

Source: Aerial Image from Nearmap <http://www.nearmap.com.au/>



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Loreto Normanhurst is located within the suburb of Normanhurst on Sydney's Upper North Shore approximately 3km south of Hornsby and 25km north of Sydney CBD. The school is located in the local government area of Hornsby Shire Council, approximately 450m south of the Normanhurst Railway Station.

The site comprises the existing campus grounds of the Loreto Normanhurst school at 91 – 93 Pennant Hills Road, Normanhurst. The northern part of the site accommodates much of the school's existing built form, while the rear extent consists of the school's sporting fields and a portion of largely undeveloped land covered in remnant vegetation.

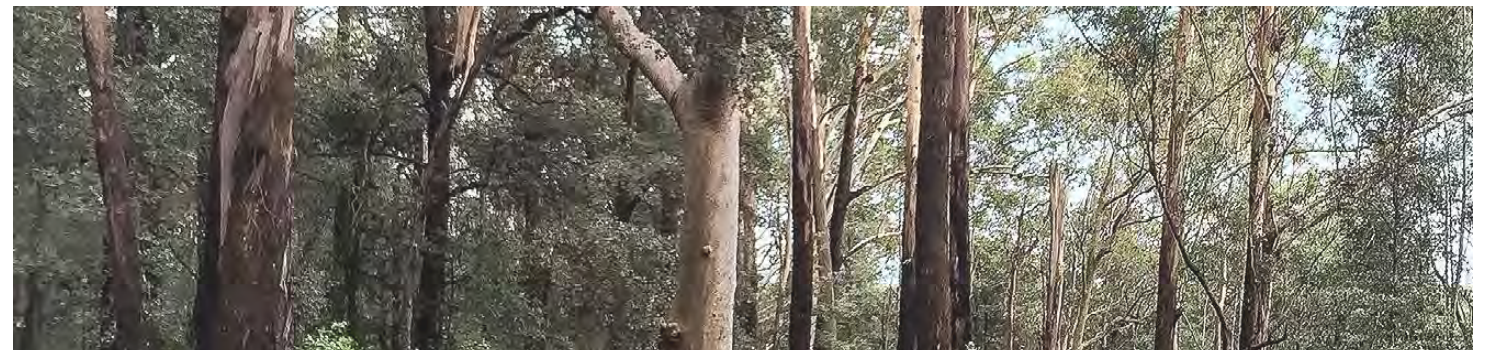
The campus itself is bound by Pennant Hills Road (to the north), Osborn Road (to the west) and Mount Pleasant Avenue (to the east). Detached dwellings on individual residential lots about the southern boundary of the site.

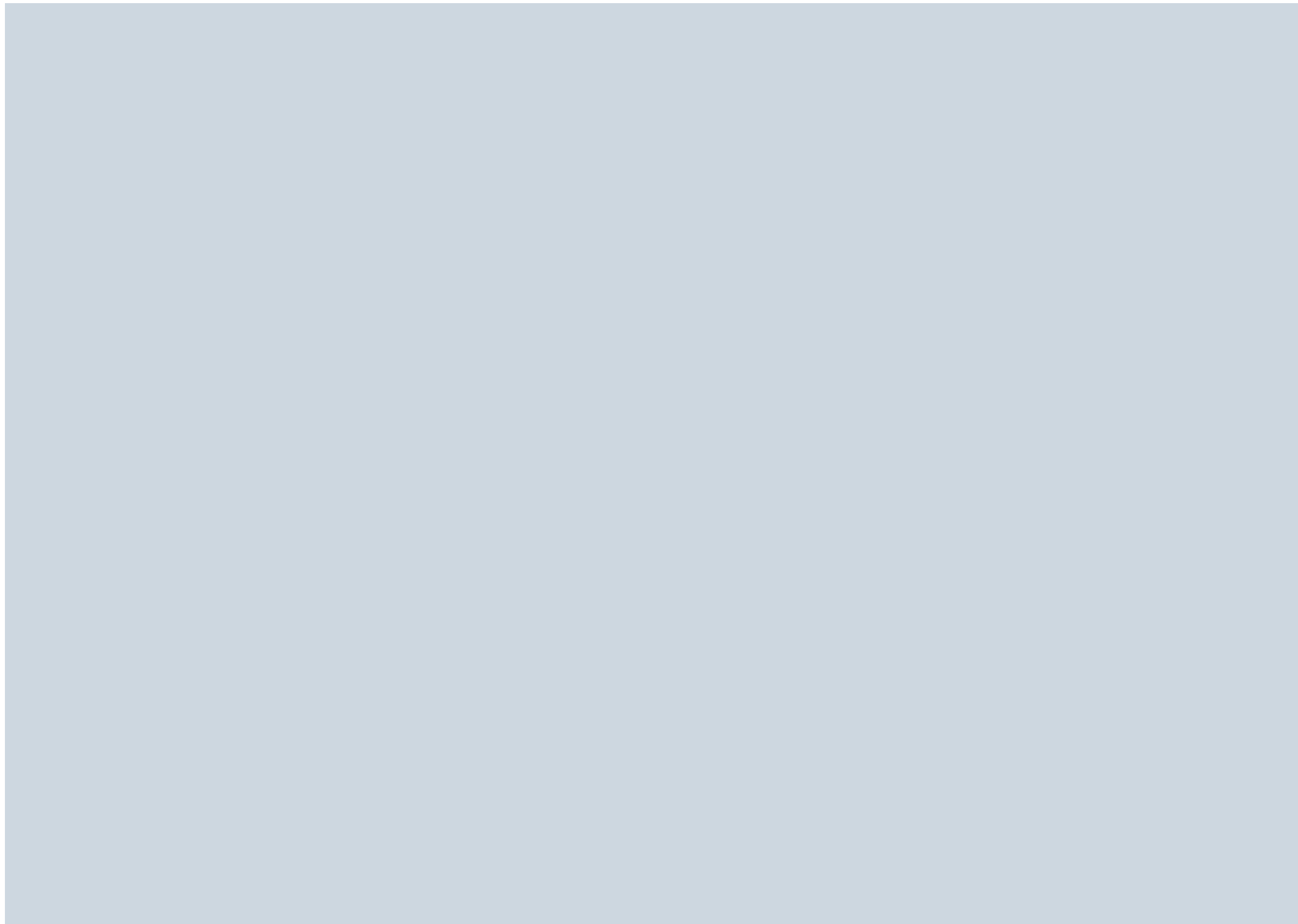
Road Networks

Loreto Normanhurst is bound to its north by Pennant Hills Road, a major arterial road connecting the M1 + M2 motorways. It is also bound to the west and east by two local roads, Osborn Road and Mount Pleasant Avenue. These neighbouring roads do not connect to through roads. Pennant Hills Road is the only means of egress from the area.

Northconnex

The subterranean 'Northconnex' link between the M1 and M2 motorways is projected to remove approximately 5,000 trucks off Pennant Hills Road. The Northconnex tunnel extends beneath the northern portion of the Loreto Normanhurst site. This infrastructural development will have a significant impact on the traffic surrounding the school. Northconnex is due for completion in 2020. Refer to Traffic Engineer's report for further details.







02 CONSTRAINTS + OPPORTUNITIES

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PLANNING CONSIDERATIONS

An EIS has been prepared by Ethos Urban which details planning framework and interpretation. The controls outlined below are included to show constraints that influenced the concept plan design approach.

STATE

SEPP (Educational Establishments & Child Care) 2017

In the case of inconsistency, the Education SEPP overrides any existing LEP. It allows for the expansion of school facilities on an existing school, irrespective of the zoning of the site and establishes the design quality principles for schools in NSW. A detailed response to the principles established by the SEPP is provided within this report.

Greater Sydney Region Plan

The North District Plan (March 2018) prepared as part of the Greater Sydney Region Plan ‘A Metropolis of Three Cities’, specifies growth within the region which contains Loreto Normanhurst.

- + Population - 11% growth (196,350 people) with a 20% increase in people aged 5-19 years
- + Jobs - 483,300 (20% of greater Sydney’s jobs)

The projected growth of the region will necessitate the provision of additional services and community infrastructure including schools. Loreto Normanhurst plans to accommodate an increasing number of students in response to the projected future growth of the district.

LOCAL - HORNSBY SHIRE COUNCIL

The site is subject to the following controls established by Hornsby Shire Council. However, this land is also subject to the provisions of the Education SEPP described above.

Land Use Zone

R2 - Residential. A number of non-residential uses are permitted within this zone with consent including educational establishments.

Height of Buildings

An 8.5m maximum height applies to the entirety of the site.

Setbacks

The DCP stipulates that setbacks should be compatible with adjacent development and complement the streetscape. Setbacks should also allow for the retention of significant landscape features and respect site constraints.

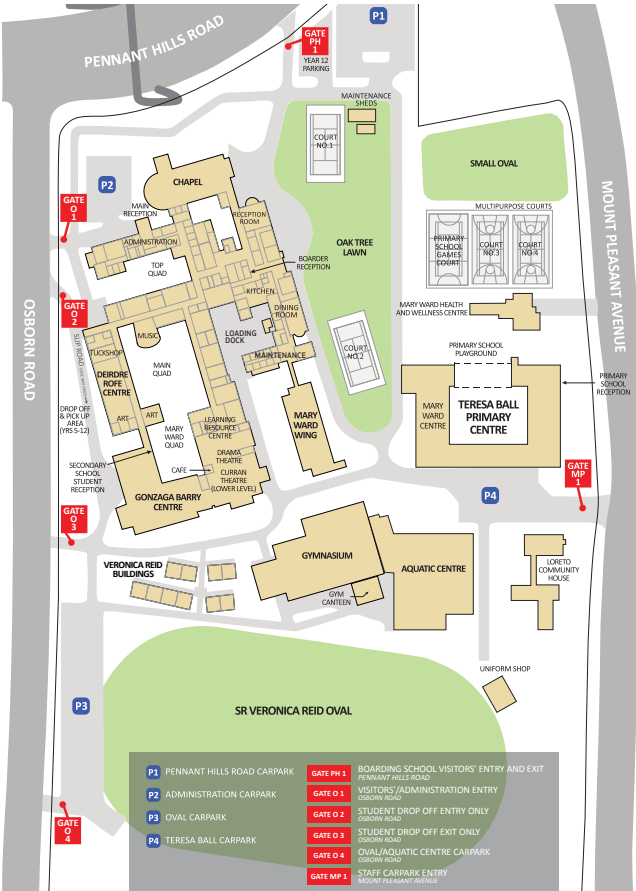
Biodiversity

The bushland located in the southern portion of the site is identified on the Biodiversity map. The LEP identifies desired outcomes for development and requires a 20m buffer zone to significant flora and fauna.

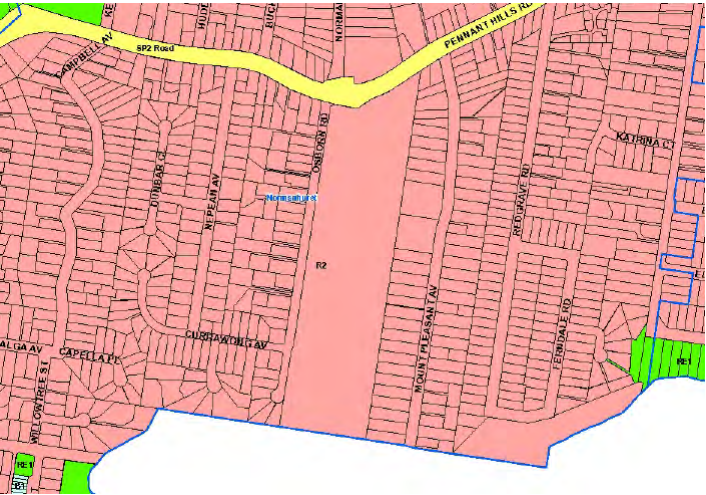
- + Development that provides for the conservation of biodiversity including threatened species and populations, endangered ecological communities, remnant indigenous trees, regionally and locally significant terrestrial and aquatic vegetation.
- + Development that maintains habitat for native wildlife and wildlife corridors to provide for the movement of fauna species.

Bushfire Prone Land

The site contains bush fire prone land. A buffer is required between the forest vegetation and development of certain uses. This limits the developable area for the school with regards to classrooms and boarding facilities among other uses.



Existing Loreto Normanhurst Site Map describing building uses
Source: Loreto Normanhurst, <http://www.loretonh.nsw.edu.au>



Zoning: R2 Residential
Source: HSC LEP 2013 <http://www.hornsby.nsw.gov.au>



Heritage Items
Source: HSC LEP 2013 <http://www.hornsby.nsw.gov.au>



Biodiversity: Blue Gum High Forest
Source: HSC LEP 2013 <http://www.hornsby.nsw.gov.au>



SEPP App. Land (non-complying)
Source: HSC LEP 2013 <http://www.hornsby.nsw.gov.au>



Height: 8.5m
Source: HSC LEP 2013 <http://www.hornsby.nsw.gov.au>



Bushfire Prone Land
Source: HSC LEP 2013 <http://www.hornsby.nsw.gov.au>

02 CONSTRAINTS + OPPORTUNITIES

HERITAGE ITEMS + BUILT FEATURES



EXISTING SITE CONDITIONS

The site contains a number of significant items. The 1897 building and associated grounds, gates and cemetery are listed as a heritage item in the Hornsby Shire Council LEP. The Loreto Convent (the original section and gate) and Loreto Convent Cemetery are also classified by the National Trust of Australia (NSW).

The bushland located in the southern portion of the site also contains an area classified as Blue Gum High Forest an endangered ecological community under the Environmental Protection and Biodiversity Conservation Act 1999 and NSW Threatened Species Act 1995. As such this section of the site must be managed in accordance with the relevant Act.

The 2047 master plan will not only maintain items of high significance but will enhance them to ensure their value and usefulness into the future. A CMP prepared for the school also identifies other items and their respective significance. Specialist consultant advice has been sought to provide advice with regards to the approach to such items.

Refer heritage specialist report for interpretation and response.



02 CONSTRAINTS + OPPORTUNITIES

ENVIRONMENT

Environment + The Bush

Due to the size of the site and the low scale of surrounding buildings, development within Loreto Normanhurst can be designed to take advantage of prevailing winds and solar access. The master plan positions development strategically to take advantage of these natural features where possible. One significant environmental limitation to development is the bush. While the bush is considered to be an excellent feature and opportunity for education within the site, the buffers for ecology protection and bushfire restrict uses within these zones and constrain or eliminate potential locations for development.

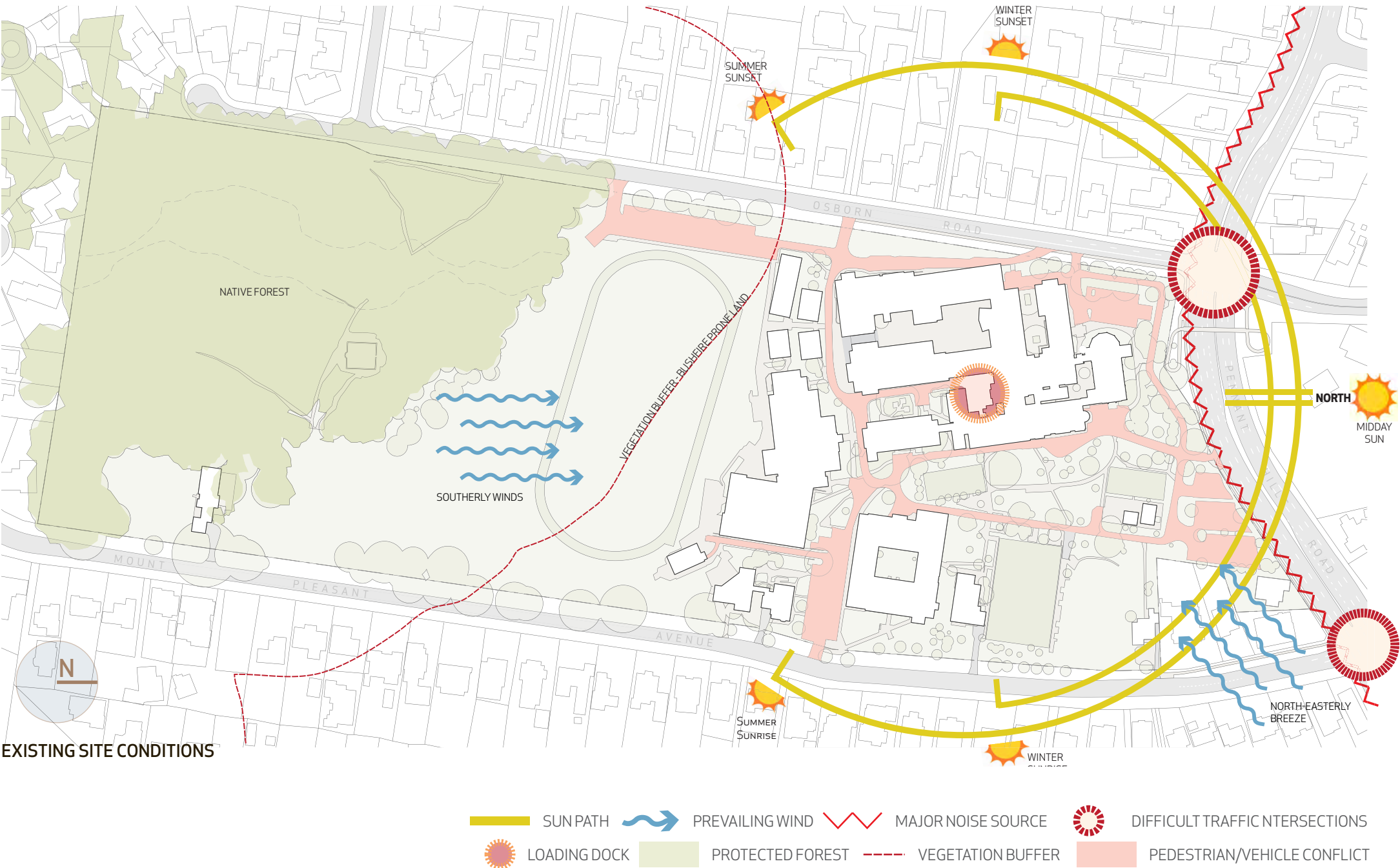
Noise Sources + Intersections

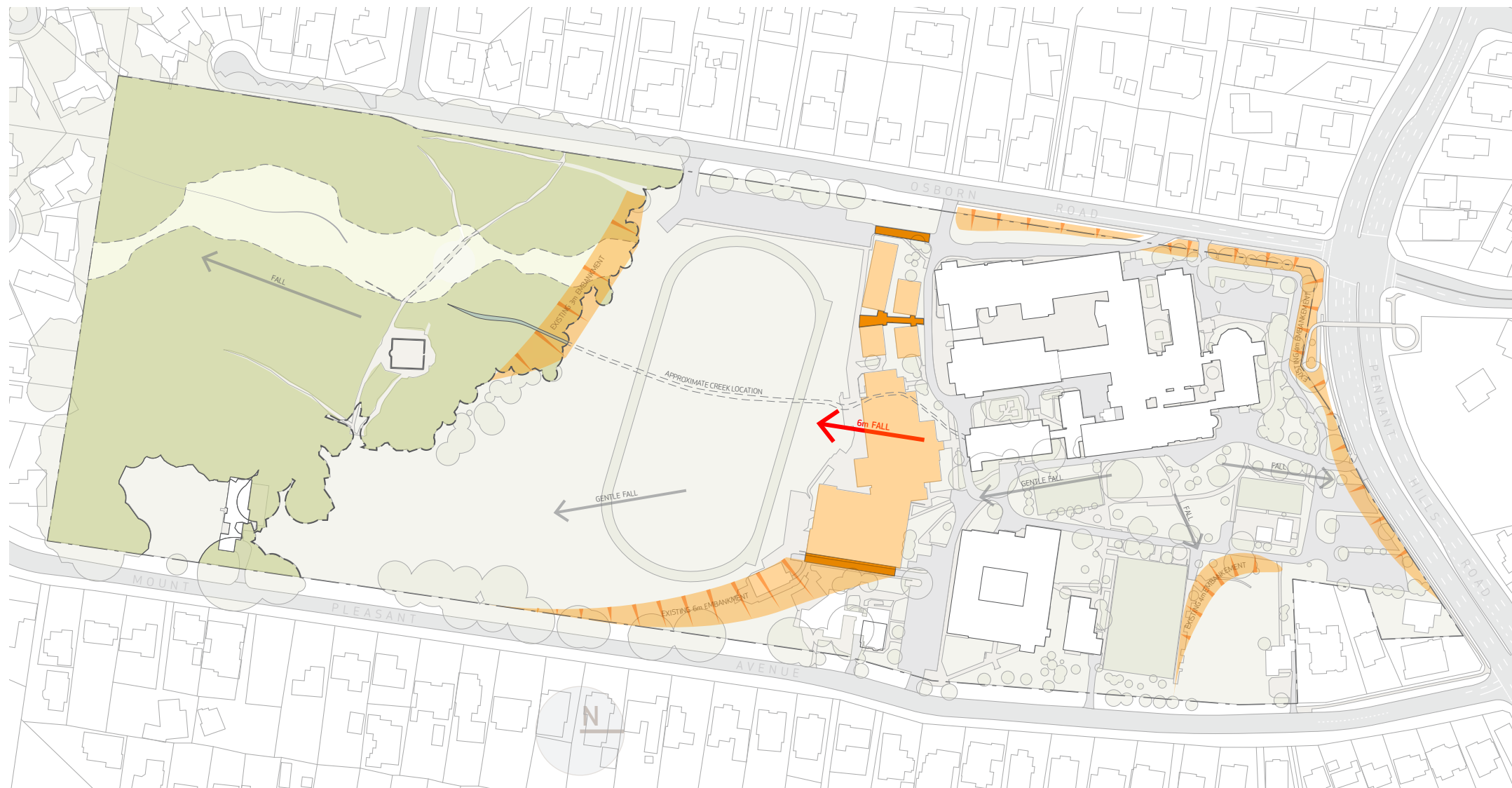
Pennant Hills Road with its two intersections adjacent to the site is a major source of intrusive noise. Boarding, a noise sensitive use, suffers in its current location and should be moved further from Pennant Hills Road. The noise impact from smaller roads is minor and could be effectively managed through architectural design. The quieter parts of the site are closer to the bushland but constrained by the associated bushfire and ecology buffers. The master plan balances these constraints to position noise sensitive uses within quieter parts of the site.

Vehicle + Pedestrian Movement Conflicts

Currently, vehicle use within the site is relatively unrestrained and presents conflicts with pedestrian use. The safe, unrestricted movement of students and teachers within the grounds is compromised by the centralised loading dock requiring frequent vehicle access. This current arrangement results in conflicts between vehicles and pedestrians and constrains the usefulness of the outdoor spaces within the site.

The master plan will alleviate conflicts by concentrating vehicular uses to the periphery of the site and prioritising pedestrian movement within the site.





EXISTING SITE CONDITIONS

Embankments

The site is currently divided into two main zones: the upper level containing teaching spaces, administration and accommodation; and the lower level containing sports facilities, playing fields and bushland. These two zones are separated by a steep embankment. This embankment is currently characterised by a largely impenetrable wall of development. The master plan will break down this barrier by creating multiple circulation routes through to the lower part of the site as well as sight-lines at ground level, visually reconnecting the two portions of the school.

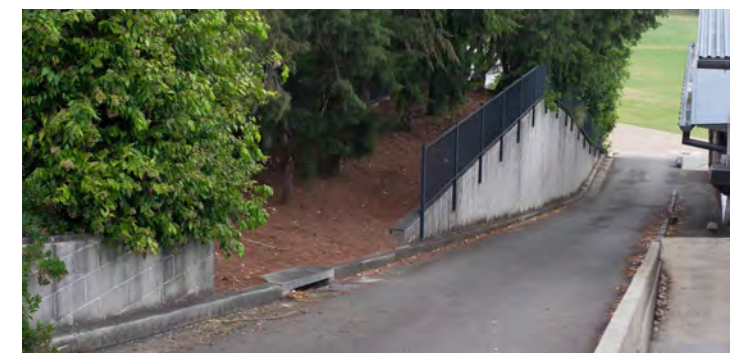
Topography

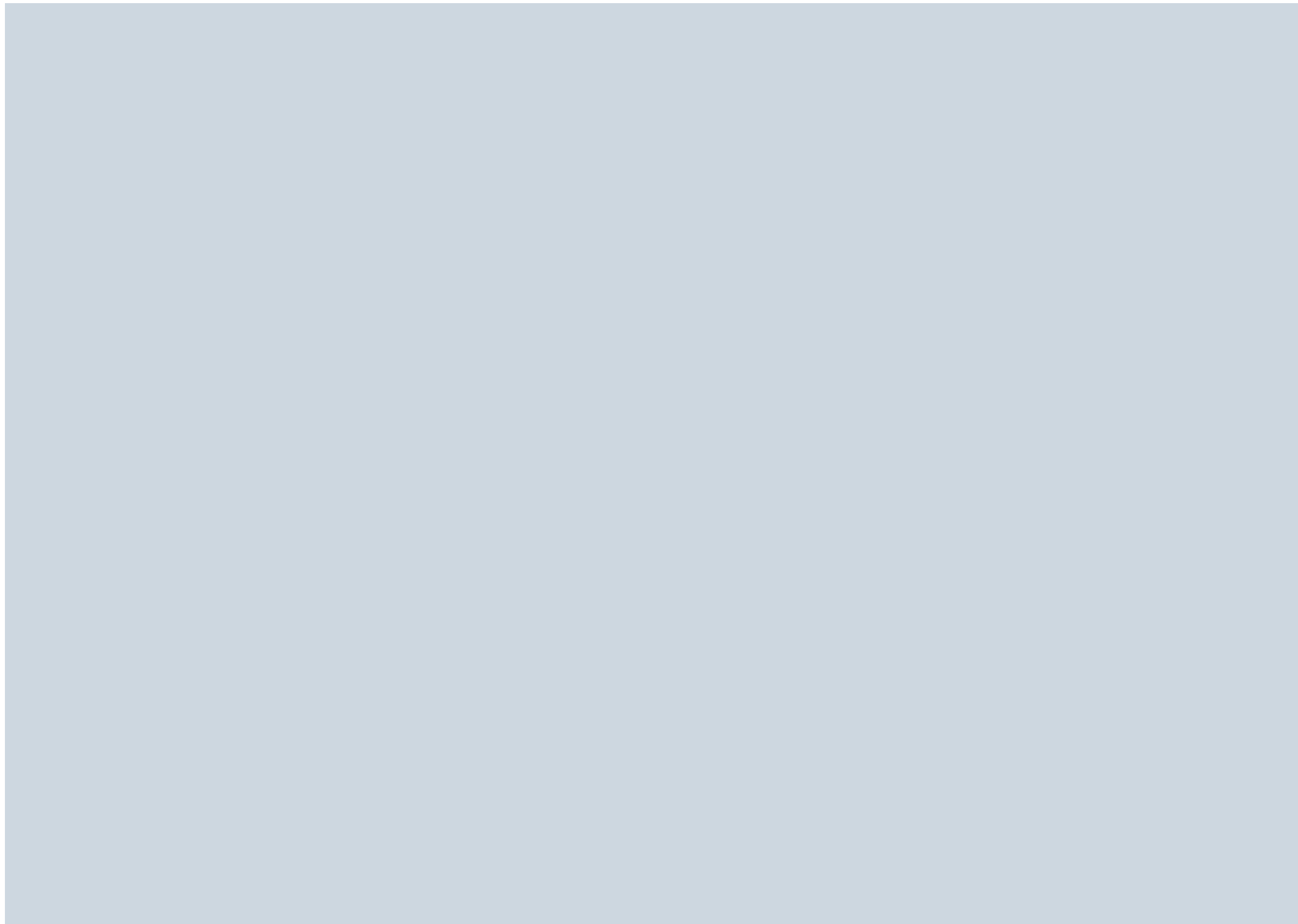
Due to the size and dramatic topography of Loreto Normanhurst increased heights of development have limited impact on neighbouring properties and street sight lines. The master plan will strategically position bulk and built form to reduce impacts for neighbours, enabling a more sensitive interface between educational buildings and residential uses at street frontages.

Creek

A ridgeline is situated directly adjacent to the site along Pennant Hills Road. Loreto Normanhurst is located over a watercourse which distributes run-off to a local creek, at the bottom of the site, which flows into the Lane Cove River. This natural watercourse is currently not well contained and causes flooding issues in wet weather.

The master plan will manage this overland flow complication which currently limits the use of the playing fields and propose Water Sensitive Urban Design to for water management. Refer landscape specialist documentation for details.







03 DESIGN PRINCIPLES + CONCEPTS

DESIGN PRINCIPLES - PARAMETERS TO GUIDE FUTURE DEVELOPMENT

HERITAGE AND LANDSCAPE

Loreto Normanhurst is located at 91-93 Pennant Hills Rd Normanhurst (the site). The site is oriented almost due north-south but as it occupies almost an entire suburban block, it also has east and west frontages and generally benefits from every aspect. Pennant Hills Road, bounding the site to its north, is a busy and noisy road providing a connection for vehicles between the M1 and M2 motorways. The site is also bound by two other quiet roads, Mount Pleasant Avenue to the east and Osborn Road to the west. Both of these roads are no-through roads, terminating in a cul-de-sac.

The school is characterised by high quality architecture including a number of significant heritage buildings and gardens. A large portion of the lower part of the school is occupied by significant indigenous bushland. This bushland is protected by an ecological listing and characterised as endangered Blue Gum High Forest. The bush is considered by the school to be an important asset as it is historically and ecologically significant and also presents educational opportunities for the students.

Currently the school has a number of internal roads which are used by service vehicles to access the loading dock (centrally located). The boarding facility, a noise sensitive function, is currently located within the main school buildings close to Pennant Hills Road near the Osborn Rd intersection.

The existing surroundings are predominantly low density, two-storey detached homes on generous lots; however, there is also a school, Normanhurst Public School and churches to the north of the site.

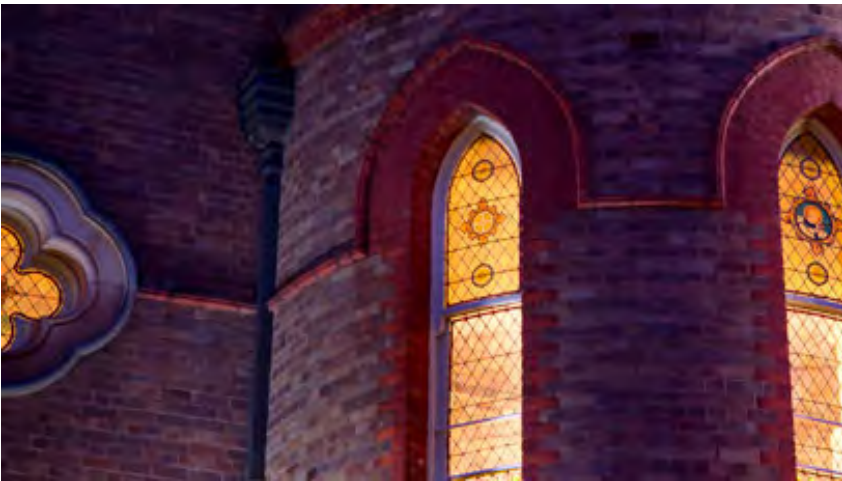
Proposal

The interventions proposed by the master plan will improve the legibility of the existing heritage within the site. This is achieved by removing boarding functions from within the heritage buildings to make them usable and accessible to a broader range of people. The relocation of the boarding function would also allow for the demolition of later additions which detract from and negatively impact the heritage buildings. Conversion of the internal roads to pedestrian spaces and the proposed landscape upgrade of these

spaces and the current loading dock, will improve the grounds of the school and also the context in which the heritage gardens and buildings currently reside.

The design takes into account the topography of the site by improving the connection between the lower portion (the playing fields, sports facilities and bushland) and the upper portion (primary and secondary school buildings and administration) of the site. A stronger connection will be achieved both visually and physically by creating a more visible circulation point between the aquatic centre and the proposed new gymnasium and also through the introduction of a more open landscaped connection from the secondary school buildings to the west of the gymnasium and an improved landscaped connection between the aquatic centre and the proposed boarding facility. This will increase the site's ability to provide diverse and functional teaching spaces and more accessible recreational spaces for students. An additional benefit may be that the improved connection and therefore consciousness of the bush could foster a better bush-regeneration program and engagement by students in the ecological significance of the site.

The orientation and nature of the site, being surrounded by roads, means that any future development will be able to take advantage of natural light and ventilation, particularly with regard to passive climate control and harnessing the natural features of the site. Because of the size and topography of the site, future development located within the site is likely to have limited to nil impact to the views or amenity of neighbours particularly when embedded within the site. Development on the street frontage is to be carefully considered to provide a sensitive and appropriate response for the educational facility within the context. The master plan interventions will improve the current amenity of the site by removing visible car parking and roads from within the site and upgrading these spaces to integrated landscaped spaces. Consequently, this will also improve views and therefore amenity of the neighbours who currently overlook the site.



SUSTAINABILITY AND WELL BEING

The school is deeply committed to sustainable initiatives and education. It is one of three strategic drivers for the school, underpinning their mission. The school currently has photovoltaic cells in operation and rain water collection, they also employ passive environmental control (predominantly in the form of insulation and ventilation) within their buildings where possible.

Proposal

A strategic plan for sustainable development and waste management has been developed with the ESD and waste consultants and is submitted with the master plan.

Each future development will employ ESD technology wherever suitable. However, the whole approach to the development of the master plan has been one of careful and critical enquiry. Every existing building has been examined for its current suitability and future potential. This interrogative process has resulted in a master plan which proposes a systematic rethinking of the programmatic function of existing buildings to free up space for growth within the existing fabric with minimal refurbishment. This enables for more efficient reuse and retention of the existing fabric and ensures its long-term functionality and suitability for future expansion of the school population. The school also views this development as an educational opportunity for their students, delivering their strategic commitment to ecology. Hydrology of the site has also been an important consideration with regard to understanding the natural watercourse and developing a strategy for its containment within the built zones of the site and improvement in its natural state within the forest.



ACCESSIBILITY AND WAY-FINDING

Much of the day-to-day areas within the school can be accessed by a variety of users with different mobilities and needs. However, the school and its grounds are not currently universally inclusive or accessible. The current boarding facilities are cramped and not suitable for universal access.

Way-finding within the school is also problematic as, although it has one address, it contains multiple separated entries. Currently the boarding reception is separate from the main reception but it is unclear how to distinguish these two places.

Proposal

The master plan was developed with accessibility in mind. Strategies to accommodate additional lifts and improved way-finding have been incorporated throughout the entire master plan (refer Chapters 03 Site Constraints + Opportunities and 04 Design Concepts within this report).

An access consultant has been engaged to provide advice for the development of the Stage One proposal (Boarding Facility) for which a report has also been prepared as part of this submission. Together with the access consultant, the design team has developed an accessibility strategy which increases the accessibility of the boarding school facilities and adjacent landscape areas, making it universally inclusive for a diverse community of users.

Way-finding within the site will be improved through architectural way-finding strategies as the master plan develops. The main reception area will be relocated within the heritage buildings of the school (as the architectural language of these buildings suggests the main entry it is logical to place it there). This relocation and upgrade will create a logical and more visible place of arrival, within the landmark building of the school, marking the entry point for a reception. Currently boarding has no street address making it difficult to locate the main entrance for this facility. In the master plan, boarding is relocated to Mount Pleasant Avenue. Boarding reception will be located within the Stage One proposed boarding facility which will have its own street address and front door making it easier for families to find the boarding facility and visit their children.



DESIGN PRINCIPLES - PARAMETERS TO GUIDE FUTURE DEVELOPMENT

SAFETY AND SECURITY

A number of issues relating to health and safety within the school were identified during the master planning process including:

- Conflict on internal roads between pedestrian and vehicle use
- Permeable school boundaries
- Unclear reception areas for visitors

Security and access to the school grounds is currently restricted by fencing and gates outside of school hours. However, the school does find that, when the gates are open, members of the public do access the school grounds. While the school wishes to operate as part of the community and foster good relations with local residents, they are also aware of the issues that porosity of school boundaries presents for the safety of children attending or residing in the campus. A number of people accessing the grounds in this way are actually attempting to locate reception areas, some of which are located within the heart of the school. This issue should be partially resolved by improved wayfinding strategies.

Currently the gates and landscaped boundaries of the school generally contribute positively to the public domain surrounding the site except in a few limited areas, primarily those associated with the on-grade car parking.

Proposal

The master plan removes vehicles from within the school grounds – restricting vehicular use within the school to buggies used by the maintenance crew. This will remove the current conflict of vehicles driven by members of the public and pedestrians within the site.

The master plan proposes a solution to security and safety by distinguishing zones. Distinct functional precincts will denote particular parts of the site for particular uses and clarify reception points. For example, boarding is moved to the outskirts of the site and given its own street address, making the reception for boarding distinct from the remainder of the school. The site is also overlaid with a hierarchy of privacy controlled by fencing, boarding is private (accessed only by staff, students and families with express permission), general school buildings are semi-private (accessed by staff, students and by visitors to reception or for events), the oval, swimming pool and event spaces are semi-public (accessed by users engaged with activities or part of the local community).



VIEWS + BEAUTY

The school currently benefits from beautiful and established grounds and facilities. While the quality of both the indoor and outdoor spaces are generally high and of distinctive character, there is insufficient space to accommodate the growth of the school and there are many opportunities to improve the architecture, landscape and existing spaces.

Proposal

The master plan proposes a variety of spaces including: classrooms and conventional teaching spaces, a mixture of outdoor spaces allowing for alternative teaching spaces and also informal recreation. The library, swimming pool, oval and event spaces being open to the community will allow for varying degrees of community engagement with the school.

Due to the scale and steep topography of the site, 'development situated within the site has limited to nil impact on the visual or environmental amenity of surrounding residents. However, development on the periphery of the site must take into account the visual and environmental amenity of neighbours. The master plan and the stage 1 proposal have been developed with consideration for the visual and environmental amenity for neighbours.

The relocation of boarding to Mount Pleasant Avenue ensures improved amenity for boarding students in a more homely environment, distinct from school buildings enabling students to engage in a home life which is separate from school. Mount Pleasant Ave is also a residential street, characterised by homes which is a more suitable location for a residence than within the educational fabric of the site. This part of the site is also further away from Pennant Hills Road and therefore is acoustically more suitable for this noise sensitive use.

The master plan also allows for increased storage and the removal of unsightly functions, such as waste, from visible parts of the site. This will increase the amount of outdoor landscaped space within the site and improve the visual amenity of the site.

