RESPONSE TO SUBMISSIONS

INNER SYDNEY HIGH SCHOOL (SSD 7610)

9 OCTOBER 2017
PREPARED FOR NSW DEPARTMENT OF EDUCATION

URBIS

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1. INTRODUCTION

This “Response to Submissions” Report (RtS) addresses the issues raised in community and stakeholder submissions received during the public exhibition of the Environmental Impact Statement (EIS) for the Inner Sydney High School at 242A and 244 Cleveland Street, Sydney (SSDA 7610).

This RtS also includes a request to demolish the 1960’s building (Building 4) and the bridge links between the heritage buildings. Demolition had been assessed as development without consent in a Review of Environmental Factors (REF), pursuant to Part 5 of the *Environmental Planning and Assessment Act, 1979*. The REF was prepared with associated documentation but not determined by the Department of Education (DoE). *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* (ESEPP) came into effect and removed demolition as development without consent. The change in legislation has meant that the demolition cannot be done as development without consent and needs to be included in the SSD, to facilitate the main built works. The original SEARs for the SSD was issued based on inclusion of demolition. The SEARs therefore contemplated the environmental requirements for demolition. These have been addressed in the early works documentation attached to this RtS.

The EIS was on public exhibition between 22 June 2017 and 7 August 2017. During this period, eight submissions were received from government agencies and local council. These included submissions from:

- The Department of Planning and Environment (DPE)
- City of Sydney Council (CoS)
- Transport for NSW (TfNSW)
- Roads and Maritime Services (RMS)
- Sydney Water (SW)
- Office of Environment and Heritage (OEH)
- Heritage Council of NSW
- NSW Environment Protection Authority (EPA)

A number of public submissions were also received. The key matters raised in the agency and public submissions include:

- Height and scale;
- Heritage impacts on the existing buildings and Prince Alfred Park;
- View loss;
- Amenity;
- Traffic and transport;
- Wind;
- Flooding and stormwater.

This RtS incorporates amendments to the design to address the issues raised. The podium has been lowered to two storeys to minimise its scale. The ‘twist’ of the tower has also been removed, which is supported by the Design Integrity Panel (DIP) as it provides a more slender tower form that better relates to the heritage items. Generally, the DIP endorses the changes relating to form, geometry and massing with detailed comments provided below.

The amended plans and the response to submissions demonstrate that the proposal balances environmental impact with community benefit and should be approved. This response and assessment of the amended plans confirm that the there are no significant adverse impacts associated with the Project.

The specialist consultants have assessed the design and recommend mitigation measures to ensure the proposal will not have any unreasonable or significant traffic, heritage, social and environmental impacts on adjoining or surrounding properties or the public domain. The content contained in this RtS and the EIS, demonstrates that the application should be approved.

2. OVERVIEW OF THE PROPOSAL

The Project, as presented in the EIS, will accommodate up to 1,200 students to take enrolment pressure off surrounding high schools exceeding student capacity, and accommodate future population growth within City of Sydney Local Government Area (LGA).

The project seeks development consent for the following key elements:

- Internal reconfiguration and refurbishment of the existing heritage listed buildings on the site to create:
  - General and specialist learning areas;
  - Amenities; and
  - Staff workplaces for teachers and administrative staff.
- Excavation for basement level.
- Construction of a 13 storey plus roof level and basement (approximately 56.5m from park level), multipurpose school building, containing:
  - Collaborative general and specialist learning hubs with a combination of enclosed and open
  - spaces;
  - Library and Resource Hubs;
  - Staff workplaces;
  - Student canteen;
  - Indoor Movement Complex and other indoor recreation and performance spaces;
  - Outdoor learning and recreational areas.
- Associated site landscaping and public domain improvements; and
- Augmentation and construction of ancillary infrastructure and utilities as required.

3. OVERVIEW OF AMENDMENTS TO THE PROPOSAL

In response to the submissions received, amendments are proposed to the design. Documented in the Architectural Plans submitted at **Appendix A** and the RtS Design Report (**Appendix B**) prepared by FJMT.

3.1. PROPOSED EARLY WORKS

3.1.1. Demolition of Building 4 (1960's Building)

The demolition of the existing 1960's building (Building 4) and associated early works on the site was to be undertaken as development without consent through an environmental assessment pursuant to Part 5 of the *Environmental Planning and Assessment Act, 1979*. A Review of Environmental Factors (REF) was prepared with associated documentation but not determined by the Department of Education.

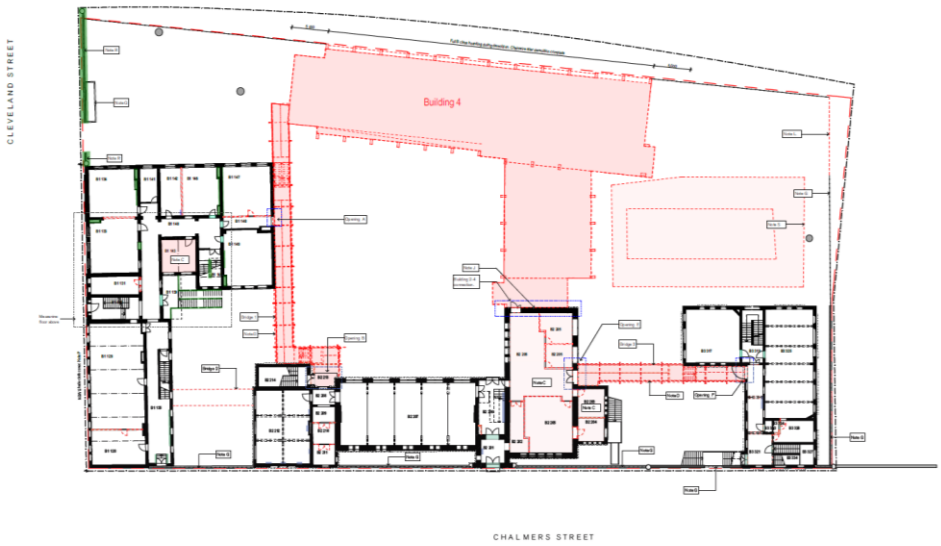
State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 (ESEPP) was gazetted on 1 September 2017T. The ESEPP removes demolition as development without consent and the REF was not able to be determined.

Pursuant to Clause 55 of the *Environmental Planning and Assessment Regulation 2000*, we request that SSD 7610 be amended to include demolition and early works. DPE has given in principle support for this approach.

Importantly, the original SEARs for the SSD was issued based on inclusion of demolition. The SEARs therefore contemplated the environmental requirements for demolition.

The proposal includes demolition of the 1960s building and the removal of all connecting bridge links on site. The location of Building 4 is shown on the demolition plan below and in Figure 1.

Figure 1 – Demolition Plan



(Source: FJMT)

3.1.2. Works Associated with Demolition

To facilitate the demolition works, the following activities are proposed:

- Removal of selected trees surrounding the Building 4 envelope:
  - 15 trees are to be removed during the demolition phase;
  - 10 trees on and adjoining the site are to be retained and protected for the duration of the works.
- Site services isolation.

- Temporary works (for on-site truck turning, hoardings, site amenities, support gantries and site services connections).
- Removal of hazardous material, services strip out and selected internal walls of Buildings 1, 2 and 3 and the relocation of existing palm planting within Prince Alfred Park.

3.2. AMENDMENTS TO OVERALL DESIGN

FJMT Studio has refined the proposal to meet the specific operational requirements of the School and to address the concerns raised by DPE, government stakeholders and the community during the exhibition period. The key design changes relate to height, bulk, scale and heritage. All design changes are indicated on the revised plans submitted with this RtS and summarised below. A comparison of the SSD proposal and amended design are shown in Figure 2 and Figure 3.

Basement

- Rationalisation of building structure resulting in improved planning efficiencies and reduction in building footprint.
- Structural grid realignment to provide clear spaces over the Movement Complex and to reduce transfer structures.
- Access/Egress stair locations reviewed, provision of a clear circulation strategy to meet code and assist way finding.

Lower Ground Floor

- Design development of Podium Form and the relationship of the ground plane and park.
- Revised stair configuration providing a clearer access/egress circulation strategy to meet code requirements and improve wayfinding.
- Realignment and separation of eastern infill to provide additional clearance from heritage fabric and increased amenity.
- Development of carpark design in response to flood mitigation.

Ground Floor

- Design development of Podium Form and the relationship of the ground plane and park.
- Revised stair configuration providing a clearer access/egress circulation strategy to meet code requirements and improve wayfinding.
- Realignment and separation of eastern infill to provide additional clearance from heritage fabric and increased amenity including improved accessible access.
- Detailed review and development of existing building levels and the provision of compliant and equitable stair access to all areas.

Level 1

- Design development of Podium Form and the relationship of the ground plane and park.
- Revised stair configuration providing a clearer access/egress circulation strategy to meet code requirements and improve wayfinding.
- Refined and reduced bridge links to heritage buildings.

Levels 2-3

- Northern building line reduced approx. 2m to the south.
- Structural systems review – reduction of transfers, rationalisation of column placement to provide columns to edges of space.

- Revised stair configuration providing a clearer access/egress circulation strategy to meet code requirements and improve wayfinding.
- Revision to façade materiality to align with selected procurement methodology.

Levels 4-5

- Northern building line reduced approx. 2m to the south.
- Relocation of one studio floor level into the tower resulting in a height reduction of the Studio volume of approximately 3 metres.
- Reduction in height of the roof top Games Court fence by approximately 1m.
- Rationalisation of the Tower form and structure to improve functional planning. Involving the removal of the twisted form and realignment of the structural grid.

Levels 6-11

- Rationalisation of the Tower form and structure to improve functional planning. Involving the removal of the twisted form and realignment of the structural grid.
- Enlarged tower floor plate to accommodate a full year group.

Level 12 Roof

- Roof top plant relocated to the south to provide better amenity to the roof top terrace.

Figure 2 – Chalmers Street Facade

Picture 1 – SSD Proposal

Source: FJMT

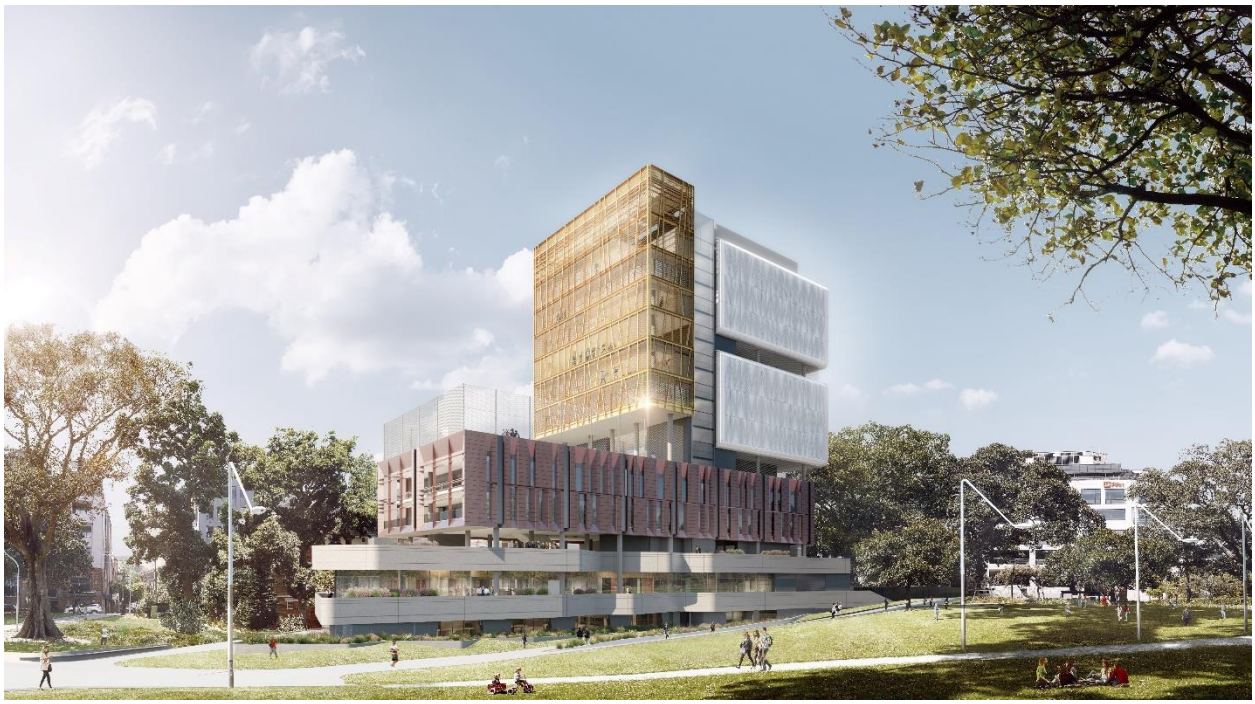
Picture 2 – RtS Proposal

Source: FJMT

Figure 3 – Park Facade

Picture 3 – SSD Proposal

Source: FJMT



Picture 4 – RtS Proposal

Source: FJMT

4. DEMOLITION AND EARLY WORKS ASSESSMENT

Pursuant to Clause 55 of the *Environmental Planning and Assessment Regulation 2000*, we request that SSD 7610 be amended to include demolition and early works. This section summarises the impacts and management of the early works.

4.1. CONSTRUCTION MANAGEMENT

Root Partnerships have prepared a Preliminary Construction Management Plan which is included at **Appendix C**. This outlines site management practices to be considered prior to the engagement of a suitably qualified Principal Contractor, and provides sufficient detail to support the early works. The subsections below are based on the PCMP.

Site Establishment

Prior to commencement of the early works, the Principal Contractor will complete a thorough Dilapidation Report for the site and the immediately adjoining / impacted properties and submit this to Root Partnerships for review / approval. Due to the heritage significance of the site, the Dilapidation Report must present an 'archival recording' of the site, with a particular focus on the areas accessed / comprised by the early works.

The Principal Contractor will prepare and submit for review / approval a site-specific Erosion and Sediment Control Plan (ESCP) which establishes the proposed measures to be implemented within the site to protect adjoining properties and downstream drainage systems. The ESCP will be designed, installed, monitored and maintained in accordance with the City of Sydney's Guidelines for Erosion and Sediment Control on Building Sites and Landcom's Managing Urban Stormwater: Soils and Construction.

Exclusion zones around existing trees to be retained will be demarcated by protection fencing, boarding and wraps, as per the Aboricultural Impact Assessment. The Principal Contractor will prepare and submit for review / approval a site-specific Construction Management Plan that demonstrates protection of trees and other identified vegetation including, but not limited to:

- Trees / vegetation to be retained are to be clearly marked, protected and maintained.
- Trees to be removed are inspected by a suitably qualified person for the presence of fauna immediately prior to their removal.
- Storage of stockpiles / equipment are to be outside of tree protection / vegetation areas.
- The spread / introduction of weeds is to be effectively controlled.

The Principal Contractor will prepare and submit for review / approval a site-specific Construction Traffic Management Plan to maintain safe vehicle and pedestrian traffic routes throughout the early works. Vehicle entry / exit access points off Chalmers and Cleveland Streets are to be managed by fulltime qualified traffic controllers, including an additional traffic controller/s to assist with pedestrians within Prince Alfred Park. Other management measures to be implemented during construction include, but are not limited to, the following:

- Construction vehicle transport routes.
- Construction site access locations and management measures.
- Construction personnel parking controls.
- Stage by stage construction traffic generation.
- Impacts of construction on adjoining traffic and pedestrian movements.
- Temporary signage around the site.
- Temporary pedestrian crossings.
- Temporary paths and ramps.
- Hoardings and site fencing.

Early works vehicle access is to be minimised during peak commuter periods along Chalmers and Cleveland Streets (6.00am to 9.00am and 3.00 pm to 7.00pm, Monday to Friday), with call-up / pre-arranged times strategies in place to avoid / minimise queuing of Early Works vehicles on approach roads to the site. Note, the Cleveland Street frontage includes a clearway (6.00am to 10.00am and 3.00pm to 7.00pm) and the Chalmers Street frontage includes a dedicated western bus lane (6.00am to 10.00am and 3.00pm to 7.00pm).

Pedestrian management during construction will require the development of a detailed strategy in consultation with the CBD Coordination Office (incorporating the City of Sydney, the Roads & Maritime Services and Transport for NSW).

Temporary early works service supplies for power, water, sewage and communications will be made.

Access

Emergency Vehicles and Personnel

Early works will not affect access for emergency vehicles and personnel during the course of the project, however in the event of a particular construction activity that does affect the access path:

- The Principal Contractor shall seek prior approval from Root Partnerships for temporary alternate access
- The Principal Contractor shall ensure the approved temporary alternate access is maintained at all times for emergency vehicles and personnel on and around the site

Construction Personnel

Access by the Principal Contractors, subcontractors, workers and visitors to the site will be via the Principal Contractor's site compound located on the western boundary. The Principal Contractor will need to consult with the RMS and the CBD Coordination office for construction vehicle deliveries and waste removal access and coordinate to avoid morning and afternoon peak traffic periods. Qualified traffic controllers will be in place to safely manage vehicle access to and from site. The Principal Contractor will seek approval and the relevant permits for access to Prince Alfred Park that is not in accordance with the approved Access Plan. All Principal Contractors personnel will be advised of the requirements of access as part of the site inductions prior to commencing early work on site.

General circulation from the Principal Contractor's site compound and the site will be in accordance with the approved Access Plan.

DoE and Visitors

At commencement of early works all DoE school operations will have ceased onsite and been relocated offsite. DoE school staff and students do not need to access the site once early works commences, however should DoE school staff need to access the site, arrangements will be made to suit the Principal Contractor's staging and entry requirements. The final access arrangement will be agreed with the contractor prior to the commencement of the early works.

The Principal Contractor will be responsible for the implementation and management of the approved Access Plan.

The Principal Contractor shall ensure suitable and safe access is maintained at all times around the site. The Principal Contractor will consult with Root Partnerships and DoE in the development of the Access Plan.

Parking

Parking for all Principal Contractor personnel on site is not provided. The Principal Contractor shall ensure that all persons inducted for the early works are advised of this 'No Parking' policy. It is envisaged that most early works personnel will commute to / from site on public transport.

Parking for Principle Contractor's trade vehicles will be in accordance with local parking bylaws and controls set out by relevant authorities, including the City of Sydney's Prince Alfred Park Plan of Management and Master Plan, which prohibits unauthorised vehicles from entering Prince Alfred Park at any time.

Waste Management

The Principal Contractor will engage a waste professional specialist to prepare and submit for review / approval a site-specific Construction Waste Management Plan (CWMP). The CWMP must:

- Be provided in a format appropriate to assist with the Waste Auditor Report, required as part of the future Green Star submission.
- Aim for a waste diversion target rate of 80%.
- Provide guidance for waste minimisation from Early Works activities.
- Identify and classify the likely waste streams to be generated by the Early Works.
- Describe the measures to be implemented to safely manage this waste.

The Principal Contractor shall remove all waste from site resulting from the early works. Waste shall be handled in a manner so as to confine the material completely, minimise dust / pollution emissions and disposed of to a standard is suitable for approval under the Environmental Planning and Assessment Act, 1979. Suitable areas on site are to be allocated to provide adequate space / access for:

- Separated storage of building materials.
- Separated storage of early works waste.
- Separated sorting of early works waste.
- Removal of early works waste for recycling, re-use or landfill.

Waste that is unable to be reused or recycled will be disposed of offsite at an EPA-approved waste management facility following classification. Hazardous waste will be correctly labelled, shall not be mixed with non-hazardous waste, securely contained and disposed of by a certified waste carrier for hazardous waste.

Prior to transporting waste materials to offsite facilities, it will be verified that the transporter / facility is licensed to handle the material it is designated to carry / receive.

Refer to the Construction Waste Management Plan (**Appendix D**) and Hazardous Materials Risk Assessment Report (**Appendix E**).

4.2. STORMWATER MANAGEMENT

Northrop engineers have provided sediment and erosion control plans which are included at **Appendix F.** Refer to drawing DA-C21.01 (Revision 3) for further details.

4.3. ARBORICULTURAL ASSESSMENT

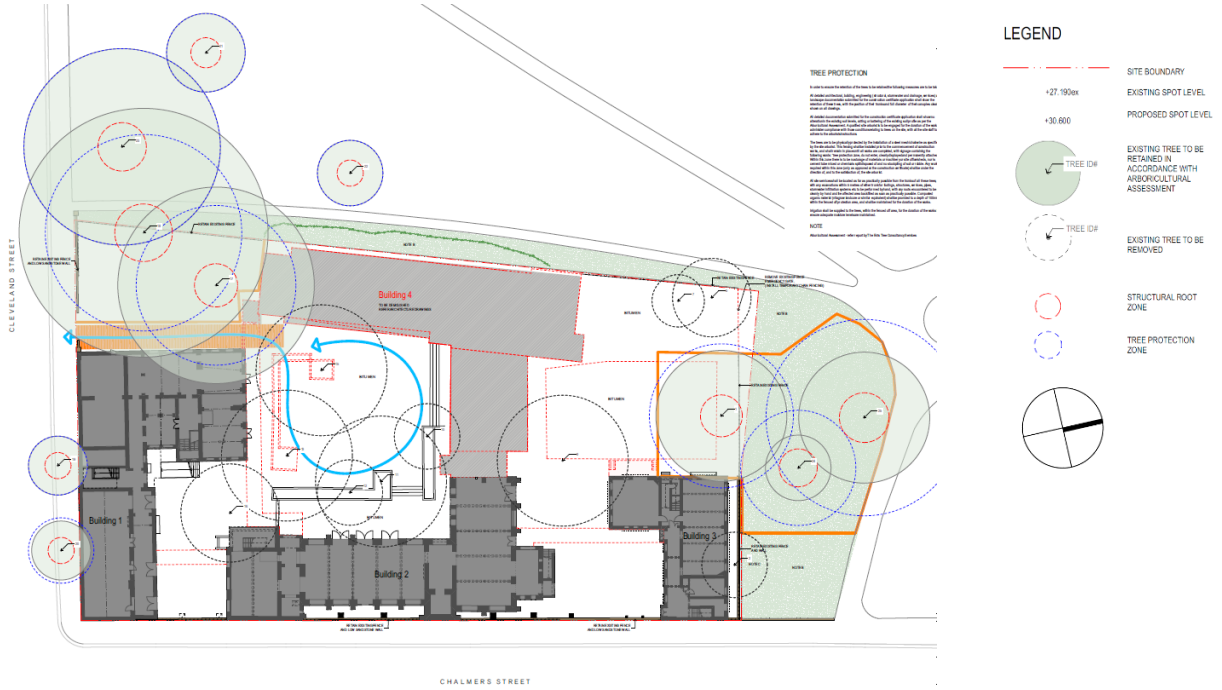
Some tree removal is required to facilitate the demolition of Building 4 and the construction of the new building. The proposal will remove 15 trees and retain 10 trees on and adjoining the site (see Figure 4).

An Arboricultural Assessment has been carried out by Ents Tree Consultancy to assess the existing trees on site and provide tree protection measures in accordance with AS4970 for each tree proposed to be retained during the construction process. Together with tree specific management measures, the Arboricultural report states that:

- An AQF Level 5 site arborist will need to sign off on tree protection measures prior to works commencing;
- Any works within 5m of trees to be retained will need to be supervised by an AQF Level 5 site arborist; and
- Monthly inspections and reporting will need to take place to ensure trees are being maintained adequately and for a compliance certificate to be issued.

Refer to the mitigation measures in the Arboricultural Report at **Appendix G**.

Figure 4 – Tree Removal Plan (FJMT)



4.4. ABORIGINAL HERITAGE

The site is within an Aboriginal ceremonial and hunting ground and contains Aboriginal significance values and archaeological potential. Comber Consulting has prepared an Aboriginal Archaeological Assessment. This has involved various research methods, including a site visit and Aboriginal consultation.

It was concluded that the study area: *"was an important camping and ceremonial ground for Aboriginal people prior to and post colonisation. It contained a creek and was close to swamps and wetlands which would have provided a wide range of resources. Historical information indicates that Aboriginal people continued camping in the area till at least 1850. It is highly likely that evidence of this occupation still remains beneath the school buildings."*

Accordingly, the following mitigation measures are proposed:

- Demolition of Building 4: The building can be demolished to the slab. In respect of removal of the slab, the geotechnical investigations indicate that the western side of the site, where Building 4 is located, contains approximately 1.5m of fill. Removal of the slab should be undertaken under the supervision of an archaeologist to ensure that the natural ground surface is not disturbed.
- In respect of removal of selected trees, excavation or ground disturbance should not occur to remove the trees. The trees should be cut and the stumps ground to existing ground level.
- Any excavation for temporary works which will include ground disturbance or excavation such as services connection or for construction of a turning bay should be monitored by a suitably qualified and experienced archaeologist to ensure that such disturbance is only within introduced fill and that the natural ground surface is not disturbed.
- If any previously undetected Aboriginal objects are unexpectedly uncovered all work must cease in the vicinity of that object whilst further advice is being sought from the consultant and the Department of Environment & Heritage.
- All employees, contractors and subcontractors engaged on this project should be provided with an induction outlining the significance of the site and their responsibilities under the National Parks & Wildlife Act.

Details of mitigation measures and the responsibilities of the main works contractor in developing the Construction Management Plan, is included within the Comber Aboriginal Archaeological Assessment at **Appendix H.**

4.5. EUROPEAN HERITAGE

A Heritage Impact Statement (HIS) has been prepared by Weir Phillips. The site is an item of local environmental heritage (I1477) per the Sydney LEP 2012 and is surrounded by various other items. The HIS assesses the effects of the works on the heritage item. In summary:

- The works support an appropriate use for the site. Ongoing education use is integral to its significance;
- Due to the way education delivery has changed, together with the forecasted capacity of the school, the proposal is seen as an innovative response that explores the heritage character of the existing buildings;
- The landscape elements proposed to be removed are not identified as significant in the Conservation Management Plan (2016); whereas the trees identified by the CMP (2016) as having historic significance are proposed to be retained;
- The removal of the walkways between buildings is encouraged by the CMP (2016) and the HIS;
- The internal alterations and removal of walls and services is supported;

Weir Phillips conclude:

> *"The proposed works will have no impact on the significance of, or on view corridors to/from, nearby heritage items or conservation areas. The removal of Building 4 and trees from the site will change the character of the setting of some nearby items. It is noted, however, that neither Building 4 or the trees to be removed are major or heritage significant elements in the setting of these items. Internal works will not be visible from these items/areas."*

Weir Phillips also advise that the works constitute more than a 'minor or inconsequential impact' on the local heritage item because they involve the removal of original fabric. The HIS includes a series of recommendations about how existing services and finishes should be removed to ensure only non-significant services and finishes are removed. Other measures include the archival recording of the site together with an Interpretation Strategy. For more detail regarding mitigation measures, refer to the Weir Phillips HIS at **Appendix I**.

4.6. ACOUSTIC IMPACTS

An Acoustic Assessment of early works noise and vibration was prepared by Acoustic Studio (**Appendix J**). The scope of works involved:

- Identifying noise sensitive receivers that will potentially be affected.
- Carry out noise surveys.
- Establish appropriate noise assessment criteria.
- Carry out an assessment to determine whether the nominated criteria can be achieved, and where applicable, provide relevant acoustic control measures to mitigate against impacts.

The report summarises that there may be times where noise resulting from the works are likely to exceed the criteria established by the report, especially when works are carried out closer to sensitive receivers.

Acoustic Studio provide a series of additional noise control measures to be implemented in the event an item of equipment exceeds the stated airborne noise criteria.

In terms of vibration, there are no expected impacts on surrounding areas resulting from the early works.

4.7. HAZMAT

Greencap prepared a Hazardous Materials Risk Assessment for the works package. A full list of mitigation measures to be implemented regarding the removal of hazardous materials is provided within **Appendix E**.

4.8. TRAFFIC IMPACTS

Positive Traffic has prepared an assessment of the potential impacts of the proposed works on access and traffic generation at the site. In summary:

- Overall, the potential traffic impacts of the early works are expected to be minimal.
- The two proposed vehicle access points take advantage of the existing driveways on Cleveland and Chalmers Streets. This provides appropriate flexibility in managing truck movements into and out of the site. These can be safely achieved and managed by traffic controllers.
- A turning path assessment was undertaken, assuming a rigid truck / trailer. The report confirms the truck turn around area is sufficient to accommodate such a vehicle, and that it will be able to enter and exit the site in a forward direction.
- It is anticipated that traffic generation will be low and confined to some worker vehicle movement to the site in the morning, and from the site in the afternoon. Over a typical day at peak operation, it is estimated that the demolition works would not generate more than 10 truck movements over a working day.

A series of mitigation measures are included in the Traffic Management Plan prepared by Positive Traffic (**Appendix K)**, which will guide the contractor in the preparation of a Construction Management Plan.

5. ASSESSMENT OF DESIGN AMENDMENTS

This section describes the proposed amendments in detail and assesses their environmental impact.

5.1. THE STUDIO/PODIUM

A key issue raised in the submissions is the relationship of the built form to the heritage buildings and the park. One level has been removed from the “Studio” and it has been reduced in length by approximately 2.5m. This has removed approximately 600m² from the studio, which has been achieved through a more efficient approach to internal planning and redistribution to the tower. The reduced Studio scale better relates to the heritage items. The Studio façade has been refined to provide a “quieter” relationship to the heritage facades. A neutral, darker colour is proposed to the masonry to assist in improving the relationship. The studio scale has also improved view impacts.

5.2. THE TOWER

5.2.1. Height

A maximum height limit of 9m applies to the site pursuant to Clause 4.3 of Sydney LEP 2012. The height of the proposed buildings to the roof line is 58.1m (measured from natural ground level on the park side). This has increased 1.6m from the SSD proposal of 56.5m. To achieve this, the overall height of the tower building has increased but is still within the overall height of the SEARs envelope of RL 92.00.

The twist to the tower forms has been removed, resulting in a slimmer built form when viewed from the north and the south. The Design Integrity Panel has reviewed the proposed changes and commented that design should maintain a consistent profile with the initial SSD scheme.

The increased height is part of design development and responds to the submissions received. In summary:

- The roof top outdoor learning/recreation area has moved from the southern tower to the northern tower above the Level 11 science labs.
- The height of the plant area has increased to accommodate increased plant requirements, however is still lower than the northern ‘verandah” at 56.5m. The increase in plant is a result of further acoustic testing which requires larger attenuation to mitigate against acoustic impacts.
- Increased acoustic attenuation is also the result of a change to the brief which now requires the inclusion of a full commercial kitchen, which includes exhaust and attenuation requirements.
- Plant has been re-located on the southern side of the tower with the profile of the tower to be modulated as the design progresses. Following discussions with the DIP to maintain the original relationship of the northern “verandah” roof form with the tower forms, the “verandah” has been raised by 1.6m. This is still well within the overall height of the concept design.

5.2.2. Floor Space Ratio

A maximum floor space ratio limit of 1.25:1 applies to the site pursuant to Clause 4.4 of Sydney LEP 2012. The floor space ratio of the proposed buildings on the site is 3.19:1 (inclusive of all existing buildings on the site). The revised GFA of the development is 18,153m². This has increased the FSR by 0.17:1 or 242.9m² from the SSD proposal of 3.02:1.

The increase in floor space is attributed to the following:

- A marginal increase and decrease in floor space across the project.
- Increase in the unenclosed covered area of 908.5m² GFA;
- Decrease in the fully enclosed covered area of 737.6m² GFA;

As a result, the overall efficiency of the fully enclosed covered area has improved with the modifications to the form and this has been offset by and increase to the external terrace areas which delivers an increase to overall student access to outdoor covered areas.

5.2.3. Summary Assessment

The justification provided in the originally submitted EIS with regard to the height and FSR exceedance remains valid. The proposal is considered to remain consistent with the relevant aims and objectives within the *Environmental Planning and Assessment Act 1979* and Sydney LEP 2012. The proposal is justified on the following environmental planning grounds:

- *It represents a logical and co-ordinated development of the site for school use.*
- *It will result in improvements to the physical appearance of the site through a carefully designed building that is modern and responsive to site context and its intended function.*
- *The architectural design of the new development provides a good quality built form outcome for the site and respects the significance of the heritage items.*
- *New development will not result in overlooking, overshadowing or privacy issues. View impacts are balanced with the significant social and economic impact of the development.*
- *Strict compliance is unreasonable as enrolment capacity needs to increase across the City of Sydney LGA to accommodate the growing population. Compliance would not meet the future school's accommodation requirements.*
- *Greater compliance could be achieved by reducing the scale of the development but this would undermine the visual quality of the design and the competitive design competition process that has been undertaken.*

There is no public benefit by maintaining the development standards. The public benefit comes from the additional levels in the tower for teaching and learning, recreation and open space play. The public benefit is the delivery of much needed education infrastructure for the growing inner Sydney area. There is also a future public benefit with potential shared community facilities.

The additional height and FSR will facilitate the delivery of critical education infrastructure for the community and growing population. Compliance in this circumstance would not improve the outcome. Rather, it would unreasonably impact on the ability of the State Government to deliver much needed education infrastructure. Strict compliance with clauses 4.3 and 4.4 is considered unreasonable and unnecessary in the circumstances because:

5.3. RELATIONSHIP TO THE PARK

The landscape terraces have been revised to respond more directly to the language of the adjacent swimming pool enclosure and landscape to address Safety by Design and buildability concerns. The terraces are now expressed as two ribbon-like forms which weave throughout the podium levels connecting the park with the upper levels of the Studio. This change is supported by the Design Integrity Panel (DIP).

The interface of the podium with the park, and hence its contribution to the landscape setting, has been improved by straightening the façade junctions to better respond to the park's geometries; by introducing off-form concrete, which responds to the materiality of the curving pathways in the park; and by further developing the podium edge at each level to mitigate the scale of the building when seen from the park.

Refer to Amended Landscape Plans provided at **Appendix L**.

5.4. VIEW IMPACT

Access to residential apartments has not been possible. Following discussions with DPE and Council, a view loss analysis has been undertaken for each apartment of the west facing units in each of the three residential flat buildings on Chalmers Street. We have assessed 120 views, identified as "window", "door" or "balcony".

The view sharing principles established in *Tenacity v Warringah Council (2004)* NSWLEC 140 assess view loss *negligible, minor, moderate, severe or devastating*. For the purposes of this assessment, we have adopted these same qualitative measures and related them to the proposal. We have also added a nil impact:

- *Nil* – no impact;
- *Negligible* – barely perceptible;

- *Minor* – minor loss of tree, sky and distant cityscape view;
- *Moderate* – some loss of tree, sky and distant cityscape view;
- *Severe* – high impact on tree, sky and distant cityscape view; and,
- *Devastating* – total loss of view.

Refer to **Appendix M** for the view images that were assessed. The vistas are from living rooms and balconies. The tables below summarise the impact for each of the 120 views with the three residential buildings. The total view loss is:

- 8% nil
- 18% negligible
- 43% minor
- 15% moderate
- 16% severe

We have assessed 69% of the view as nil to minor, 15% as moderate and 16% as severe. Most the view impact is from 188 Chalmers Street. We have assessed the impact as "severe" due to the loss of park and distant city views. However, views of the heritage items, sky and some district skyline will be maintained.

In a true Tenacity assessment, the total impact would be described as negligible to minor as there is no loss of water or iconic views, oblique northern views to the city CBD will not be impacted and balanced with the public benefit, the impact is reasonable.

The proposal exceeds the height and FSR development standards. The FSR standard makes no provision for the protection of private views. An objective of the height standard is the promotion of view sharing. The proposed height will impact on park views. However, no part of the view that will be lost is iconic. Overall, the impact of this proposal is assessed as negligible to minor.

A compliant height would not nearly achieve the accommodation requirements to meet the demand for schools in City of Sydney. The impact needs to weighed against the significant social benefit.

Table 1 – Building 1 – 204 Chalmers Street

Sheet No.	**View**	***Negligible***	***Minor***	***Moderate***	***Severe***	***Devastating***	***Nil***
5101	L5W1	Negligible					
5101	L5D1		Minor				
5102	L5D2		Minor				
5102	L5D3		Minor				
5103	L5W2			Moderate			
5104	L5D4		Minor				
5104	L5D5		Minor				
5105	L4W1	Negligible					
5105	L4D1			Moderate			
5106	L4D2		Minor				
5106	L4D3		Minor				
5107	L4W2			Moderate			
5108	L4D5		Minor				
5109	L3W1	Negligible					
5109	L3D1	Negligible					
5110	L3D2		Minor				
5110	L3D3		Minor				
5111	L3W2			Moderate			

5112	L3D4				Severe		
5112	L3D5			Moderate			
5113	L2W1	Negligible					
5113	L2D1	Negligible					
5114	L2D2	Negligible					
5114	L2D3	Negligible					
5115	L2W2			Moderate			
5116	L2D4			Moderate			
5116	L2D5			Moderate			
5117	L1W1	Negligible					
5117	L1D1	Negligible					
5118	L1D2	Negligible					
5118	L1D3	Negligible					
5119	L1W2		Minor				
5120	L1D4		Minor				
5120	L1D5		Minor				
Total Impact		**12**	**13**	**8**	**1**	**0**	**0**

Table 2 – Building 2 – 188 Chalmers Street

Sheet No.	**View**	***Negligible***	***Minor***	***Moderate***	***Severe***	***Devastating***	***Nil***
5201	L6W1				Severe		
5201	L6D1				Severe		
5202	L6D2				Severe		
5202	L6W2				Severe		
5203	L5D1				Severe		
5203	L5D2				Severe		
5204	L5D3				Severe		
5204	L5D4				Severe		
5205	L5D5				Severe		
5205	L5D6				Severe		
5206	L5D7				Severe		
5206	L5D8						
5207	L5D9			Moderate			
5208	L4D1				Severe		
5208	L4D2				Severe		
5209	L4D3				Severe		
5209	L4D4				Severe		
5210	L4D5				Severe		
5210	L4D6				Severe		
5211	L4D7			Moderate			
5211	L4D8			Moderate			
5212	L4D9				Severe		
Total Impact		**0**	**0**	**3**	**18**	**0**	**0**

Table 3 – Building 3 – 184 Chalmers Street

Sheet No.	View	*Negligible*	*Minor*	*Moderate*	*Severe*	*Devastating*	*Nil*
5301	L7W1		Minor				
5301	L7W2			Moderate			
5302	L7W3			Moderate			
5302	L7W4		Minor				
5303	L7B1		Minor				
5303	L7D1		Minor				
5304	L7W5		Minor				
5304	L7B2		Minor				
5305	L7D2						Nil
5306	L7W6						Nil
5306	L7W7		Minor				
5307	L7B3	Negligible					
5307	L7D3	Negligible					
5308	L6W1		Minor				
5308	L6W2			Moderate			
5309	L6W3			Moderate			
5309	L6W4		Minor				
5310	L6B1		Minor				
5310	L6D1		Minor				
5311	L6W5		Minor				
5311	L6B2		Minor				
5312	L6D2		Minor				
5313	L6W6	Negligible					
5313	L6W7		Minor				
5314	L6B3	Negligible					
5314	L6D3	Negligible					
5315	L5W1		Minor				
5315	L5W2		Minor				
5316	L5W3			Moderate			
5316	L5W4		Minor				
5317	L5B1		Minor				
5317	L5D1		Minor				
5318	L5W5		Minor				
5318	L5B2		Minor				
5319	L5D2		Minor				
5320	L5W6						Nil
5320	L5W7		Minor				
5321	L5B3	Negligible					
5321	L5D3	Negligible					
5322	L4W1		Minor				
5322	L4W2		Minor				
5323	L4W3		Minor				

5323	L4W4		Minor				
5324	L4B1		Minor				
5324	L4D1	Negligible					
5325	L4W5		Minor				
5325	L4B2		Minor				
5326	L4D2	Negligible					
5327	L4W6						Nil
5327	L4W7		Minor				
5328	L4B3						Nil
5328	L4D3						Nil
5329	L3W1			Moderate			
5329	L3W2			Moderate			
5330	L3W3		Minor				
5330	L3W4		Minor				
5331	L3B1		Minor				
5331	L3D1	Negligible					
5332	L3W5		Minor				
5332	L3B2		Minor				
5333	L3D2						Nil
5334	L3W6						Nil
5334	L3W7		Minor				
5335	L3B3						Nil
5335	L3D3						Nil
Total Impact		**10**	**38**	**7**	**0**	**0**	**10**

Table 4 – Summary of View Impacts

Building	***Nil***	***Negligible***	***Minor***	***Moderate***	***Severe***	***Devastating***	**Views**
1	0	12	13	8	1	0	34
2	0	0	0	3	18	0	21
3	10	10	38	7	0	0	65
Total Impact	**8%**	**18%**	**43%**	**15%**	**16%**	**0%**	**120**

5.5. HERITAGE

Weir Phillips has responded to the heritage issues raised in the submissions and assessed the proposed design changes.

5.5.1. Impact on Prince Alfred Park

These proposed design changes have reduced the visual impact in the following ways:

- The number of studio levels have been reduced from three to two, reducing the bulk and scale of the lower part of the building.
- The ‘twist’ of the tower has been removed, making it appear slenderer, particularly from the north and south.
- The building form at podium, studio and tower level has been simplified and the façade detailing and finishes further resolved to reduce complexity and improve buildability.
- The interface of the podium with the park has been improved by:

- straightening the façade junctions to better respond to the park's geometries;
- by introducing off-form concrete, which responds to the materiality of the curving pathways in the park; and,
- developing the podium edge at each level to mitigate the scale of the building when seen from the park.

- While the complexity of the detailing is reduced, sufficient variation is retained in detailing to help break up massing and scale.

5.5.2. Impact on the retained school buildings

As stated in the original HIS, the new building has been carefully located on the site in order that Buildings 1, 2 and 3 and the significant courtyards are retained. The upper storeys of the podium and the tower will be unavoidably visible in the backdrop of the heritage buildings. The tower will also appear as a major element on the western side of the north-eastern courtyard.

5.5.3. Impact of reuse and alterations to the existing heritage school buildings/grounds

City of Sydney Council acknowledge the opportunity to provide better circulation within the school and support the location of the proposed main entrance, except for the impact of the proposed new rooms at lower ground floor level on the intactness of the courtyard and the integrity of Building C. The plans have been amended as follows:

- The area to be enclosed beneath the raised courtyard is significantly reduced. The majority of the north-eastern courtyard at lower ground floor level is now retained as open space, reflecting its historic and aesthetic significance as a courtyard. The proposed infill is moved away from the southern elevation of Building 3, significantly lessening the impact on the southern elevation of Building 3.
- At street/ground level, the gap between the courtyard and the southern elevation of Building 3 is improved. It was previously proposed to glaze this gap; it will now be left open, improving the legibility of the building.
- At street/ground level, the gap between the courtyard and the northern elevation of Building 2 is reconfigured, improving the gap between the courtyard and the eastern end of the northern elevation of Building 1, which includes an original flight of stairs. While the gap is improved, the stairs will still not be as visible as they currently are. The impact is mitigated by the fact that stairs will remain visible from within the site at lower ground floor level and from the edges of the new courtyard. While visible in view corridors towards Building 2 from outside of the site and on approach along Chalmers Street from the north, the stairs are not a critical architectural element in being able to understand and appreciate the overall form and architectural style of the building.
- At street/ground level, the bridge between the street and the new building has been reshaped. This, combined with the reduction in the number of new rooms at lower ground floor level, improves the understanding of the open spaces of the original courtyard below.

Refer to the amended Heritage Impact Statement and additional information prepared regarding the submissions received submitted at **Appendix N** and **Appendix O** respectively.

5.6. OVERSHADOWING

In response to the design amendments, updated shadow impact drawings have been prepared by FJMT and are submitted with this report. In summary:

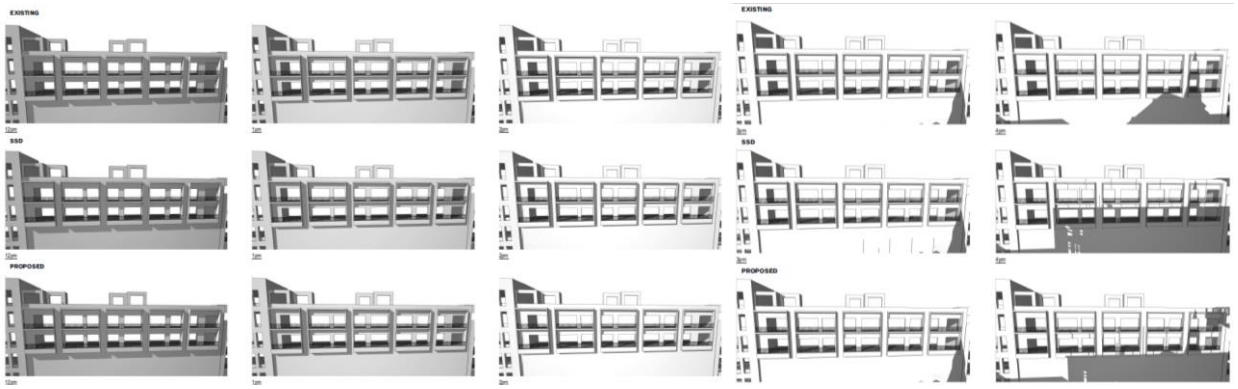
- The reduced height of the "Studio"/podium has resulted in a slight reduction in shadows west to the park between 9am and 10am.
- The proposal continues to comply with cl 6.19 of Sydney Local Environmental Plan 2012 (SLEP). The submitted shadow diagrams show the proposal does not result in any additional overshadowing of Prince Alfred Park at any time between 14 April and 31 August between 12.00–14.00 (beyond the shadow that would be cast by a wall with a 20 metre frontage height on the boundary between the park and the railway land).

- There is a slight increase in shadow impacts to the commercial property to the south of the site and internally to the site.
- Properties located on the south-eastern side of Cleveland Street are affected by passing shadow between 2pm and 4pm at mid-winter.

Elevational shadow diagrams have been prepared for the residential buildings on the eastern side of Chalmers Street:

- **188 Chalmers Street** – No change from existing scenario between 12pm-3pm; Reduction in shadow impact at 4pm compared with the originally submitted SSD (refer to Figure 5 below). In this regard, it is considered that there is no significant impact on residential apartments.

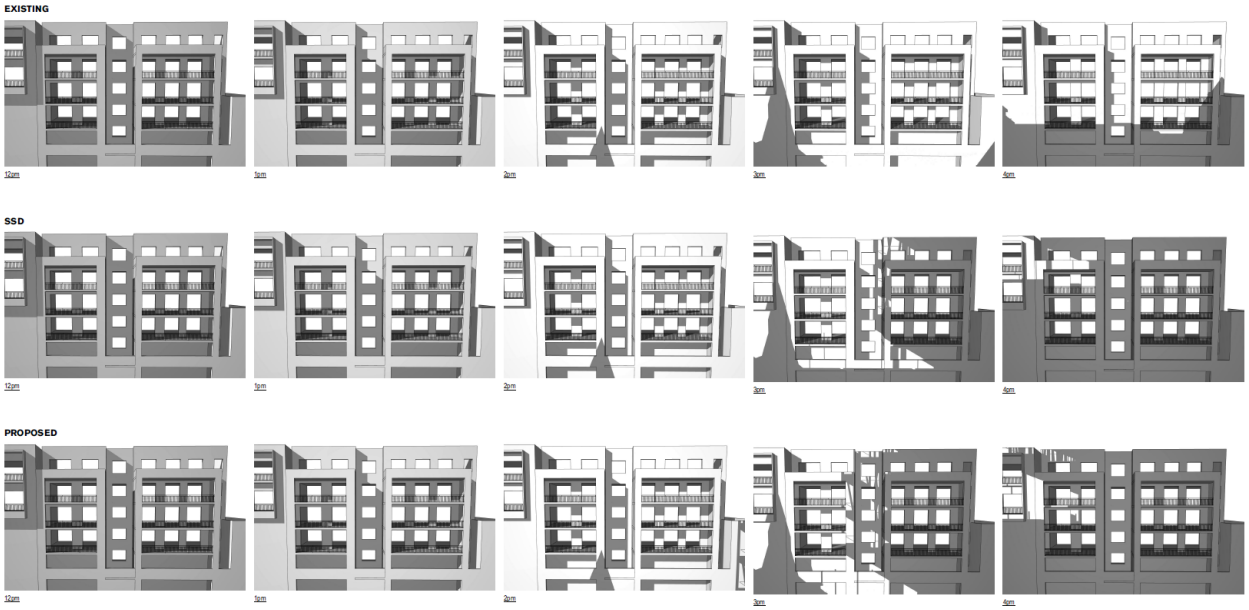
Figure 5 - 188 Chalmers Street – Shadow Impacts (Existing, SSD and Proposed)



Source: FJMT

- **204-214 Chalmers Street** - No change from existing scenario between12pm-2pm; Minor increase in shadow impact between 3pm and 4pm compared with the originally submitted SSD (refer to Figure 6 below).

Figure 6 – 204-214 Chalmers Street – Shadow Impacts (Existing, SSD and Proposed)



Source: FJMT

Both buildings continue to achieve a minimum of 2 hours solar access (between 12pm and 2pm) at mid-winter showing regard to the ADG. The design changes are appropriate in terms of overshadowing.

On balance, the proposed shadow impacts are not unreasonable or significant, and compliance is achieved with the LEP and ADG requirements. Refer to Solar Access Study diagrams submitted at **Appendix P**.

5.7. NOISE

Following additional acoustic testing, as well as the introduction of the full commercial kitchen, larger acoustic attenuation has been introduced to the design, particularly on the Tower.

The mechanical design is still ongoing and not all plant selections are finalised. Where the final selections are made, or vary from the current selections that have been assessed, Acoustic Studio will review the design to ensure equivalent selections are provided and/or noise controls are incorporated as required for the final design to ensure that the cumulative noise output from plant at the nearest affected receivers is within the allowable limits.

Refer to the Assessment of Operational Noise related to Noise Emissions from Mechanical Plant prepared by Acoustic Studio and submitted at **Appendix Q.**

External noise emissions from the proposed school (including the rooftop courts) have been assessed in accordance with the City of Sydney (CoS) Standard Conditions of Development Consent for "Noise – General". The assessment has been made based on typical worst-case noise levels over a 15-minute period. It concludes:

- During school hours (day period) – use of the Games Court is predicted to comply with the relevant criteria.
- Outside School hours (evening period) – it is predicted that there will be times where noise levels may marginally exceed the criteria marginal (up to 2dB in some octave bands).

Based on the predictions detailed above, the current mechanical design can comply with the relevant project specific criteria.

5.8. NATURAL VENTILATION

The EFSG design Guide Part 5.01 requires that natural ventilation is required to all classrooms for comfort in summer and to maintain a healthy indoor environment. The EFSG requirements have been designed for a traditional school layout, and are not always appropriate.

Design Principle 5 of the SEPP relates to amenity and states that "*Schools should include appropriate, efficient, stage and age appropriate indoor and outdoor learning and play spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage and service areas*."

DoE has requested that acoustic privacy take preference over this requirement to provide quiet teaching and learning spaces. The design team has had to meet the intent of this requirement (to provide energy efficient, comfortable spaces that minimise the build-up of CO2). To achieve this a fully air-conditioned system is to be provided with the option for an economy cycle (essentially mechanically ventilated without heating or cooling). The proposal involves the use of a chilled water cooling system with additional outside air to ensure that the spaces are comfortable and maintain a healthy indoor environment while meeting the competing EFSG requirements.

5.9. DESIGN INTEGRITY

The Design Integrity Panel (DIP) was reconvened on 1 and 8 September 2017 to review the development of the design since the SSD submission. The DIP generally endorsed the design changes relating to form, geometry and massing and recommended that the consultants continue with the design intent of the developed design with detailed resolution of the following issues.

- ***Materiality*** *– it is essential that the Studio façade is a masonry finish. The proposed terracotta is an acceptable alternative to brick and is considered a simpler and preferable alternative but jointing would need careful detailing.*

  Design Response – Terracotta cladding is the nominated material. Jointing detailing is a work in progress.

- ***Colour Palette*** *– The colour palette of the Studio façade, terraces and podium would benefit from a more subdued, darker, familial colour palette rather than as distinct and different elements. Light tone of the building is also a concern.*

Design Response – The final colour selection will be determined after colour palettes have been tested on site.

- ***Balustrade Material*** *- Terracotta capping to balustrade is an improvement over metal capping.*

  Design Response – Terracotta or a comparable tiled capping has been adopted.

- ***Entry Forecourt*** *- Entry forecourt multiple levels and spaces below need simplification/resolution.*

  Design Response – Revised entry forecourt design includes the simplification of spaces below and a removal of the glazed roof connecting the new with the heritage fabric.

- ***Simplified entry court*** *- with improved access ramp and broader more generous stairs is supported if threshold at boundary is broadened to welcome pedestrian flow from both directions it would be even better. This also provides more breathing space to heritage building and an improved ceiling condition below.*

  Design Response – Revised forecourt entry responds to comments.

- ***Accessibility -*** *Accessible routes through the school need to be accommodating to wheel chair needs and provide equitable access.*

  Design Response – Acknowledged. The access consultant is undertaking a complete review of the design to ensure equitable access.

- ***Acoustic Constraints -*** *Management of acoustic constraints, consideration of operating costs of air conditioning and sustainability objectives needs to be clearly demonstrated. For example, traffic noise levels from the adjoining streets need to be ameliorated, while optimising opportunities for natural ventilation. The technical performance of this aspect of the building considering competing imperatives, needs fine tuning.*

  Design Response – Due to the site location, the acoustic constraints of the site remove the possibility for natural ventilation. In order to meet the required acoustic amenity for the learning spaces the new campus will be fully air conditioned. An economy cycle mode is proposed for the new building to provide a more sustainable response when conditions are within an acceptable range. This departure from the Department's Educational Facilities Standards and Guidelines has been accepted.

- ***Rooftop Plant -*** *The forms, proportions and silhouette of the building are critically important on this highly prominent site- particularly the bulk of the roof top plant which is less modulated in the revised scheme. This needs to be addressed.*

  Design Response – Plant has been located on the southern side of the tower with the profile of the tower to be modulated as the design progresses. The height of the plant area has increased to accommodate increased plant requirements however is still lower than the northern 'verandah" at 56.5m. Following discussions with the DIP to maintain the original relationship of the northern "verandah" roof form with the tower forms, the "verandah" has been raised by 1.6m. This is still well within the overall height of the concept design.

- ***Games Court -*** *Height of court fence at 7m is excessive and should be reduced, in fact minimised to reduce impact.*

  Design Response – Court fence has been reduced.

- ***Noise Impacts*** *- Evaluation of the noise impact of the open basketball courts on the adjoining neighbours is required to ensure the usability of the courts is not unnecessarily compromised.*

  Design Response – Court surface treatments have been selected to reduce noise impacts. The acoustic engineer is evaluating the noise impacts from the open basketball courts. A Report has been provided as part of the Response to Submissions.

- ***Terrace Planting*** *- Layered planting on terraces would help mediate the transition of the park landscape up into the building.*

  Design Response – Layered planting on the terraces will be introduced into the design.

- ***Spandrels/ Jointing -*** *Consideration of precast for terraces spandrels or off form concrete affects language. Off form will appear more of a seamless ribbon compared to jointed and panellised pre-cast. Avoiding jointing if possible.*

  Design Response – Both options are under consideration, along with jointing implications.

- ***Curved Elements -*** *Where elements are shown as curved in plan (such as balustrade or spandrel panels) these elements must be genuinely curved not made up of straight, facetted panels.*

  Design Response – Noted.

- ***Palisade Fence -*** *Existing palisade fence replaced with simpler well-designed alternative with extended sandstone hob to manage surface water is supported. Drawings of the location, height and detailed design of this fence is required to fully explain proposal.*

  Design Response – Replacement fencing has been adopted in the design.

The issues raised by the DIP have been addressed and incorporated into the revised design. In moving forward, the DIP does not see need for further review of the design by the Panel. It is noted that if the façade treatment changes significantly from the façade presented in the current design, the design would need to be referred back to the DIP for further review.

6. OVERVIEW OF AGENCY SUBMISSIONS RECEIVED

The EIS for the Project was placed on public exhibition between 22 June 2017 and 7 August 2017. During this period, government agencies, City of Sydney Council, key infrastructure stakeholders and the community were invited to make written submissions on the Project to NSW DP&E.

A total of 16 submissions were received during the EIS exhibition period. Of these submissions, eight were provided by government agencies and Council. Four submissions were provided by community members against the project, in its current form. The remaining four submissions were made by community members in support or providing comment on the Project.

6.1. AGENCY SUBMISSIONS

Agency submissions were received from:

- The Department of Planning and Environment (DPE)
- City of Sydney Council (CoS)
- Transport for NSW (TfNSW)
- Roads and Maritime Services (RMS)
- Sydney Water (SW)
- Office of Environment and Heritage (OEH)
- Heritage Council of NSW
- NSW Environment Protection Authority (EPA)

A response to issues raised by the DPE and all other government agencies is provided in **Table 5** below.

6.2. PUBLIC SUBMISSIONS

The public submissions were reviewed and categorised according to key issues, being:

- Height and scale of the proposal.
- Overshadowing
- View Loss
- Traffic Impacts
- Loss of amenity to the Park
- Tree Removal

The key issues raised by the public generally aligned with those which were raised by the agencies. While the exact wording of the submission may not be captured in this RtS, the intent and the issues raised have been identified and addressed. The concerns raised by the public have been captured in Table 5 below.

Table 5 – Response to Agency Submissions

ISSUE	COMMENT	RESPONSE	REFER TO
Department of Planning and Environment			
Traffic and Access	Draft Operational Traffic Management Plan (TMP) required. To demonstrate safe access and exit from the school. Consideration of alternative student pick-up or drop-off location should this not be possible from Chalmers Street.	A Green Travel Plan Outline has been prepared by High Range Analytics and is submitted at Appendix R.	**Appendix R**
	The Swept Path Analysis should be updated to include the 'substation loading vehicle'.	Positive Traffic has provided a Swept Path Analysis for the longest vehicle that may require access to the carpark for waste, substation, maintenance or deliveries. As shown in the swept path diagram the site can successfully accommodate vehicular ingress and egress in a forward direction from Cleveland Street.	**Appendix S**
Green Travel Plan	The Green Travel Plan (GTP) submitted as part of the application should be revised to address the City of Sydney's comments.	A Green Travel Plan Outline has been prepared by High Range Analytics and is submitted at Appendix R**.**	**Appendix R**
General	An elevational shadow diagram should be provided for each neighbouring residential building.	Elevational shadow diagrams have been prepared and provided.	**Section 5.6** **Appendix P**
	Should construction be required outside of standard hours, this should be explained and justified.	Construction hours provided in the Preliminary Construction Management Plan are: • Monday to Friday: 7am to 6pm • Saturday: 7am to 5pm These construction hours are outside the City of Sydney standard hours of 7:30am-5:30pm and 7:30am-3:30pm. Limited vehicle movements in and out of the site will be	**Appendix C** and **Original SSD PCMP**

		permitted between peak traffic periods. As a result, productivity will be significantly reduced unless earlier and later working hours can be permitted. This is to permit earlier and later delivery movements. Adjusted construction hours are requested to facilitate the delivery of the project to meet the development timeframe and provide additional classroom spaces in 2020. Refer to the Preliminary Construction Management Plan.	
	Details of after school community uses to be provided incl. details of potential impacts (Safety and Noise).	School community uses are yet to be determined. It is anticipated that community uses will include sports facilities and performing arts, music and some general learning spaces that may be used for community groups and other uses. These areas can be accessed after hours through separate access points with no access to the school. Use of the rooftop court will be consistent with the proposed evening restrictions of finishing at 10pm. Refer to the operational noise and vibration impacts within **Appendix Q**.	**Appendix Q**
City of Sydney			
Heritage			
Height and Scale	Impact of scale and height of new building on retained school buildings, setting of the park and adjacent conservation areas.	One level has been removed from the “Studio”/podium level to assist in the reduction of the height and scale of the overall development.	**Appendix A**
Impact on Park	A slender and simpler form of the tower, along with a decrease of the storeys at the podium would reduce its visual impact to the park setting	The design has been amended to respond to the concerns raised about the massing and scale of the tower. These changes have reduced the visual impact and have been discussed in **Section 5.5**. While the complexity of the detailing is reduced, sufficient variation is retained in detailing to help break up massing	**Section 5.5** **Appendix N** and **Appendix O**

		and scale in response to the articulation of the heritage fabric in scale.	
Impact on the retained school buildings	Concerns over the impact of the scale of the proposal on the existing heritage buildings. Concerns over the separation between existing and proposed buildings. An ease of impact on the roofscape of the heritage buildings should be considered after the visual analysis.	The design of the new entrance forecourt has been revised to provide greater separation between Buildings 2 and 3. The forecourt geometry is realigned to respond to the geometry of the new landscaped terraces providing a clear delineation between the old and the new. As stated in the original HIS, the new building has been carefully located on the site in order that Buildings 1, 2 and 3 and the significant courtyards are retained; and in order to manage overshadowing issues. In this location, and given the size constraints of the site, the upper storeys of the podium (i.e. the studio) and the tower will be unavoidably visible in the backdrop of the heritage buildings on approach along Chalmers Street in either direction and when standing directly outside of the site on Chalmers Street. It is also acknowledged that the tower will also appear as a major element on the western side of the north-eastern courtyard.	**Section 5.5** **Appendix N** and **Appendix O**
Impact on adjacent heritage items and conservation area	Considered acceptable Curvilinear form at Ground and First Floors considered to mitigate the new buildings impacts on the heritage buildings. Suggested to extend this design language to level 2-5, in particular the four corners.	An updated Heritage Impact Statement (HIS) and addendum letter summarising the responses to the submissions received has been prepared and submitted with this report.	**Section 5.5** **Appendix N** and **Appendix O**
Reuse and alteration to existing heritage school buildings/grounds	Lower level rooms are considered to have adverse impact on the intactness of the courtyard and integrity of Building C. The glazing o the openings left by removal of the bridge walkways is not supported. Instead	An updated Heritage Impact Statement (HIS) and addendum letter summarising the responses to the submissions received has been prepared and submitted with this report.	**Section 5.5** **Appendix N** and **Appendix O**

	should be reinstated to original openings and joinery. Existing palisade fence not shown on plans. To be retained and incorporated into the design.		
Archaeological potential	Oviform drain identified as having considerable significance. Defers to NSW Heritage Branch and Sydney Water for consideration.	The Aboriginal Cultural Heritage Report prepared by Comber recommends that archaeological testing will be required. The recommendations of the report will be followed. As identified in the Archaeological Assessment Report, prepared by Casey Lowe, archaeological monitoring will be required during the excavation of the site with a particular focus on the areas of moderate significance. The recommendations of the report will be followed.	**Appendix T**
Urban Design and Design Excellence			
Overshadowing	Discrepancy between Shadow Impact Analysis page 18 and 19. Insufficient detail provided	An additional assessment of overshadowing impact has been provided at Section 5.6. In addition, addition revised solar access diagrams have been provided at **Appendix P**.	**Section 5.6** **Appendix P**
Bulk and Scale and View Loss	Concern over views across the school to the park and district from 184, 188 and 204-214 Chalmers Street. Concern over district view loss – attribute all view loss to the tower height.	Additional view impact analysis has been undertaken. Refer to **Section 5.4**.	**Section 5.4** **Appendix M**
Materiality and Facades	Insufficient details of proposal materials, finishes and colours of all components of the façade	Physical materials and samples board has been provided. The selected façade system for the Studio is a terracotta (or equivalent system such as ceramic) panelised system which is a highly durable and robust surface.	**Submitted to DPE as part of the RtS.**
Natural Ventilation	Concerns over provision of natural ventilation to classrooms.	The high traffic noise condition of the site precludes the inclusion of openable windows in order to maintain internal	**Appendix U**

		noise level criteria as outlined by the EFSG, DG11-Acoustics. To maintain acoustically appropriate learning spaces the new campus will be fully air conditioned. An economy cycle mode is proposed for the new building to provide a more sustainable response when conditions are within an acceptable range. The departure from the ESFG has been accepted by the DoE.	
Wind Impacts	Insufficient detail in Wind Report – “no certainty that wind impacts have been satisfactorily quantified”.	Supplementary advice has been prepared by CPP and confirms that the pedestrian wind environment would be expected to remain similar to the existing, and no immediate need for permanent mitigation measures is anticipated for this development. The proposed development projects above surrounding structures, and will therefore have some influence over flow conditions at the ground plane. Pedestrian areas in the public domain along Cleveland Street and Chalmers Street which may be affected by the building are likely to be used as thoroughfares rather than for long-term or stationary activities. The tower levels are setback from both Cleveland and Chalmers Streets by approximately 20m in each case. The tower levels are also setback approximately 5-10 metres from the western and northern site boundaries by landscape terraces descending to the lower level of the park. These setbacks will assist in minimising the influence of the structure at ground level. Refer to the originally submitted Wind Assessment prepared by CPP and the supplementary advice.	**Appendix U**

Lifts	Concerns over equity of access for mobility impaired users of the school if restricted lift usage is proposed for management purposes.	A vertical transport strategy has been developed to promote alternate circulation usage in addition to supplementary movement from three-off lifts. Of the three main lifts (Lift 1-3), three floors are being designated “Destination Floors” (in addition to the Ground Floor entrance). These floors are freely accessible via lifts for all students without the added requirement of swipe cards. In order to accommodate students with low and/or difficult mobility, non-destination floors are to be accessible via swipe card. As each student will have a swipe card for the building, students (and staff) in this category (overall 1-2% of the student body) will have swipe cards with the ability to: a) Call the lift from any floor; and b) Use the lift to access any floor. Details regarding the operational flow of the building is provided in the advice on lifts and equity of access prepared by Northrop. The Department of Education have also confirmed that approximately 1% of students at any one time (12pax) will require lift access therefore this is not envisaged to impact the current lifting advice.	**Appendix W**
Egress	Exit widths do not appear to comply with BCA requirements.	The fire egress strategy for the site has been reassessed and the fire/access stairs simplified to provide a clearer response to egress and way finding. The population of the basement has been limited to 800 pax and the egress widths have been sized accordingly. The proposal to facilitate egress to open spaces in the event of an emergency has been redesigned to provide 9m of egress width at Lower Ground and 4m of egress width at Ground.	**Appendix B**

		Everyday Access and Fire Egress Access arrangement plans have been provided at Appendix B.	
Weather Protection	Concerns over amenity of café and eating area at Level 1. Concern that there is no alternative internal area for any proportion of students at lunchtime.	The brief requirement for Covered Outdoor Area which can be used for Canteen seating in the ESFG is 200m² and is within a 45-degree rain shadow as demonstrated in **Appendix B**. The Level 1 terrace is substantially over the requirement. In times of inclement weather, alternative areas of the campus will also be available for recreation. These will include the Movement Studio, the Level 4 terrace and the open area in front of the Library on Ground Level which is directly connected to Level 1. This Ground Level area has been substantially opened up in order to provide additional area for recreation and movement when required.	**Appendix A** and **Appendix B**
Courtyards and interface with Heritage Buildings	New raised entry courtyard is supported. Concerns over separation between existing buildings and new building.	The relationship between the proposed new building and the existing heritage buildings within the internal courtyard has been improved to provide greater separation and openness between the buildings. These amendments ensure that as much as possible, the full extent of the heritage buildings are visible and are not compromised. The interface now reads as a more cohesive courtyard that flows naturally through the site.	**Appendix A** and **Appendix B**
Public Domain			
Pedestrian Crossings	Non-compliant with the City's current standards and pit lids are of an older style.	A Green Travel Plan Outline has been prepared by High Range Analytics and is submitted at Appendix R**.**	**Appendix R**
Civil Engineering	Concerns for the proposal against Flood Planning Levels. Specific concerns relate to: • Basement levels • Existing culvert • Diversion of flood path to park	Flood planning levels have generally been addressed on a portion of the site via bunding and flood walls on western and eastern and eastern boundaries. The flood planning levels have been defined by existing flood conditions plus minimum 500mm freeboard.	**Appendix Y**

		Eastern Boundary Entry (Chalmers Street) – 1% AEP Flood level + 500mm freeboard (FL 30.10 + 0.5m = **FPL 30.60**) = FPL achieved at RL 31 at top of stairs and ramp facilities. Western Boundary Entry – 1% AEP Flood level + 500mm freeboard (FL 27.00 + 0.5m = **FPL 27.50**) = Flood wall provided and Southern boundary – 1% AEP Flood level + 500mm freeboard (FL 31.00 + 0.5m = **FPL 31.50**) Carpark and driveway levels along Cleveland Street have yet to be full resolved and will be defined by site specific flood study which will test proposed development conditions and mitigation options. Northern Boundary (interface with Prince Alfred Park) – 1% AEP Flood level + 500mm freeboard (FL 27.25 + 0.5m = **FPL 27.75**). Flood mitigation to the north of the site can be addressed with a similar methodology to the western side of the site, with a low flood wall incorporated into the landscape and some local grade changes. This area is quite sensitive due to the local of the significant trees. The internal levels of the entrance to the site have been amended in the RtS to reflect required internal changes. Some additional level changes may also be required to the west of the site following more detailed verification of the flood model. Final FPLs will be defined by site specific flood study which will test proposed development conditions and mitigation options.	
Flooding	Concerns over diversion and impacts on Prince Alfred Park.	**Council Flood Study and Revision** The preparation of a site specific detailed flood assessment has commenced. The council model for the existing	**Appendix Y**

	Particular concerns for the northern side of the school. Risk to users of the park from inundation from diverted overland flow.	development was received and updated to updated incorporate existing overland flow paths through the site, and to include existing walls and obstructions along the northern and southern boundaries. Generally, updates resulted in minor changes to existing flood conditions. Flood elevations remain similar along all boundaries. A decrease in levels locally were observed at the low point in Chalmers Street and location of spill into the site. Councils existing modelled assumed no conveyance through the site. These simulations of the existing scenario were undertaken to reflect a more accurate and realistic interpretation of existing flood conditions for which to benchmark. **Flood Study (Developed Scenario)** A Preliminary Development Scenario to identify worst case flood extents has been developed using the City of Sydney Council's Flood Model Study. The preliminary out puts for the 1%AEP event (1in100 year ARI) have indicated that there are issues on Chalmers Street at the new forecourt entrance and to the north of the development. The initial study identified that the elevations on boundary are relatively consistent with the current as built situation, with the exception of the new entrance forecourt to Chalmers Street. The model was developed to reflect the 'developed scenario' – which blocked out the majority of the site and maintained the existing Sydney water culvert through the site representing similar conveyance capacity. The low height heritage sandstone wall behind the bus shelter to the north of the site was removed to simulate removal of an	

		obstruction to the flow path and to test potential spill through this location. This will be further investigated through more detailed modelling.
		
		A 600mm increase was calculated locally along Chalmers Street where water previously spilled through the site at the new entrance Forecourt. Generally, the increase in Chalmers Street was less than 300mm, however an increase of up to 85mm was also calculated in Pembroke Street.
		
		A drainage upgrade scenario was also run whereby trunk drainage infrastructure was upgraded in Chalmers Street and stormwater conveyed around the site. This simulation indicates that minor pit and pipe infrastructure upgrade alone will not be sufficient in reducing flood impacts around the site to adequate levels and that a major intervention would be required.
		
		Recommendations
		
		• Re-assess building entry levels and flood planning levels especially on the north side of the site where freeboard considerations have not been addressed.
		• Redefine overland flow paths within the adjacent park areas on the western and northern boundaries of the site. This will require earthworks and landscaping beyond the current site boundaries and require engagement with Council.
		  ○ Flood Hazard Requirements will have to be addressed with Council as they may wish to inform any option for conveyance through the Park.
		  ○ Existing overland flow paths exist have flood hazard is present council may wish to ensure to worsening of impact.
		  ○ Diverted overland flood path will need to be well defined, incorporate flood warning signage where necessary.	

		○ Risk to park users is not in major events (1%AEP) when people are unlikely to be using the Park. It will likely be in minor and more frequent storm events where risks to park users might change. • Consider major drainage upgrade within Chalmers street to increase capacity of the underground drainage system. This will require engagement with Council and Sydney Water as provision of flood mitigation will ideally require upgrades to both Sydney Water and Councils assets in Chalmers Street. • Northrop propose to test a couple of options for feasibility and performance in terms of flood mitigation and engage with Council **Council Requirements** • Detailed flood study and report in development • Preparation of feasible flood mitigation options with Prince Alfred Park have commenced and will involve consultation with Council • To reduce retaining walls and site specific response, significant drainage upgrades external to the site will be required to resolve what is a catchment scale issue. • Urban design and impacts to park users will be considered as part of flood mitigation response. Further actions will include continued liaison with the City of Sydney Council and Sydney Water to understand the effect of the development on the catchment. It is envisaged that this exercise will take a minimum of up to 2 months to resolve a satisfactory outcome which will minimise the flood impact on the surrounding context.	
Prince Alfred Park	• Detailed Flood Report required to examine the impact of the proposed development upon the park space including pedestrian use of pathways.	Refer to the above	**Appendix Y**

	• Minimise the effect of overland flow through Prince Alfred Park. • Consider alternate methods of protecting development from overland flow, particularly on the northern and western frontages. • Amend design to more clearly define public vs private uses. Take any private uses into the site boundaries. • Conflicts of interest of public space near entrances.		
Landscaping			
Park Interface	Concern over interface with Park and intensification of park use. Pathways commandeering substantial sections of the park.	The form of the landscaped terraces has been revised to respond more directly to the language of the adjacent swimming pool and to address Safety by Design and buildability concerns. There terraces are now expressed as two ribbon-like forms which weave throughout the podium levels connecting the park with the upper levels of the Studio.	**Appendix A**
Park Usage	Confirmation of any formal use agreements between the school and the City in terms of park facilities. Confirmation of whether the use of the park is required to meet the 10sqm per student open play space provided on site., as per the DoE guidelines. Details of pedestrian amenity and pedestrian upgrades to be provided	Notwithstanding discussions between DoE and Council, no formal agreement has been reached for shared facilities. However, both parties are committed to formalising agreement prior to occupation.	

Transport			
Traffic Generation	Comprehensive Transport Study required to detail all travel and access arrangements to the site. Not limited to car volume generation but all trips to and from the site (All modes). City requests details of how the proposal will reduce car usage for students and staff "towards zero". Refer to CoS letter for strategies that the proposal should align with.	A Green Travel Plan Outline has been prepared by High Range Analytics and is submitted at Appendix R. The key objectives of the Green Travel Plan are: • Reduce reliance on the car within the school community by encouraging walking, cycling and transit • Raise awareness of travel alternatives to ensure that, as a far as practical, students, staff and visitors make the most of the wealth of transport options available at this site • Reduce overall vehicle trips for journeys to and from the site. The Green Travel Plan will be finalised once the student catchment for the school is confirmed and in consultation with the school Principal.	**Appendix R**
Green Travel Plan/ Transport Access Guide	Provision of a green travel plan that includes the details included in the CoS letter	A Green Travel Plan Outline has been prepared by High Range Analytics and is submitted at Appendix R.	**Appendix R**
ESD			
GreenStar	Commitment to GreenStar is positive City seeking assurance that in achieving a 5 Star GreenStar rating the proponent will deliver a very energy and water smart building. Appendices missing from report regarding credits proposed to achieve the 5 Star rating.	The proposed development is targeting the incorporation of over 60 points into the building design, which equates to a 5 Star, Australian Excellence, Sustainability rating under the tool. A Green Star Scorecard document has been prepared to demonstrate the Green Star targets and is submitted with this report.	**Appendix Y**

Energy and Carbon	Commitment to how the proposal will achieve energy and carbon targets.	The proposal is targeting 10.4 points under the Green House Gas Emissions Credit which represents a building that achieves a minimum 30% reduction in energy use compared to a code compliant building and a 50% reduction in Greenhouse Gas Emission.	**Appendix U**
Water Efficiency	Little commitment to harvest and reuse roof water for the most effective end use – namely toilet flushing. Dual plumping reticulation for toilet flushing is a reasonable expectation.	Due to both the limited rooftop area and the desire to use these spaces for outdoor play and recreation the project is limited in the ability to harvest and reuse rainwater. To ensure that the project represents a water efficient design, it has targeted 4 of the 6 credit points available under the prescriptive potable water pathway in Green Star.	**Appendix U**
Displays and Interpretive signage re: solar energy	Signage is ineffective. Over-investment in signage to be avoided. Effort and resources should instead be allocated to practical water and energy saving measures.	The use of educational displays and signage was to be investigated further to determine if it resulted in educational or action based advantages. City of Sydney's concern is noted and over investment in this area will be avoided.	N/A
Office of Environment & Heritage			
Flood Risk Management	Further investigation and design studies in partnership with Sydney Water will be required once detailed design development options have been progressed. Overland flor constrains should be managed in detailed design.	Refer above. The preparation of a site specific detailed flood assessment has commenced. Further actions will include continued liaison with the City of Sydney Council and Sydney Water to understand the effect of the development on the catchment. It is envisaged that this exercise will take a minimum of up to 2 months to resolve a satisfactory outcome which will minimise the flood impact on the surrounding context.	**Appendix Y**
NSW Heritage Council			
Historic Heritage	Proposal appears to be inconsistent with CMP rankings of significance.	The site is not currently listed on the State Heritage Register (SHR). As the CMP was very recently prepared, no update has been proposed. Should the site be nominated for listing on the SHR, then the summary statement of significance provided by the CMP should be amended.	**Appendix O**

		The significance rankings provided in the CMP are generally agreed with. The CMP acknowledges that a larger building may need to be built upon the site and also the desirability of retaining an educational use. A number of the CMP polices, however, make little concession to the constraints arising out of the size of the site and the requirements of a modern school expected to accommodate 1,200 students. While it would be desirable to always comply with the policies of the CMP, some non-compliances are the inevitable result. The amended plans and HIS resolve some of the non-compliances presented by the original proposal and/or to provide additional justification for the action taken.	
Historic Archaeology	The Archaeological Assessment's consideration of significance is sufficient to demonstrate limited research potential. No comparative analysis of the site against NSW historical themes. Revised Archaeological research design and excavation methodology, included amended assessment of significance. Includes draft conditions of consent.	The Archaeological Assessment prepared by Casey and Lower (2016) remains valid and is submitted with this report. As identified in the report, archaeological monitoring will be required during the excavation of the site with a focus on the areas of moderate significance. The recommendations and mitigation measures of the report will be followed.	**Appendix T**
EPA			
Construction hours	Standard construction hours: • 7am – 6pm Mon to Fri • 8am – 1pm Sat • No work on Sunday and public holidays	Construction hours provided in the Preliminary Construction Management Plan are: • Monday to Friday: 7am to 6pm • Saturday: 7am to 5pm Adjusted construction hours are requested to facilitate the delivery of the project to meet the development timeframe	**Appendix C**

		and provide additional classroom spaces in 2020. Refer to the Preliminary Construction Management Plan.	

Operational noise and vibration impacts	• Comprehensive noise compliance monitoring of the rooftop courts outside school hours.
	• Restricting rooftop court to:
	  ○ Weeknights and 10pm
	  ○ No use before 8am
	  ○ No use on Saturday after 6pm
	  ○ No use on Sundays and public holidays
	• Provide quantitative noise impact assessment required in the SEARs and outline measures to minimise and mitigate impacts on surrounding properties – operation, mechanical plant etc.
	• Noise compliance monitoring of out of hours use of school facilities.
	• Grounds maintenance between 7.30am and 6pm.
	• Bell system and grounds maintenance powered equipment to be considered.
		External noise emissions from the proposed school (including the rooftop courts) have been assessed in accordance with the City of Sydney (CoS) Standard Conditions of Development Consent for "Noise – General". The assessment has been made based on typical worst case noise levels over a 15-minute period.
		It was concluded that:
		• During school hours (day period) – use of the Games Court is predicted to comply with the relevant criteria.
		• Outside School hours (evening period) – it is predicted that there will be times where noise levels may marginally exceed the criteria marginal (up to 2dB in some octave bands).
		Further detail is provided at **Appendix Q.**
			Section 5.7
			Appendix Q

RMS			
Pedestrian impacts	A significant number of vehicles and pedestrians will access the site at the start and end of the school day. An assessment of the pedestrian impacts should be undertaken to assess the capacity of pedestrian facilities in the vicinity of the site to cope with the increase in students.	The end of the school day does not coincide with the typical bump out period of general business/ commuters in the immediate area and thus would occur when spare capacity was available. It is noted that as is the case with all traffic signals within the Sydney CBD, pedestrian phases are called every single cycle of the signals whether pedestrians have pressed the button or not. Therefore, the additional pedestrians through this intersection would have no impact on existing capacity	**Appendix S**

		or operation of these signals as the pedestrian phases are included in every cycle.	
SIDRA Model	RMS requests the electronic copies of the SIDRA intersection modelling undertaken for the Cleveland/Chalmers Streets intersection be submitted.	Following lengthy discussion with the RMS, SIDRA modelling is being prepared based on certain assumptions and is subject to change following the definition of the school catchment. This has been discussed with the RMS.	
Mode share assumptions	Concerns surrounding the survey data underpinning the mode share assumptions for the development.	The purpose of the mode of transport surveys of other schools in the inner west area was to provide a cross sectional analysis of travel characteristics of a range of schools which had access to a range of public transport options. The statements above do not consider the availability of on-street parking of the other schools which is not available at the proposed school which in turn would deter travel by private vehicle mode. This deterrent is reflected in the adopted mode of travel assumptions in the traffic report. Of note, there are no traffic generation rates provided by the RMS for educational facilities in either the RTA Guide to Traffic Generating Facilities or Technical Direction 2013/04a. Overall the estimated mode of travel characteristics of the new students (not zoned within a short walking distance to the school) have been developed on a first principles basis and are considered reasonable. If the RMS are seeking sensitivity analysis of alternative mode shares of travel they should provide both the data to support alternative rates to that estimated in the traffic report for assessment.	**Appendix S**

Pick-up/drop off zone	Concern is raised with regard to the proposed use of the existing loading zone/No Parking zone on the eastern side of Chalmers Street for the provision of a 'pick-up/drop off' zone. As the kerbside drop off would be on the driver's side of vehicles, students on the passenger side of vehicles would exit into traffic lanes. This arrangement presents significant pedestrian road safety concerns.	The comments assume that children would exit the vehicle via the passenger side of the vehicle which would not be supported by parents on safety grounds. It is expected that parents would instruct their children to exit the vehicle via the driver's side directly to the adjacent footpath for their safety. As discussed with TfNSW / RMS the existing No Parking zone would provide an opportunity for parents to park and drop off / pick up children and extension of this No Parking zone to five parking spaces (which would still allow the movement of goods to adjacent businesses) would be sufficient to accommodate the potential demands by car of 105 students. That is, the five parking spaces would have the capacity to turn over each vehicle every 30 – 60 seconds for drop off and 60-120 seconds on pickup. The five space No Parking zone would therefore provide 300-600 parking opportunities for drop off and 150-300 parking opportunities for pick up. Thus, the available capacity would be more than sufficient for the conservatively estimated 105 students which may travel by car.	**Appendix S**
Pedestrian demand on Intersection	The proposed location of the main pedestrian gates opposite the 'pick-up/drop-off' location may encourage students to cross Chalmers Street mid-block directly, rather than using the existing crossing at the signalised intersection of Cleveland Street/Chalmers Street. The proposed pedestrian access gate locations should encourage students to use appropriate pedestrian facilities.	The issue of capacity of the Cleveland Street / Chalmers Street intersection capacity having regard to increases in pedestrian volumes has been previously addressed within the response prepared by Positive Traffic. As is the case with children alighting vehicles on the safer (driver) side of vehicles in this potential zone, it is unlikely that parents/school administration would support such behaviour. Further, the provision of the main pedestrian entrance to the school in Cleveland Street is not supported given the roads	**Appendix S**

	As the proposed 'pick-up/drop-off' zone is located opposite the school, this may generate significant pedestrian crossing demand at the Cleveland Street/Chalmers Street intersection. This should be considered in the intersection modelling.	higher order role in the network compared with Chalmers Street. It is recommended that as part of the Green Travel Plan appropriate access behaviour of the school is both highlighted and encouraged.	
	The proposed 'pick-up/drop-off' zone being on the departure of the signalised intersection of Cleveland Street/Chalmers Street has the potential to impact on bus operations and intersection efficiency. It is likely that parents/caregivers would queue at this location particularly at the end of the school day. If the capacity of the 'pick-up/drop off' zone is insufficient, this may lead to queuing through to the intersection of Cleveland Street/Chalmers Street and parking compliance issues on Chalmers Street. Once mode share assumptions and traffic generation has been verified, the capacity of the proposed 'pick-up/drop-off' zone should be assessed to demonstrate that it can cater for the demand associated with the ultimate student population of the school.	On the basis that parents utilising such a zone on the eastern side of Chalmers Street caused a negative impact on traffic conditions, the zone should be removed. The development of the school is not predicated on the zone being available but the installation of such a zone would be a benefit to those students who travel as part of their parent commuter trip to the city. Of note the afternoon school peak does not coincide with the road network peak. The mode share assumptions of the report have been validated having regard to other schools in the area, the availability of public transport, the low parking provision of the school and the parking restrictions in the immediate area.	**Appendix S**
Consultation	Surrounding businesses should be consulted in relation to the proposed 'pick-up/drop-off' zone and the loss of any allocated loading zones	Consultation will occur once the location of proposed pick-up/drop-off zones are confirmed.	**Appendix S**
Infrastructure Improvements	The EIS and traffic report should identify any infrastructure improvements proposed to mitigate potential safety and efficiency impacts as a result of the proposed development (i.e.	The traffic report confirms that no improvement to traffic infrastructure is necessary to accommodate the development. Further, the traffic report prepared by the approved Masterplan (assessed by the RMS) also	**Appendix S**

	upgrades to pedestrian facilities and measures to corral pedestrians to appropriate crossing locations).	confirmed that no road network infrastructure improvements are necessary.	
Bus Zones	The proposed use of existing public bus zones/lanes for school buses for special events may have adverse impacts on public bus services. Transport for NSW should be consulted in this regard.	As discussed and in principle agreed with representatives of TfNSW, the school would provide a No Stopping Zone as per those which have been installed in other areas of the Sydney CBD. These signs are installed below.  The two bus zones would be located adjacent to the existing bus zone / shelter some 100m north of the existing traffic signals.	**Appendix S**
SEPP (Infrastructure) 2007	The EIS and traffic report should address clauses 101 and 102 of ISEPP, and provide details on how these requirements have been considered and addressed.	Both the traffic report prepared for the approved masterplan and the development application have fully assessed and confirmed that *the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development*. On the matter of vehicular access, the site is landlocked by two classified roads and a park and as such vehicle access cannot be denied from at least one frontage road. The access from the classified road (Cleveland Street) only serves a small car parking area.	**Appendix S**

Service Vehicles	Details of the number of anticipated daily service vehicle movements associated with the operation of the school should be provided (including tuck-shop, grounds keeping, waste removal, stationery supplies and other deliveries).	Servicing is expected to be limited to waste by a Medium Rigid Truck and food deliveries / toilet servicing by vans utilising the small existing car park. Turning path analysis confirms there is sufficient manoeuvring area for a waste vehicle to enter and leave in a forward direction after accessing the loading dock space. In regard to the frequency this number is not known but for example waste servicing is expected to occur outside school operating periods and this could form a condition of consent.	**Appendix S**
Vehicle Access	The proposed vehicular access shall allow all vehicles to be accommodated on site before being required to stop. Any security gate will need to be recessed such that the largest vehicle can be contained wholly on site before being required to stop in order to prevent queueing onto the footpath of Cleveland Street.	The gate to the small car park off Cleveland Street would remain for deliveries and only close after hours when deliveries do not occur. As discussed with TfNSW / RMS the location of the gate would be recessed into the driveway to the southern edge of the car park aisle and would swing towards the building. This position would allow up to a MRV to wait inside the property in the event the gate was closed.	**Appendix S**
Swept Paths	The swept path of the longest vehicle (including garbage trucks, maintenance and delivery vehicles) entering and exiting the subject site, as well as manoeuvrability through the site to loading areas, is to be in accordance with Austroads requirements. The vehicle swept path plan provided does not show detail of the vehicle crossover on Cleveland Street.	The turn path presented in Appendix B of the report needs to include the driveway 'wings' either side of accommodate the turn path as shown below:	**Appendix S**
Car park pedestrian safety	It is noted that service vehicles will undertake reverse movements in the general car parking areas. Pedestrian facilities should be provided	The small car park will only include one visitor spaces with the remaining spaces staff. All waste servicing would occur outside school operating periods and should be considered	**Appendix S**

	within car parking areas to provide safe passage for pedestrians to the school from car parking spaces to eliminate potential pedestrian conflicts with heavy vehicles as far as practical (particularly for pedestrians with a mobility impairment).	as a condition of consent. The small length to reverse does not warrant a separate pathway in an area only access by staff and the occasional visitor.	
Parking	Parking provision should be in accordance with Council's requirements and AS2890.1- 2004, AS2890.6-2009 and A52890.2 — 2002 for heavy vehicle usage.	As confirmed in the traffic report the car park design complies with the requirements of AS2890.1 and the assessment of the turning path has been based on the expected largest vehicle to access the site as per the requirements of AS2890.2.	**Appendix S**
Accessible parking	Consideration should be given to whether the one on-site accessible car parking space proposed will be sufficient for a school accommodating up to 1,200 students and up to 100 staff. This is likely to be inadequate.	The site is located a short walking distance to Australians largest rail station, future light rail, local / regional bus routes and has a surrounding road network heavily protected with parking restrictions. It is expected the combination of significant public transport options and protection from all day parking will result in significantly high levels of public transport use. Travel by private vehicle would be minimal.	**Appendix S**
TfNSW			
Proposed School Operation	Prepare a Transport and Pedestrian Management Plan in consultation with the Sydney Coordination Office within TfNSW, RMS and the CoS. Must include the following: • Proposed pick-up and drop off sites for coaches during the hours of bus lanes operating along Chalmers Street; • Proposed drop off/pick up zones in the vicinity of the school. Traffic surveys of similar sites required to justify the proposed drop off/pick up zones is adequate to cater to the estimated movement demands; and	Some of the information regarding the operational characteristics of the school are unknown and should form a condition of consent. The pedestrian surveys described in the RMS submission response would go some way in populating the TPMP report. Overall again it should form a condition of consent. The submitted Green Travel Plan includes both upfront and ongoing management requirements for implementation of the plan.	**Appendix S**

	• Detailed pedestrian analysis – consideration of management measures such as staggered start and finish times to ensure safe and efficient access to and from the school.		
Green Travel Plan	Green Travel Plan to be prepared in consultation with the Sydney Coordination Office within TfNSW.	A Green Travel Plan Outline has been prepared by High Range Analytics and is submitted at Appendix R.	**Appendix R**
Construction and Traffic Pedestrian Management Plan	A condition of consent is proposed regarding a requirement for a Construction Pedestrian and Traffic Management Plan (CTMP) be prepared prior to construction and in consultation with the Sydney Coordination Office within TfNSW.	Noted. Can be conditioned. A CPTMP is to be prepared with regard to the items raised in the TfNSW letter. Must take into consideration the other major construction projects set to occur in the area including Sydney Lightrail and the Sydney Metro.	**Appendix S**
Travel Survey Results	Table 4 of the traffic report to be reviewed for accuracy in accordance with TfNSW comments.	The error in motorcycle proportion of JJ Cahill School is noted and the corrected tables are provided in Appendix S.	**Appendix S**
Sydney Water			
Water	Based on the WSAA Code, the proposed development would require frontage to a 200mm main. The site is currently fronted by 100-150mm reticulation water mains. Upsizing of the 150mm main on the southern side of Cleveland Street between Pitt and Chalmers Streets is required.	The preferred stormwater diversion option provided at **Appendix X** is due to the extreme risks associated with diversion around the site. The external diversion will cause significant disruption to traffic and public transport on Chalmers Street and Cleveland Street. It is the lowest risk option and least invasive to surrounding assets to the site including the roads and parks.	**Appendix X**
Waste Water	A pumped wastewater solution with appropriately sized storage is required due to the ground levels of the proposed development and the potential for wasterwater surcharge with a direct gravity connection.	As per above.	**Appendix X**

Section 73 Compliance Certificate	Required – proponent requested to make an early application for a S73 Certificate due to potential works required.	Stormwater concept is still being resolved with Sydney Water. We recommend a condition of consent for stormwater concept to be resolved via Section 73 certification.	N/A

7. CONCLUSION

This Report has considered the responses received from DPE, agencies and the community during the exhibition of SSDA 7610 for the development of the Inner Sydney High School. The proposal has been refined, where appropriate, to respond to comments raised by all stakeholders. The EIS and the RtS confirm that the there are no significant adverse impacts and the proposal should be approved.

The proposal is considered appropriate for the location and should be supported by the Minister for the following reasons:

- It has been prepared having regard to the objectives of *SLEP 2012* and the works are permissible with consent.
- It has been prepared having regard to the aims and objectives of the controls for the site.
- It is suitable for the site as evidenced by the site analysis and various site investigations, including geotechnical, site contamination, flora and fauna and heritage.
- It does not have any significant or unreasonable impacts on adjoining or surrounding properties or the public domain in terms of traffic, social and environmental impacts.
- Subject to the various mitigation measures recommended by the specialist consultants, it does not have any unacceptable impacts on adjoining or surrounding properties or the public domain in terms of traffic, heritage, social and environmental impacts.
- The site is well serviced by public transport and walking and cycling routes. The proposal encourages non-private vehicles options to access the site. It provides bicycle parking spaces to encourage cycling to and from the site.
- The proposal continues to exhibit design excellence and has been reviewed and endorsed the DIP.
- The proposed landscaped terraces better integrate the proposed podium with Prince Alfred Park. The connectivity between the school and the park is one of its outstanding features.
- It will result in a high quality educational environment for staff and students through:
  - Providing indoor and outdoor recreation and open space for students;
  - Enabling an excellent academic programme;
  - Supporting a fulfilling and diverse extra-curricular experience;
  - Create an inclusive, supportive and secure pastoral environment; and
  - Developing efficient, effective, expressive and environmentally sustainable facilities.
- It will contribute positively to energy efficiency and environmental sustainability. The design has adopted and incorporated many ESD features to reduce energy consumption during the life of the proposed development.

In summary, the development warrants the support of the Minister and we therefore recommend that approval be granted to proposed development, subject to conditions.

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APPENDIX A AMENDED ARCHITECTURAL PLANS

APPENDIX B RTS DESIGN REPORT

APPENDIX C EARLY WORKS – PRELIMINARY CONSTRUCTION MANAGEMENT PLAN

APPENDIX D EARLY WORKS – WASTE MANAGEMENT PLAN

APPENDIX E EARLY WORKS – HAZARDOUS MATERIALS RISK ASSESSMENT REPORT

APPENDIX F EARLY WORKS – CIVIL PLANS

APPENDIX G EARLY WORKS – ARBORICULTURAL ASSESSMENT

APPENDIX H EARLY WORKS – ABORIGINAL ARCHAEOLOGICAL ASSESSMENT

APPENDIX I EARLY WORKS – HERITAGE IMPACT STATEMENT

APPENDIX J EARLY WORKS – ACOUSTIC REPORT

APPENDIX K EARLY WORKS – TRAFFIC MANAGEMENT PLAN

APPENDIX L AMENDED LANDSCAPE PLANS

APPENDIX M REVISED VIEW IMPACT ANALYSIS

APPENDIX N AMENDED HERITAGE IMPACT STATEMENT

APPENDIX O RTS RESPONSE– HERITAGE IMPACTS

APPENDIX P SOLAR ACCESS STUDY

APPENDIX Q ADDENDUM ACOUSTIC ADVICE

APPENDIX R GREEN TRAVEL PLAN OUTLINE

APPENDIX S RESPONSE TO SUBMISSIONS - TRAFFIC AND TRANSPORT IMPACTS

APPENDIX T ARCHAEOLOGY ASSESSMENT

APPENDIX U ADDENDUM ESD ADVICE AND GREEN STAR TARGETS

APPENDIX V ADDENDUM WIND ADVICE

APPENDIX W ADDENDUM VERTICAL TRANSPORT ADVICE

APPENDIX X CIVIL STORMWATER CONCEPT

APPENDIX Y FLOOD PLANNING LEVELS

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