

25 February 2013

File No: R/2013/4
Our Ref: 2012/059740
Your Ref: SSD 5087-2011

Peter McManus
Major Projects Assessment
Department of Planning & Infrastructure
GPO Box 39
Sydney NSW 2001
E-mail: peter.mcmanus@planning.nsw.gov.au

Dear Peter

RE: Australian Institute of Nanoscience (AIN) Building, The University of Sydney (SSD 5087-2011)

Thank you for the opportunity to comment on the state significant development application for the proposed construction of the Australian Institute of Nanoscience (AIN) at the University of Sydney and associated works.

The City of Sydney wishes to make the following points regarding the application:

General

The site is zoned SP2- Educational Establishment under the Sydney LEP 2012, however there are no building height or FSR controls applicable to land within the university under the LEP. The Department should therefore be satisfied that the proposal has appropriately demonstrated design excellence with regard to the surrounding context of built form, landscape features and heritage.

The proposal is considered to be well located having regard to the visual character of the adjoining Physics Building and the broader context. The proposed building would have only limited impacts upon the setting of this conservation area as it is nestled behind the rear of the Physics Building in place of the previous non-original annexe.

The proposal has incorporated ecological sustainability initiatives and has incorporated measures from the Green Building Council Australia, Green Star – Education v1 tool, amongst other international benchmarks including BREEAM and Labs 21. The Department should ensure that the proposed accessibility review meets the relevant requirements of the BCA and Disability Discrimination Act.

Archaeology

The Archaeological Assessment identifies the site as having low potential for historical and aboriginal archaeological relics. As part of any approval it is recommended that the following conditions are imposed:

1. Should the subject area of the development be extended, archaeological assessment of the additional areas will be required
2. Should any historical relics be unexpectedly discovered on the site during excavation, all excavation or disturbance to the area is to stop immediately and the Heritage Council of NSW should be informed in accordance with section 146 of the Heritage Act 1977.
3. Should any Aboriginal objects be unexpectedly discovered then all excavation or disturbance of the area is to stop immediately and NSW Government Office of Environment and Heritage is to be informed in accordance with Section 89A of the National Parks and Wildlife Act, 1974.

Heritage and Urban Design

The Physics Building and adjacent Edward Ford Building are listed within the Sydney LEP 2012 as heritage items (I87 and I88 respectively) and the site is located within the University of Sydney Conservation Area (C5). Overall the proposed building is supported on heritage and urban design grounds and the following comments are provided:

- In view of development over time, the formal Wilkinson Axis is now a series of vistas from points along the axis. It is considered that the proposed new building will respect this axis by having a lower building component behind the centre of the Physics Building which is aligned to the axis.
- The proposed building will be seen as a background element behind the existing Physics Building. It should be noted that views to the north along the Wilkinson Axis from St Paul's College have been obscured by current and proposed additions to the College.
- The proposal will not adversely impact views of Physics Building from along Physics Road, nor will it adversely impact upon views to and of the Edward Ford Building.
- The proposed new buildings at St Paul's College will largely screen the new building from the college oval and grounds.
- The physical impacts on the Physics Building, comprising two new linkages between the buildings and fire separation requirements, are generally acceptable. The links have been designed to retain views to the rear of the Physics Building and create a southern courtyard aligned to the Wilkinson axis. They are unlikely to diminish light levels within the main staircase and the vestibule.
- It is considered that the proposal would have an acceptable impact overall on the Sydney University Conservation Area and listed heritage items within the vicinity.

As part of any approval the following conditions should be imposed:

1. Works for making good to the Physics Building:

All new internal and external finishes and works of making good to the Physics Building shall match the existing original work adjacent in respect of materials used, detailed execution and finished appearance

2. Other conditions based on the Recommendations on Page 46 of the Heritage Impact Statement by GBA, namely:

- Original fabric from the Physics Building to be removed is to be tagged and stored for future conservation works
- Appointment of an experienced heritage consultant
- Refinement of the landscaping design to include the selection of flowering climbers for the space at the rear of the Edward Ford Building
- Reuse of the stone pillar, removed following the collapse of the jacaranda tree, in the landscape design
- Need for protection measures to be undertaken as part of the Construction Management Plan to ensure no unforeseen damage to nearby by heritage buildings and the significant tree
- Archival Photographic Recording of the Physics Building, where works are proposed, to be lodged with Sydney University Archives

Trees & Landscaping

The fig tree near the rear of the Edward Ford Building on the City's Significant Tree Register is to be retained. There was also a Jacaranda Tree near the Edward Ford Building on the register but this fell during a storm in June 2012. Thirty trees subject to the TPO are to be removed as part of Stage 2, fifteen of which have been allocated a value of *Consider for Retention*.

The following recommendations with respect to tree protection and preservation are provided:

1. That the existing trees detailed in Table 1 as identified in the Arboricultural Impact Assessment Report prepared by Tree iQ dated 7 March 2012 be retained and protected throughout the proposed development.

Table 1 - Existing trees to be retained and protected

EXISTING TREES TO BE RETAINED	
Tree Nos: 1, 2, 6, 7, 8, 39, 40	Total: 7

2. An explanation should be provided to provide the reason for the removal of the Jacaranda tree (numbered 40).
3. It is recommended that advice is sought from the applicant's qualified arborist regarding tree species selection, tree planting locations and to assist in the provision of a tree management plan for the site. This should ensure the canopy coverage of the site is replaced.

4. The Arboricultural Impact Assessment Report must be revised by the applicants AQF Level 5 Arborist to include an assessment of the current proposal.

The report must be:

- Prepared by a qualified Arborist with a minimum Australian Qualification Framework (AQF) of Level 5 in Arboriculture, and
- Written in accordance with the Australian Standard AS 4970-2009 Protection of Trees on Development Sites (AS4970).

The Arboricultural Impact Assessment report must provide the following details:

- (a) An assessment and discussion of the likely impacts the proposed development will have on the trees listed in Table 1. This should include above and below ground constraints on trees that should be retained.
- (b) If excavation is proposed within the setback zones, as listed in Table 1, exploratory root investigation will be required to determine the exact location of existing roots. This shall consist of an 'air knife', gently removing the soil to expose the existing tree roots where construction is likely to impact on the tree or require root pruning to achieve the proposed development design. An assessment of tree root size, number and condition must be provided (including photos). No roots over 30mm will be permitted for removal.
- (c) Recommendations of any design modifications, construction techniques and/or other protection methods required to minimise adverse impact on trees that should be retained during the demolition and construction works, and into the long term. Note: particular attention must be paid to the existing soil levels, required development levels to integrate to the existing building, and the required tree protection measures.
- (d) Details of the tree protection measures in accordance with AS4970-2009 Protection of trees on development site.
- (e) Details of pruning must be provided.
- (f) Information on the Arborist's involvement during the works is also required.
- (g) Any other works that must be prohibited throughout construction and development on site.

5. Landscaping of the site

Future planning and design of the site should address replacement tree planting to compensate the loss of canopy on the site.

- (a) A detailed landscape plan, drawn to scale, by a qualified landscape architect or landscape designer, should be prepared and include:
 - (i) Location of existing and proposed structures on the site including existing trees.

- (ii) Site establishment including preparation of soil (use of structural or gap graded soil), continuous trenches, subsurface drainage.
- (iii) Details of earthworks including mounding and retaining walls and planter boxes (if applicable).
- (iv) Permeable surfaces Detailing of adjoining surfaces and structures to retained trees and consideration for new trees.
- (v) A planting schedule of the tree species both botanical and common name, pot size (recommended minimum 200lt) and height at maturity.
- (vi) Location of trees to ensure no future conflict of canopy / roots with buildings or services.
- (vii) The design must provide a minimum 25% canopy cover across the site, provided by trees that will reach a minimum height of eight (8) metres and minimum canopy spread of six (6) metres. Palms, fruit trees and species recognised to have a short life span are not considered a suitable replacement. See details below of advanced tree planting requirements.
- (viii) Details of planting procedure and maintenance during tree establishment. Tree protection should be factored into this, including formative pruning / tree guards etc., required to ensure the tree is not damaged from surrounding land use (e.g. car parking).
- (ix) Details of drainage and watering systems. Note Water Sensitive Urban Design and Permeable paving must also be considered.

6. Advanced tree planting

Tree planting within the site should be undertaken in accordance with the following:

- (a) The design should provide a minimum 25% canopy cover across the site, provided by trees that will reach a minimum height of eight (8) metres and minimum canopy spread of six (6) metres. Palms, fruit trees and species recognised to have a short life span are not considered a suitable replacement.
- (b) The trees must be grown to NATSPEC Guidelines for Specifying Trees to ensure quality trees and more successful establishment.
- (c) At the time of planting, the container size is to be a minimum of 100 litres and a minimum height of 1.5 metres.
- (d) The trees should be planted by a qualified Horticulturalist or Arborist of Level 2 under the Australian Qualifications Framework (AQF).
- (e) The replacement plantings should be planted in such a manner as to promote good health during the establishment period, and must be maintained, as far as practicable to ensure tree growth into maturity.

7. Tree supply, installation & maintenance plan

A detailed supply, installation and maintenance specification should be prepared a qualified Consultant Arborist, who holds the Diploma in Horticulture (Arboriculture), Level 5 under the Australian Qualification Framework and consider the following:

- (a) Replacement trees should be contract grown to meet the requirements of the project.
- (b) The estimated time required to produce trees for replacement planting should meet the requirement of the proposed removal program.
- (c) To ensure the consistency of quality plant material at the time of supply, periodic inspection of the trees by a qualified arborist throughout the growing period should be undertaken to ensure compliance and quality control.
- (d) The newly planted trees on site should be appropriately maintained on an on-going basis.
- (e) Maintenance includes watering, weeding, removal of rubbish from tree bases, pruning (in accordance with AS4373-2007), fertilizing, pest and disease control and any other operations required to maintain a healthy robust tree.

Contamination & Health

The report reveals that all results from soil sampling at the site are within the established PPIL's. EIS have subsequently concluded that the potential for significant widespread soil contamination at the site is relatively low, and that the site can be made suitable for the proposed development.

There are also some secondary concerns regarding noise impacts arising from the proposed development:

- 1. Community consultation to be undertaken regarding noise and dust, and the use of intrusive appliances.
- 2. The use of intrusive appliances is to be limited to include respite periods so as to reduce impacts to nearby receivers.
- 3. Times of demolition/ construction at the site to be in accordance with Council's normal practice.

Additionally, due to the proposed demolition of some structures, requirements regarding asbestos removal should also be included.

It is recommended that the following conditions be applied with respect to land contamination and asbestos:

LAND CONTAMINATION

ASBESTOS REMOVAL WORKS

- (a) All works removing asbestos containing materials must be carried out by a suitably licensed asbestos removalist duly licensed with WorkCover NSW, holding either a Friable (Class A) or a Non- Friable (Class B) Asbestos Removal Licence which ever applies.
- (b) Five days prior to the commencement of licensed asbestos removal, WorkCover must be formally notified of the works.. All adjoining properties and those opposite the development must be notified in writing of the dates and times when asbestos removal is to be

conducted. The notification is to identify the licensed asbestos removal contractor and include a contact person for the site together with telephone number and email address.

- (c) All works must be carried out in accordance with the Work Health and Safety Regulation 2011 and the NSW Government and WorkCover document entitled How to Safely Remove Asbestos, Code of Practice and the City of Sydney Asbestos Policy.
- (d) Standard commercially manufactured signs containing the words "DANGER ASBESTOS REMOVAL IN PROGRESS" measuring not less than 400mm x 300mm are to be erected in prominent visible positions on the site.
- (e) Asbestos to be disposed of must only be transported to waste facilities licensed to accept asbestos. The names and location of these facilities are listed in Part 6 of the City of Sydney's Asbestos Policy.
- (f) No asbestos products are to be reused on the site (i.e. packing pieces, spacers, formwork or fill etc).
- (g) No asbestos laden skips or bins are to be left in any public place without the approval of Council.
- (h) A site notice board must be located at the main entrance to the site in a prominent position and must have minimum dimensions of 841mm x 594mm (A1) with any text on the notice to be a minimum of 30 point type size.

The site notice board must include the following:

- (i) contact person for the site;
- (ii) telephone and facsimile numbers and email address; and
- (iii) site activities and time frames.

Traffic & Transport

- With regard to bicycle parking, the Sydney DCP 2012 requires 1 space per 10 staff and 1 space per 10 students for a tertiary educational institution. The AIN building is going to house 518 staff and students, this will require 52 bicycle parking spaces to be provided within the site. The plans show an area of bike racks which does not appear to be suitable for this level of bicycle parking. The DCP also requires end trip facilities to be provided for cyclists. The requirements are for 52 lockers to be provided and 6 showers and change cubicles.
- The number of car spaces is below the maximum number of spaces required by the LEP2012. A total of 12 spaces, 2 of which are accessible are considered to be acceptable for this development.

The following conditions are recommended with respect to traffic and parking:

ASSOCIATED ROADWAY COSTS

All costs associated with the construction of any new road works including kerb and gutter, road pavement, drainage system and footway shall be borne by the developer. The new road works must be designed and constructed in accordance with the City's "Development Specification for Civil Works Design and Construction".

BICYCLE FACILITIES

A bicycle facilities room must be provided close to staff / employee bicycle parking and include:

- a) 6 showers with change area; and
- b) 52 personal lockers.

BICYCLE PARKING

A minimum of 52 bicycle parking spaces must be provided for this site.

The layout, design and security of bicycle facilities either on-street or off-street must comply with the minimum requirements of Australian Standard AS 2890.3 – 1993 Parking Facilities Part 3: Bicycle Parking Facilities except that:

- a) all bicycle parking for occupants of residential buildings must be Class 1 bicycle lockers, and
- b) all bicycle parking for staff / employees of any land uses must be Class 2 bicycle facilities, and
- c) all bicycle parking for visitors of any land uses must be Class 3 bicycle rails.

CAR PARKING SPACES AND DIMENSIONS

A maximum of 12 off-street car parking spaces must be provided. The design, layout, signage, line marking, lighting and physical controls of all off-street parking facilities must comply with the minimum requirements of Australian Standard AS/NZS 2890.1 - 2004 Parking facilities Part 1: Off-street car parking and Council's Development Control Plan. The details must be submitted to and approved by the Principal Certifying Authority prior to a Construction Certificate being issued.

TRAFFIC WORKS

Any proposals for alterations to the public road, involving traffic and parking arrangements, must be designed in accordance with RMS Technical Directives and must be referred to and agreed to by Local Pedestrian, Cycling and Traffic Calming Committee prior to any work commencing on site.

VEHICLES ACCESS

The site must be configured to allow all vehicles to be driven onto and off the site in a forward direction.

CONSTRUCTION TRAFFIC MANAGEMENT PLAN

- a) A Construction Traffic Management Plan must be submitted to and approved by Council prior to a Construction Certificate being issued.

ACCESS DRIVEWAYS TO BE CONSTRUCTED

Approved driveways are to be constructed for all vehicular access to the construction site in accordance with the requirements of Council's "Driveway Specifications" to the satisfaction of Council.

LOADING AND UNLOADING DURING CONSTRUCTION

The following requirements apply:

- a) All loading and unloading associated with construction activity must be accommodated on site.
- b) If, during excavation, it is not feasible for loading and unloading to take place on site, a Works Zone on the street may be considered by Council.
- c) A Works Zone may be required if loading and unloading is not possible on site. If a Works Zone is warranted an application must be made to Council at least 8 weeks prior to commencement of work on the site. An approval for a Works Zone may be given for a specific period and certain hours of the days to meet the particular need for the site for such facilities at various stages of construction. The approval will be reviewed periodically for any adjustment necessitated by the progress of the construction activities.
- d) In addition to any approved construction zone, provision must be made for loading and unloading to be accommodated on site once the development has reached ground level.
- e) The structural design of the building must allow the basement and/or the ground floor to be used as a loading and unloading area for the construction of the remainder of the development.

NO OBSTRUCTION OF PUBLIC WAY

The public way must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances. Non-compliance with this requirement will result in the issue of a notice by Council to stop **all** work on site.

USE OF MOBILE CRANES

The following requirements apply:

- a) Mobile cranes operating from the road must not be used as a method of demolishing or constructing a building.

- b) For special operations including the delivery of materials, hoisting of plant and equipment and erection and dismantling of on site tower cranes which warrant the on-street use of mobile cranes, permits must be obtained from Council for the use of a mobile crane. The permits must be obtained 48 hours beforehand for partial road closures which, in the opinion of Council will create minimal traffic disruptions and 4 weeks beforehand in the case of full road closures and partial road closures which, in the opinion of Council, will create significant traffic disruptions.
- c) Special operations and the use of mobile cranes must comply with the approved hours of construction. Mobile cranes must not be delivered to the site prior to 7.30am without the prior approval of Council.

ACCESSIBLE PARKING SPACE

The design, layout, signage, line marking, lighting and physical controls of all off-street accessible parking facilities must comply with the minimum requirements of Australian Standard AS/NZS 2890.6 - 2009 Parking facilities Part 6: Off-street parking for people with disabilities. The details must be submitted to and approved by the Principal Certifying Authority prior to a Construction Certificate being issued.

Should you wish to speak with a Council officer about the above, please contact Calvin Houlison, Specialist Planner, on 9246 7857 or at choulison@cityofsydney.nsw.gov.au.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'G Jahn'.

Graham Jahn AM
Director
City Planning | Development | Transport

Contact: Michael Ellis
Phone: (02) 9873 8572
Fax: (02) 9873 8599
Email: Michael.Ellis@heritage.nsw.gov.au
Our File No: 10/22079
Our Ref: A1301574

Department of Planning & Infrastructure
Major Projects Assessment
23-33 Bridge St
SYDNEY NSW 2000

Emailed to: Mr Peter McManus <Peter.McManus@planning.nsw.gov.au>

Dear Mr McManus,

**RE: Australian Institute of Nanoscience and Research Education Facility,
The University of Sydney – SSD 5087-2011**

The proposed spatial relationships between the recently proposed St Paul's College University Accommodation, the Australian Institute of Nanoscience and Research Education Facility (AIN building), and the Wilkinson Physics Building are likely to materially affect the significance of the place in terms of heritage impacts to view lines and vistas.

After the University's Main Quadrangle, the Hockey field and the Physics Building are probably the most important 'grouped elements' on the campus.

The Physics Building has its central third building form (Central Pavilion) lowered by Wilkinson to provide connection along the Axis. The additions of Dennison wing and major trees have changed this original connection but it is still one of the important and telling vistas of the University. In the centre of this vista is the Wilkinson (or Hockey) axis, which aligns with the Central Pavilion of the Physics Building and is defined and framed by the Education Building (Jackson Teece) on the north edge of the Hockey field. The view axis continues up to Russell Place and Science Rd. This axis is aligned about 5 degrees west of north.

From the Education Building, it appears that the two 5 storey wings of the proposed Graduate House are not symmetrical (as claimed) about this axis in the St Paul's application. Furthermore, it appears that the AIN building will be seen above the roof of the Physics building and also is not symmetrical about the axis.

In addition, the present landscape character about this vista is likely to be adversely impacted.

These are very important issues involving the heritage of the University of Sydney that need to be resolved.

The Heritage Branch identified that the main heritage issues of the St Paul's College University Accommodation proposal were the following:

- the scale and massing of the proposed new buildings and their impact on the setting of the heritage buildings, particularly Academic House and the outdoor sports courts (with car parking);
- the impact of the proposed development on the landscape character of the College;
- the number and significance of the trees proposed for removal;
- the proposed envelopes for the future buildings on the southern part of the site, known as City Road Precinct and Future Arnott Extension;
- the impact of the development on the surrounding university, especially the setting of the Gate Keeper's Lodge, Madsen Building and the Physics Building; and
- the likely impacts to the landscape character of the place through incremental development not guided by an endorsed master plan for the University of Sydney that fully responds to the heritage values of the place.

In order to facilitate the establishment of the AIN, it is proposed that St Paul's College sell to the University 4,459m² of land on the College's northern boundary, at the rear of the School of Physics. It is also proposed that simultaneously the College will acquire from the University approximately 200m² of land to the north of the oval.

Both transactions are mutually beneficial to St Pauls College and the University of Sydney as it is also integral to the execution of the St Paul's College University Accommodation (SSD 5313-2012) master plan.

However, both development applications and their potential impacts are being assessed in isolation and the photomontages submitted with the AIN application do not accurately depict the extent of trees proposed to be removed in the St Paul's master plan.

The Heritage Council recognises the positive contribution that the Master Plan for the University of Sydney could deliver to its setting and Colleges, provided that the picturesque character, domestic scale of St Paul's College and the Wilkinson Axes are respected.

As delegate of the NSW Heritage Council, and in accordance with the Heritage Council's advice, the Director of the Heritage Branch therefore recommends to the Department of Planning and Infrastructure that the application for the Australian Institute of Nanoscience and Research Education Facility development application SSD 5087-2011 be deferred for receipt of the following information:

- 1. Prior to submission of any application relating to the Australian Institute of Nanoscience and Research Education Facility the applicant shall:**
 - a) Provide an 'urban' section drawn by the University's architect along the Wilkinson (Hockey) Axis that includes accurate height of all buildings – the proposed St Paul's College Graduate House, the proposed Australian Institute of Nanoscience and Research Education Facility (SSD 5087-2011), the Physics Building, the Hockey Field and the Education Building;**
 - b) Provide a physical or computer three-dimensional model to examine significant views and vistas, the Wilkinson Axis and building relationships of the site containing the Physics Building, the proposed Australian Institute of Nanoscience and Research Education Facility, and the proposed St Paul's Master Plan.**
 - c) Provide a photomontage from the Education Building of the Physics Building, which accurately depicts the extent of trees proposed to be removed and buildings constructed in the St Paul's master plan that would form a background to the proposed Australian Institute of Nanoscience and Research Education Facility.**

Reason: to assess the accumulative visual impacts of the proposed St Paul's master plan and the Australian Institute of Nanoscience and Research Education Facility on the setting of the Physics Building.
 - d) Provide a copy of the *School of Physics Conservation Management Plan*, 2005 prepared by Otto Cserhalmi and Partners Pty Ltd.**

Furthermore, as delegate of the NSW Heritage Council, the Director of the Heritage Branch recommends to the Department of Planning and Infrastructure that any future approval for the Nanoscience and Research Education Facility development application SSD 5087-2011 be conditioned in the following manner:

Nominated Heritage Consultant:

- 2. The nominated heritage consultant shall provide advice on the detail design resolution of new elements and inspect the demolition and removal of material to ensure that no unapproved loss of significant fabric or elements occurs (to minimise impacts on significant fabric and to**

manage the implementation of the conditions of approval).

3. All work shall be carried out by suitably qualified tradesmen with practical experience in conservation and restoration of similar heritage items. The nominated heritage consultant shall be consulted prior to the selection of appropriate tradesmen.

Archival Recording:

4. Prepare an archival record of the external and internal areas of the Physics Building in accordance with NSW Heritage Branch guidelines titled 'Photographic Recording of Heritage Items using Film or Digital Capture' for approval. A copy shall be submitted to the City of Sydney Council and the Heritage Branch prior to works commencing.

Site Protection & Works:

5. Significant built elements are to be adequately protected during the works from potential damage. Protection systems must ensure historic fabric is not damaged or removed.
6. New services shall be concealed appropriately to minimise visual impacts. The installation of new services and fit-outs shall be carried out in such a manner as to minimise damage to or removal of historic fabric and shall not obscure historic features. Any penetrations through heritage fabric for supply and waste pipes and mechanical ducts should be prevented.

Archaeology:

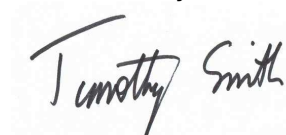
7. The Applicant must ensure that if intact archaeological deposits and/or State significant relics are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.

Other Conditions (Making Good):

8. All new internal and external finishes and works of making good to the Physics Building shall match the existing original work adjacent in respect of materials used, detailed execution and finished appearance.

If you have any questions regarding the above matter please contact Michael Ellis at the Heritage Branch, Office of Environment and Heritage on (02) 9873 8572.

Yours sincerely



27/02/2013

for

Petula Samios

Director, Heritage Branch

Office of Environment and Heritage,

AS DELEGATE OF THE NSW HERITAGE COUNCIL

Cc. Greg Robinson, Director, Campus Infrastructure & Services <g.robinson@sydney.edu.au>

Our Reference: SYD13/00170
Your Reference: SSD5087-2011
Contact: Xi Lin
Telephone: 8849 2906



Transport
Roads & Maritime
Services

A/Director
Department of Planning and Infrastructure
Major Project Assessment
GPO Box 39
Sydney NSW 2001

Attention: Peter McManus

**CONSTRUCTION OF AUSTRALIAN INSTITUTE OF NANOSCIENCE EDUCATION
FACILITY, CITY ROAD, CAMPERDOWN**

Dear Mr Sargent,

I refer to the Department's letter of 21 January 2013 (Ref: SSD5087-2011) with regard to the abovementioned development application, which was referred to Roads and Maritime Services for comment.

RMS has reviewed the application and raises no objection, subject to the following requirements:

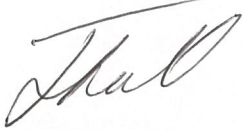
1. The design and construction of the vehicular crossing and kerb and gutter works on Parramatta Road and City Road shall be in accordance with RMS requirements. Details of these requirements should be obtained from RMS's Project Services Manager, Traffic Projects Section, Parramatta on 8849 2496.
2. A Construction Traffic Management Plan (CTMP) detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control should be submitted to the Department prior to the issue of a construction certificate. The CTMP should be accompanied by a Traffic Control Plan.
3. The proposed development will generate additional pedestrian movements in the area. Consideration should be given to ensuring pedestrian safety.
4. All traffic control during construction must be carried out by accredited RMS approved traffic controllers.
5. A Road Occupancy Licence should be obtained from the RMS for any works that may impact on traffic flows on City Road during construction activities.
6. The layout of the proposed car parking areas, loading docks and access driveway associated with the subject development (including, driveways, grades, turn paths, sight distance requirements, aisle widths, aisle lengths, and parking bay dimensions) should be in accordance with AS 2890.1- 2004 and AS 2890.2 – 2002 for heavy vehicle usage.

Roads and Maritime Services

7. The swept path of the longest vehicle entering and exiting the subject site, as well as manoeuvrability through the site, shall be in accordance with AUSTROADS. In this regard, a plan shall be submitted to Council for approval, which illustrates that the proposed development complies with this requirement.
8. All works / regulatory signage associated with the proposed development are to be at no cost to RMS.

Following the Department's determination of this matter, please forward a copy of the development consent to RMS. Any inquiries into this matter should be directed to Assistant Planner Xi Lin on telephone 8849 2906 or via email at: xi.lin@rms.nsw.gov.au.

Yours sincerely,



James Hall
Senior Land Use Planner
Transport Planning, Sydney Region

28 February 2013



Sydney
WATER

27 February 2013
ATTENTION: PETER MCMANUS



Cameron Sargent
A/Director Metropolitan & Regional Projects North
Department of Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

SSD 5087-2011- Australian Institute of Nanoscience & Research Education Facility, The University of Sydney

Dear Mr Sargent,

Thank you for your letter of 21 January 2013 requesting comments on the proposed construction of the Australian Institute of Nanoscience & Research Education Facility, at The University of Sydney. Sydney Water has reviewed the proposal and provides the following comments for the Department's consideration.

Water

A preliminary investigation has identified that there is sufficient water capacity and there is a number of mains available for connection. Subject to the location of proposed water connections, extensions of the existing mains may be required.

The proponent should provide a detailed water servicing strategy at the Section 73 Application stage.

Wastewater

A preliminary investigation identified that a trunk 914mm x 1219mm brick oviform wastewater main traverses the site and there is system capacity to service the proposed development.

At the Section 73 Application stage, the developer should submit a detailed wastewater servicing strategy to Sydney Water. The strategy should consider suitable connection points to the existing trunk main by:

- Avoiding direct connection to the oviform main.
- Extensions of reticulation mains from existing maintenance holes.

As the site is traversed by a number of wastewater mains, where works are in close proximity to Sydney Water assets the developer will need to carry out works to protect our mains. Subject to the scope of development, servicing options may involve adjustment/deviation and or compliance with the Guidelines for building over/adjacent to Sydney Water assets. The WSC will provide more detailed requirements.

If the following apply, further action will be required or information provided to Sydney Water:

- Sheet pile adjoining Sydney Water asset – Written approval from Sydney Water.
- Dewatering – Groundwater Impact Analysis.
- Building over or adjacent to wastewater main – Verify design complies with allowable loading conditions.

Stormwater

Although no accurate plans were provided, it appears that the development will be built over a Sydney Water Stormwater channel which is prohibited.

As the stormwater channel is approximately 7m below ground, Sydney Water's Stormwater Group is willing to negotiate terms for building adjacent to the channel with the proponent.

Our Stormwater group is currently in discussions with the University of Sydney regarding deviation of the stormwater channel, which will address issues for the University and St Paul's College. Therefore, approvals for building adjacent to the channel are subject to discussion and deviation outcomes.

Trade Waste Information

Should this development generate trade wastewater, this correspondence does not guarantee the applicant that Sydney Water will accept the trade wastewater to its sewerage system. In the event trade wastewater is generated, the property owner is required to submit an application for permission to discharge trade wastewater to the sewerage system before business activities commence. A boundary trap will be required where arrestors and special units are installed for trade waste pre-treatment.

For further information please visit the Sydney Water website at:

<http://www.sydneywater.com.au/OurSystemsandOperations/TradeWaste/>

Sydney Water Servicing

Sydney Water will further assess the impact of any subsequent development when the developer applies for a Section 73 Certificate. This assessment will enable Sydney Water to specify any works required as a result of future development and to assess if amplification and/or changes to the system are applicable. The developer must fund any adjustments needed to Sydney Water infrastructure as a result of the development.

The developer should engage a Water Servicing Coordinator to get a Section 73 Certificate and manage the servicing aspects of the development. The Water Servicing Coordinator will ensure submitted infrastructure designs are sized and configured according to the Water Supply Code of Australia (Sydney Water Edition WSA 03-2002) and the Sewerage Code of Australia (Sydney Water Edition WSA 02-2002).

Sydney Water requests the Council to continue to instruct proponents to obtain a Section 73 Certificate from Sydney Water. Details are available from any Sydney Water Customer Centre on 13 20 92 or Sydney Water's website at www.sydneywater.com.au.

Sydney Water e-planning

Sydney Water has created a new email address for planning authorities to use to submit statutory or strategic planning documents for review. This email address is urbangrowth@sydneywater.com.au. The use of this email will help Sydney Water provide advice on planning projects faster, in line with current planning reforms. It will also reduce the amount of printed material being produced. This email should be used for:

- Section 62 consultations under the Environmental Planning and Assessment Act 1979
- consultations where Sydney Water is an adjoining land owner to a proposed development
- consultations and referrals required under any Environmental Planning Instrument
- draft LEPs, SEPPs or other planning controls, such as DCPs
- any proposed development or rezoning that will be impacted by the operation of a Sydney Water Wastewater Treatment Plant
- any proposed planning reforms or other general planning or development inquiries



If you require any further information, please contact Corrine Manyweathers of the Urban Growth Branch on 02 8849 4014 or e-mail corrine.manyweathers@sydneywater.com.au.

Yours sincerely,

A handwritten signature in blue ink, appearing to read "Adrian Miller", written over a horizontal line.

Adrian Miller,
Manager, Growth Strategy



Wesley College

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Telephone 612 9565 3377
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lsutherland@wesleycollege-usyd.edu.au
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ABN 82 358 844 282

A College of the Uniting Church in Australia within The University of Sydney

26 February 2013

Submission in Response to Application for State Significant Development SSD 5087-2011 University of Sydney- Science Research & Education Facility (Australian Institute of Nanoscience)

We would like to lodge the attached submission for consideration in relation to the proposed Australian Institute of Nano Science at the University of Sydney.

We are a residential building adjacent to the proposed new building and we accommodate Sydney University students, with normally 225 students in residence, and expanding currently with a new floor being added which will bring our total numbers to 260 by the end of 2013.

The precinct within the University that the new Nano Science building will sit within has predominantly been a residential precinct and with the addition of this new building, the nature of this precinct will significantly change. While Wesley has had the Physics building and St Paul's as neighbours in the precinct, there is no entrance or traffic of any kind flowing from the current Physics building opening onto Wesley College. The only traffic in this space has been residential pedestrian traffic and cars passing through a single lane thoroughfare at the back of Wesley and St Paul's. This thoroughfare is on Wesley property, with a 'right of way' for St Paul's. This is a quiet zone within a busy University.

A building of the significance of the Nano Building will have a major impact in relation to noise issues and traffic flow in our area. Its size and its relationship with our building are also important. Its style of use, with offices and large lecture theatres will impact on us, if not considered carefully.

The building design needs to take into account our use of building as residential and acknowledge this in its design considerations and proximity to our building line.

There has been little consultation with us as the closest neighbour in the design process so far. This has been very concerning as we are independent of the University and therefore not part of the internal process and rely on the University to provide us with the necessary information.

Our residents and their study environment is my primary concern. I need assurance from the design process that this will not create significant noise and traffic flow concerns for my resident students.

I look forward to a response and working to ensure the best possible outcomes.

Yours sincerely

Lisa J Sutherland
Master

**Submission in response to Application for State Significant Development
SSD 5087-2011 University of Sydney - Science Research & Education Facility (Australian
Institute of Nanoscience)**

On behalf of Wesley College, we make the following submission on the above application.

Background

Wesley College is a residential college within the Sydney University immediately to the west of the subject site and sharing a common boundary with it. Whilst Wesley is not a land owner (the land is owned by the University) Wesley occupies land defined by survey and granted by the University forefathers to the Uniting Church in 1909, in perpetuity.

Wesley College is in the construction stage of a significant upgrade to its Purser Wing, a pure residential wing, adding an additional 42 bedrooms, at a cost of some \$5 million. It is the Purser Wing that is immediately adjacent to the proposed development and we make no apologies for protecting our assets and the future well being of our residents.

Certain aspects of the Science Research (Nano) development as depicted in the current application will have a significant and negative impact on Wesley College, in particular the residential Purser Wing. Those impacts flow primarily due to the proposed building location and form along its western boundary.

We understand that there is opportunity for the Nano Building and Wesley to happily co-exist, but consultation on the impacts we raised below would be highly desirable. We understand that there is opportunity during this major project application phase for many of these issues to be addressed, and we are open to consultation and discussion on alternate solutions at any time.

The proposal as lodged considers impacts to residents of St Pauls in relation to design considerations and visual, noise, privacy, traffic circulation, and other impacts. However these considerations have not been taken into account for Wesley College. This oversight seems very unusual, again, in light of the fact that Wesley is the proposal's nearest and existing residential neighbour.

We have identified an number of issues of concern. They are listed below in no order of import.

Items of significant concern-

1. Ill-conceived west boundary location.

The drawings depict a new subdivision boundary running roughly north - south from behind the Wesley substation to the back of the existing Physics building.

It is a boundary that has been plotted on a masterplan without any reference to the landform, topography or existing infrastructure improvements that exist in the area. The Applicants drawing A-1013 clearly shows the boundary slicing through the existing carpark at an unrelated angle almost eliminating the access driveway to the carpark at its northern lower end.

Although the existing carpark is on St Pauls land, Wesley College has enjoyed the benefit of this carpark over many years by sublease from St Pauls. The design of the boundary and its

non- relationship to the topography is ill-conceived, and it then follows that the building bulk, parallel to that boundary is equally unrelated to the physical features of the sites edge.

A boundary that reflected the slight NNE aspect of the existing carpark would be a very significant improvement.

2. Insufficient building setback on its western boundary.

The current design shows a building of some 10+ metres height above the current ground levels but setback from the western boundary by only 4 metres. This would be considered a minimal setback for a 10m high building in any situation, and presents a very tight urban solution to a building on a large acreage campus.

Any chance of softening the impact of the wall and the minimal setback is eliminated by the use of a "plenum" for 2m of the 4m setback. The plenum is in fact a 3m deep open trough and the current drawings do not indicate any mesh or handrails at the top. The trough will simply become a giant garbage collector and attract rats and other vermin. It is a most unattractive and badly resolved edge detail along the complete 40m frontage of the building facing Wesley College.

Given there is less than 2m remaining from boundary to deep plenum wall, landscaping will be limited to minor shrubs as there is insufficient room for deep rooted planting to soften the west walls impact. We suggest that increased setback, wall modulation, softening or other devices are essential to ensure the building is a good neighbour in an urban design context.

3. Unsympathetic west wall treatment.

The whole of the west wall facing directly at the Purser Wing of Wesley is a precast concrete panelled wall some 7m high above ground and 40m in length. It has no modulation nor fenestrations and faces the adjoining heritage Wesley College which has with intense brick detailing and rhythmic fenestrations. The blandness of the facade treatment is clearly shown on drawing A 1601. A harsher treatment and poor urban design consideration of a neighbour could not be thought of !

At the upper level of the Nano building there is office accommodation overlooking a 2m wide roof terrace. The western terrace however is not accessible from the offices which have small narrow vertical awning sash windows. This terrace is openly visible from the existing first floor and new second floor of Purser wing, and of concern is that the terrace will remain a lifeless windswept space due to its lack of access. Careful design considerations could make a significant improvement of this aspect and turn a negative impact into a positive one.

4. Overshadowing of a residential building.

Purser Wing is a strictly residential building with each student bedroom having one window only with access to daylight. All bedrooms facing east are potentially impacted from the presence of the Nano building in terms of over shadowing, and the potential elimination of direct sunlight that can penetrate into the bedrooms. The shadow diagrams supplied, dwg A-1051, are small in scale and we cannot be certain that morning winter sun is not lost from some bedrooms.

The accuracy of the shadow diagrams is in question in relation to actual floor and ground levels as, for example, on dwg A-1051, 3pm Dec 21 diagram shows a lengthy shadow cast by the substation building behind the Purser Wing, when in fact at the east edge of the substation roof is virtually at ground level and no shadow will be cast.

The applicant should be asked to check the shadow studies and provide larger detail drawings of winter shadows at 9,10 and 11am June 21st. The correct way of illustrating non-impact on Purser would be elevational studies of the shadows on the Purser east wall.

5. Potential Noise issues with the Nano Building.

Wesley College is extremely concerned about the noise levels that will emanate from the Nano Building. The body of the EIS states that noise modeling was carried out to assess impacts from the Nano plant room, and that based on this modeling, no impacts were identified to St Paul's – identified as nearby residential sensitive receivers. AECOM's study clearly did not include any computerised modeling of noise expected from the AIN facility. In preparing their Noise Study, AECOM carried out three tasks: monitoring of existing industrial background noise in the area at St Paul's, monitoring noise coming from comparable plant rooms elsewhere on the Sydney University Campus, and determining noise limits the AIN proposal must achieve for sensitive receivers at St Paul's according to the EPA's Industrial Noise Policy. Wesley was not considered.

The AECOM Noise Study does not draw a conclusion about whether the expected noise from the AIN plant room will achieve project specific noise criteria or adhere to the EPA's Industrial Policy Guidelines. The Noise Study notes only the noise coming from similar plant rooms on the Sydney University campus, and the main materials used in their construction. The Noise Study states that this information is provided so that the designers of the proposed AIN plant room can take into account the noise levels achieved at similar facilities.

Wesley College's concerns are that noise generating components of the plant room have not been identified, adequate noise modeling has not been carried out, and impacts to the Wesley residents have been completely ignored. Other noise generating components have not been discussed, such as back-up generators or HVAC systems. Because Wesley is clearly a nearby residential sensitive receiver the noise impact to Wesley should be formally assessed and if necessary, specific noise mitigation measures should be included. Given the proximity to the adjoining residential Purser Wing, then Wesley insist that a strict condition of consent be included, as is normal, that all plant not exceed background dBA at the boundary by more than 5dBA at all times. We emphasize at all times as Wesley is a residential facility and noise impact will be noticed most profoundly during the night.

Wesley does have recently commissioned records of the ambient background noise at the east face of Purser Wing as a point of reference and future comparison.

6. Consultation Process.

There has been no consultation with Wesley College – and Wesley is the nearest neighbouring residential land use (other than St Paul's College future extension). The proposal notes that consultation has taken place with St Paul's, however Wesley has not been provided with an opportunity to learn about the proposal and its planned features.

We have had one meeting with the developers which was well after the application was lodged. That meeting was somewhat inconclusive as our comments could not be taken on board, as the developer was in the process of tendering the project on a D&C basis, and they clearly stated they needed flexibility to allow differing approaches to emerge from that process. As the proposal's nearest residential neighbor, Wesley College requests continued consultation with the developers to ensure our concerns can be discussed in detail.

7. Pedestrian Links and pathways

The Eastern Ave to Wesley College pathway access (Fig 5a- body of the EIS report Page 15) is of concern. Specifically, it appears that pedestrians will utilise the pathway between Wesley College's Purser Wing and Physics building.

The development is seeking 24/7 operations (P30) and there are a large number of students envisaged with access to the Southern Entry from Fisher Road. There is no consideration of potential noise or privacy impacts related to students using the passageway past the Purser Wing rooms, where students study, sleep, and generally require privacy.

The body of the EIS references an Arup Transport Impact Report when assessing pedestrian routes. However, the Arup Transport Impact Report assesses a completely different pedestrian route (Page 4/5) to the one discussed in the body of the EIS (Page 15 Fig 5a). It appears that the EIS has taken a different approach to what Arup's specialist consultants advised and this should be substantiated. Access to the AIN building should not be designed to include/promote access through the Wesley Pathway, and potential impacts to Wesley should be assessed, and mitigation measures must be to be put in place to actively discourage it.

8. Construction Noise

The EIS states that construction is assessed as part of a separate DA to Sydney City Council. Wesley requests that the normal and standard protections are conditioned as part of any consent conditions to ensure that construction noise is limited in both volume and time of day.

9. Light Spill

No light spill assessment has been included in the EIS, which would provide detail of anticipated light impact of the development on Wesley. Given that Purser Wing is purely residential and nighttime light spill is of major concern, we request such a study is undertaken, and controls also be imposed that limits security lighting and spill to minimum levels..

Summary

Wesley College has significant concerns about negative impacts on its wellbeing due to this proposed development as it is currently presented. We believe that there is opportunity for the Nano Building and Wesley to happily co-exist, but consultation on the impacts we have raised would be highly desirable.

We understand that there is opportunity during the design development phase for many of these issues to be addressed and we repeat that we are open to consultation at any time.



Warren Marsh

pmdl

Senior Consultant

Reg# 3259



Mr Derek Sinclair
Director
Integrated Site Design Pty Ltd
PO Box 6396
ALEXANDRIA NSW 2015

Contact: Peter McManus
Phone: 02 9228 6316
Fax: 02 9228 6455
Email: peter.mcmanus@planning.nsw.gov.au
Our ref: SSD 5087-2011
File: 11/22298-1

Dear Mr Sinclair

**Australian Institute of Nanoscience, Camperdown Campus, The University of Sydney
[SSD 5087-2011]**

Response to Submissions

The exhibition of the Environmental Impact Statement (EIS) for the above proposal ended on Thursday, 28 February 2013. All submissions received by the department during the exhibition of the proposal are available on the department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=5087

I would appreciate it if you would provide a response to the issues raised in these submissions. Please provide your response to submissions to the department as soon as possible.

In addition to addressing the matters raised within the submissions referred to above, the department has undertaken a preliminary assessment of the proposed development and requests that the following matters be addressed:

- The proposed development is to be assessed against the recently gazetted Sydney Local Environmental Plan 2012 and the EIS should be updated accordingly.
- It is requested that details of the early works Part 5 Review of Environmental Factors and development application approved by the City of Sydney Council, including stormwater details, be provided to the department.
- The statement provided within the EIS regarding State Environmental Planning Policy (Urban Renewal) 2010 is not relevant as the proposed development site lies outside of the operational boundary of the Redfern-Waterloo precinct identified within the SEPP.
- Further clarification is required regarding the proposed construction of the pedestrian walkway and its future timing and relationship with the pedestrian walkway identified on the St Paul's development site, noting that the development description identifies that consent is sought for a pedestrian walkway. It is also noted that consent is sought for an entry forecourt above the main switch and emergency generator room, however additional details regarding the temporary edge/boundary treatment are required to be provided in the event that the common pedestrian walkway between the University and St Paul's site's is not envisaged to be immediately constructed.
- The large areas of precast concrete panel cladding on the southern and western façades are to be revised to provide greater visual interest through improved articulation, materials and finishes.

- It is understood that currently no right-of-way facilitating pedestrian access from Western Avenue to the rear of the existing Physics Building exists for the benefit of the University of Sydney. Accordingly, details of the pedestrian access and control arrangements of the proposed western courtyard are to be provided and the submitted architectural drawings are to be amended detailing no direct pedestrian access from the western courtyard onto Wesley College's land.
- The submitted noise survey memorandum is insufficient. The department requires the preparation of a noise impact assessment in accordance with the NSW Industrial Noise Policy and Interim Construction Noise Guideline that addresses the relevant noise criteria and guidelines, procedures and noise logger instruments, methodology for emissions and assessment, noise prediction and assessment including construction and demolition noise impacts, discussions and recommendations.
- The assessment of the proposed development's amenity impacts within the EIS fails to adequately consider potential impacts on the adjoining dorm rooms within Wesley College. Further, no consideration of potential light spill impacts has been undertaken from the proposal's 24 hour operation. Accordingly, further consideration of the proposed development's potential impacts on the amenity of Wesley College and light spill is required.
- The identified key design features required to meet the objectives of Access to Premises Standards are required to be incorporated into the design of the proposed development prior to its determination, and not prior to the issuing of a construction certificate as proposed, to ensure compliance with the provisions of the BCA and Disability Discrimination Act.
- To assist in the assessment of the potential overshadowing impacts generated by the proposed development, the department requests that the outline of shadows cast by the proposed development be coloured to better define their extent, and particularly their impact on adjacent residential colleges.
- The proposed Mitigation Measures are recommended to be updated to include recommendations relating to amenity criterion, accessibility, geotechnical, stormwater and flooding, ecological sustainable development and traffic management (e.g. preparation of a transport management and accessibility plan).
- Details of operational and construction jobs associated with the proposed development are to be provided.

Note that under clause 113(7) of the *Environmental Planning and Assessment Regulation 2000*, the days occurring between the date of this letter and the date on which you provide your response to submissions to the department are not included in the deemed refusal period.

Your contact officer, Peter McManus, can be contacted on 02 9228 6316 or via email at peter.mcmanus@planning.nsw.gov.au. Please mark all correspondence to the attention of the contact officer.

Yours sincerely


Heather Warton

5/3/13

**Director
Metropolitan and Regional Projects North**