Bass and Douglas Annand. The murals are integral elements of the building, and expressive of the meaning and purpose of a great hall and of a university and demonstrate a notable application of decorative schemes.

Wilson Hall is historically significant the first major institutional building of note in Victoria after 1945. Built on the same site as the former Wilson Hall, the new hall was designed to fulfil the same central ceremonial role as its predecessor.

Wilson Hall is substantially intact to its as-built state, and identified aspects of significance including its scale and form, architectural style, integrated artworks and Fincham organ all survive.

The Hall is used for examinations and as place of ceremony and assembly. However, the existing cooling arrangements are inadequate for the needs of users of the hall and the University is seeking to improve the thermal comfort of occupants through improvements in the existing HVAC system. The primary cause of overheating is solar heat gain through the single-glazed, aluminium framed, full height curtain wall to the eastern façade.

After consideration of various approaches, the University has determined, both for practical purposes and in the interests of maintaining the character and significance of the Hall to adopt a system that relies on the replacement of the existing flexible and fabric ductwork with rigid ductwork installed at a higher level within the hall. This will allow the existing HVAC plant to be retained with improved efficiency and 'throw' to provide improved thermal comfort for the occupants.

New risers and ducts are to be installed to the interior and exterior of the western wall of the hall. The works have the potential to affect the significance of an external covered way (and the broader western elevation of the building) and the character of the internal space of the hall. The proposed penetrations may result in the loss of some original fabric (glazing) to the window openings. The installation of ductwork will affect the presentation of the western wall of the Hall both internally and externally.

As noted at 3.1.2 above, Heritage Victoria has previously expressed a preference for HVAC utilising the basement for the upgraded air-conditioning infrastructure. For reasons outlined at 3.2.2 above, this is not a viable option for the University's needs, and would also adversely impact on aspects of the significance of the Hall. A subfloor system would require large numbers of floor vents with impacts on the aesthetic significance of the space. Works of this kind would require substantial loss of original floor fabric including to its concrete waffle slab and floor tiling within the Hall itself. However, the key impacts relate to the valued use of the Hall. Large numbers of floor vents would limit the usefulness of the hall for examination purposes. In addition, it is noted that the basement was purpose-built to provide storage for seating used for exams, graduations and other ceremonies and continues to be used for this purpose. Ductwork associated with HVAC plant in the basement would limit the capacity for storage rendering the Hall less suitable for its intended purpose and diminishing its value ability to illustrate the *'importance of a great hall in the ceremonial customs and ritual of a university'*.

Further to this, a sub-floor approach would require that the existing in-slab hydronic heating system be de-commissioned. This system is still in use, providing heating in the cooler months. If removed, a new means of heating the hall would need to be provided, generating its own set of challenges and impacts. While in-slab hydronic heating system is not identified as a significant element in Heritage Victoria's Statement of Significance, the loss of this feature would diminish the originality and intactness of the place. The proposal would involve irreversible physical damage to significant heritage fabric as well as having a visible impact on the presentation of the vinyl tiled floor. For these reasons, works limited to the previously-altered western wall of the Hall are seen to

be preferable to those that affect, new areas within the hall, its original heating system or largely-intact spaces such as the basement.

The western elevation of Wilson Hall presents to the Cenotaph Garden and forms a prominent elevation as viewed from the University's South Lawn. Architecturally, this elevation comprises two separate areas adopting two distinct architectural expressions. At its upper levels, the elevation incorporates four stone sculptures by Tom Bass set against a brick field. At its lower levels, the western elevation comprises a covered way raised on simple steel columns. The two areas of the western elevation are delineated by the canopy of the covered way.

The covered way is not identified as an element of individual significance in Heritage Victoria's Statement of significance and appears to have been designed to provide back-of-house spaces and amenities for the functions within the Hall. As noted at 2.1, paired glass doors were introduced in various locations along the covered way in 2001/2. These replaced earlier windows and doors which did not meet DDA access and egress requirements. A toilet was built to the northern end of the covered way in 2011. Shortly afterwards, mechanical air-conditioning plant was installed immediately to the south of the toilet block, with associated flexible ducting fixed to the underside of the roof of the covered way connecting, by way of window penetrations, to fabric ductwork installed internally.

As changes have occurred to meet the evolving needs of the Hall, works have generally been limited to areas within and adjacent to the covered way. Again, the continuation of this approach, with new works confined to areas which have already experienced some alteration, is seen to be preferable to those that affect unaltered sections of the Hall.

The proposed works comprise a rationalisation of the existing, somewhat *ad hoc*, arrangement of air-conditioning ducts found within the covered way. Impacts on fabric would be reasonably modest comprising: the fixing of secondary steel to the underside of the existing canopy structure and the removal of existing glazing from three window openings (similar to the current arrangement). The covered way continues to offer the least obtrusive site for external changes to the building and stands as a the least sensitive part of the exterior of the building for the current works. Visual impacts on cenotaph garden are currently mitigated by screen plantings and no changes to this arrangement are proposed.

Externally, the proposed ductwork would be visible below the canopy of the covered way but would replace the existing, *ad hoc* and unsightly arrangement from 2011. The works would provide a marked improvement aesthetically on the existing arrangement of flexible ducts. The upgrade of the existing (ca 2000's) lighting under the canopy will further improve the appearance of this area.

Considering impacts on the western elevation of the building in general, it is noted that the upper sections of this elevation, incorporating Tom Bass' sculptural panels, present to the south lawn as an elevated and distinct architectural entity to the covered way. No fabric to the upper wall or associated sculptures will be affected by the proposed physical intervention nor will the character of this elevation or the aesthetic force of its sculptures be diminished by works undertaken beneath the covered way.

The interior of Wilson Hall is substantially intact to its original state with the Fincham organ and associated artworks and architectural finishes in place within the soaring internal space. The Hall is dominated by its 14m tall curtain wall which forms its entire eastern wall. The fabric ductwork introduced along western wall in c. 2011 comprises one of few later elements within the space. The proposed improvements to the existing air-conditioning arrangements will see the removal of fabric ducts and their replacement with a larger and more robust installation. As per the existing arrangement, it is proposed that three duct risers will enter the space by way of the western window openings, and extend vertically to the three horizontal ducts, located 4.2m above floor level. The existing arrangement of fabric ducts is situated around 2.5m above floor level.

It is accepted that the proposed works would increase the presence of air-conditioning services within the Hall and Foyer with some impacts on the character, fabric and heritage values of the place.

The impact on the Foyer is mitigated by locating the return air grille to the side of the space so that it is not prominent upon entry.

The physical impact of the proposed works would be limited to the creation of a new penetration in the wall between the Foyer and toilet for the return air grille, the dismantling of individual plywood wall lining panels, and the localised removal of the concrete casings to the existing steel columns. These dismantled panels would be labelled and stored securely on site (in the basement), and new panels installed to suit the steel installation. While the Swedish birch plywood panelling is identified specifically as contributing to the architectural significance of Wilson Hall, the proposed impact of replacing six of these panels would be modest; particularly as considered in

the context of the monumental scale of the panelled western wall and the impressive volume of the internal space. The physical and visual impacts of the proposal would be fully reversible without the loss of any original fabric and the original timber panels can be reinstated should this be required in the future.

While the proposed ductwork will inevitably have a presence within the Hall, this is also the case with the existing fabric ducts. These form large white horizontal elements of around 600mm in diameter along the western wall that are foreign to the mid-century aesthetic of the Hall. These are to be removed and replaced with new ducts of a broadly comparable size located in a similar section of the western wall. The proposed ducts will present to the space as a later utilitarian element devoid of strong character and will sit unassertively alongside the modernist aesthetic of the place. The visual impact and presence would be mitigated by the dark grey colour proposed for the ductwork and supporting structure. Throughout, the design intent has been to create a recessive element, but one that is distinguishable from the hues and character of the plywood wall and ceiling lining panels.

Unlike the hydronic heating system which still performs adequately, the absence of large capacity air-conditioning services presents as an oversight in the original design of the building (or over-confidence in the innovative heat absorbing curtain walling). HVAC is an inevitability in a voluminous, sun-drenched space on the scale of Wilson Hall and air-conditioning ducts within the interior of the Hall are central to the provision of a space that meets the reasonable expectations of the University and its patrons.

The Statement of Significance identifies the ability of Wilson Hall to demonstrate the importance of a great hall in the ceremonial customs and ritual of a university. While the proposed works will have a minor visual impact on the interior of the hall, they will underpin the ongoing use of the hall for its intended and valued use. It is anticipated that the proposed HVAC upgrade will enhance the thermal environment of the Hall and significantly improve the conditions in situations of maximum heat load (e.g. examinations). In this light, the proposed works are considered key to maintaining the ongoing use of the heritage place for its founding purpose as a ceremonial and examination hall.

4.2 CONCLUSION

It is accepted that the proposed works would result in some change to the heritage values of the registered place. While the works are limited to the lower sections of the previously-altered western wall, the new arrangement will be visible, and arguably more prominent than, the existing arrangement of fabric ducts. That said, the impacts in terms of loss of fabric, change in character and loss of significance are modest when considered in terms of the vast scale of the Hall. The works will not affect key elements of identified significance including the works of Tom Bass and the Fincham organ or diminish the legibility of original architect's intent.

The works are key to maintaining the ongoing use of the heritage place for its founding purpose as a ceremonial and examination hall and will guarantee its ongoing role of the Hall in the rituals and ceremonies of the University.



◀ Wilson Hall, west elevation. Note the delineation between the recessive character of the covered way below and the elevated sculptural wall above the canopy. Photograph by Wolfgang Sievers, 1959 (Source: State Library Victoria)