

# Design statement

## DEVELOPMENT SUMMARY

The South East Regional Hospital site is approximately 2km outside the Bega Town Centre on land identified by the Bega Valley Shire Council DCP 2009 as 'Important public open space & private rural landscape'.

The site therefore has limited urban relationship to the urban forms of the Bega Town Centre, but nonetheless occupies an important public site as an edge to the town's development and the Bega River flood plain.

The main vehicular approach to the site will be from Bega and heading south along Tathra Rd which lines the edge of town's eastern development and links back to the town centre. This approach provides vistas across the farming land that occupies the Bega River flood plain.

At the intersection of Tathra Rd and Harry Scanes Ave, a new public road is proposed to be constructed to provide access to the site. From this point the bulk of the new hospital is concealed by the site's sloping topography.

The grassed hillside and existing mature trees retain the existing character when observed from the site entry. At this point wayfinding will rely on new landscape elements - planting and retaining walls - and integrated signage to signify the new health precinct.

All vehicles enter the site at the one entry. A central vehicular spine is proposed that provides simple orientation within the precinct. Immediately upon entry, service, maintenance and supply vehicles are separated, directed to a discrete entry to the building's loading dock, and separate mental health vehicle entry. The change in site levels enable this area, with its separate engineering facility, LPG and Oxygen tanks to be screened from the public entry level above.

Similarly, ambulance vehicles are directed to a separate access to the ambulance bays, that will use a combination of land forming and vegetation to reduce its visibility from public areas. Carparks for staff and visitors are

broken down into modules. The bulk of the carparking is set behind the landscape of the collector spine, ensuring views to the hospital are preserved on arrival. Two other carparks are provided - one close to the building's main entry, for visitor and staff use -including night time parking, the other at a lower level, for staff and patients utilising the hospital's renal dialysis facility.

A number of massing options have been considered. These include reducing footprint, but extending to additional levels. On balance, a three storey solution is preferred, to reduce the building's mass, achieve appropriate clinical functionality, and retain significant land for future development.

The image of the building on arrival has been considered, with the intent of reducing the building's perceived height to project an image of reassurance through scale. This is a key philosophical driver for the project: to encourage engagement of local communities with the health services provided. Utilising the site's falls, the perceived mass is further reduced to two stories at the

public entry. A covered single storey pedestrian link is set into this elevation, linking the two principle public entries - the main entry, and visitor entry to emergency services. The combined drop off zone is landscaped to suggest a pedestrian friendly precinct. The hospital is viewed on approach across a 'forecourt', that will be landscaped to allow visitors, patients and staff to gather.

The requirement for access to natural light and views has resulted in the creation of a number of courtyards that break the hospital form into a number of 'fingers'. A courtyard provides a transitional space to the main hospital entry to the west. By co-locating this courtyard with another to the east, the building entry is able to achieve transparency, and preserve views through the building to the landscape beyond. Three large courtyards to the east will be landscaped to provide a series of passive and active environments that can be accessed by staff and patients, all opening out to views over the river plain.



# Design Statement

In principle the hospital's planning separates its acute, 24 hour functions from the daily functions of primary and ambulatory health care, either side of the main public entry. Ambulatory and primary health care is expressed as a two storey volume to the south, interlocked with the three storey volume of the other hospital functions. A plant room runs the length of the building over the central hospital street where it can link to service each of the departmental 'fingers'.

The three storey volume of acute services and 24 hour functions of the hospital has been planned according to its three levels. Typically, sub-acute, rehabilitative wards and their gyms are located at lower ground with good access to outdoor spaces. At one end of the lower ground floor, the hospital's mental health unit is located as a single storey construction, with necessary access to courtyards. At ground level, emergency services has dedicated ambulance and patient entries. Imaging is colocated with emergency services, but with a presence at the main public entry, where it can also service the needs of ambulatory and primary

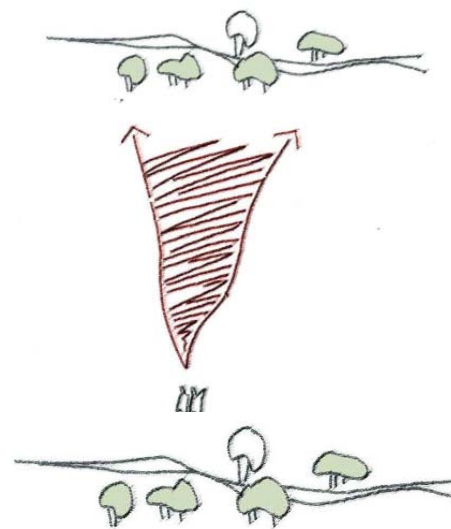
healthcare. To the east, the administrative functions of admissions, executive offices, as well as support spaces such as pathology, pharmacy and education are positioned with varying degrees of public interface. At level 1, high acuity wards are colocated with surgical theatres and day surgery unit.

A combination of patient and public lifts service each level, however it is envisaged that high visibility between floors along the hospital street, and strategic positioning of public stairs will reduce the general dependency on lifts.

Key urban issues will involve connection and management of flows of considerable staff, patient and visitor numbers from the town centre and surrounding areas to the SERH site. Establishing public transport connections will be critical due to the ageing population. A bus stop within the hospital site and the use of wheelchair accessible buses connecting the hospital to surrounding areas are recommended in the Traffic and Transport Engineering Report, as is the incorporation of pedestrian and cyclist facilities within the development, and facilitation of these connections from the site to the town centre.

## 1. CONNECTION TO PLACE

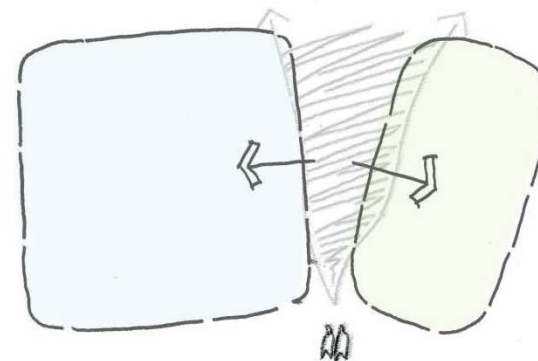
Established as a key aspiration from the outset, the planning of the building needs to respond to opportunities for transparency, allowing connections to the river plain beyond.



## 2. SEPARATION OF ACUTE SERVICES AND PRIMARY HEALTHCARE

The blocking and stacking responds to its connection to place by ensuring transparency from the entry, and allowing this move to influence the organisation of spaces further within the building.

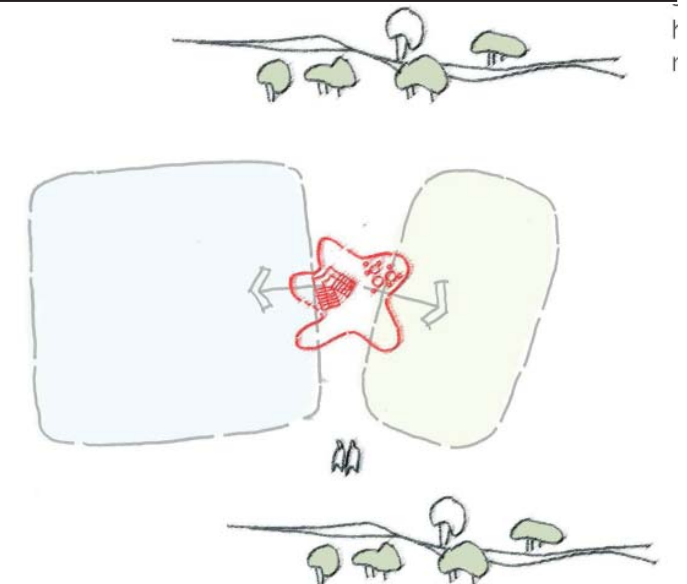
The line of site generated from the entry to the landscape beyond becomes a natural division between acute services (blue) and primary / ambulatory healthcare components (green).



## 3. CREATING A CENTRAL SPACE - THE 'HEART'

Fundamental to the identity of the building is a central space connecting the physical levels of the building, their activities, and the landscape beyond.

This becomes integral to wayfinding, visibility and connections between spaces / staff and patients.



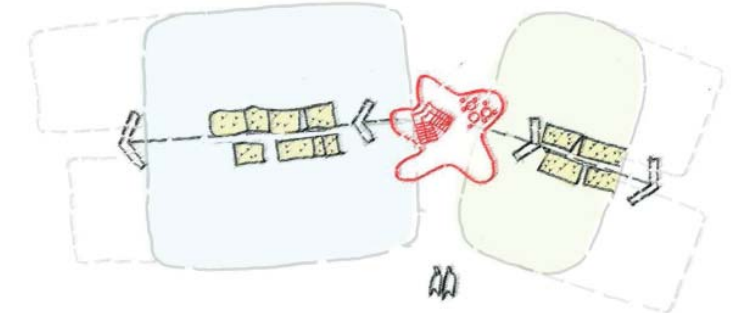
## 4. CIRCULATION SPINE - 'HOSPITAL STREET'

From the the central space, a clear circulation spine orders the connections between departments.

This element gives clear direction for expansion strategies, by extension of the spine.

Spaces briefed within departments with an address to the spine, can then begin to be shared between departments.

Voids and stairs within the spine facilitate connections across levels.



# Design statement

## Aspirations

From the project outset a series of aspirations have been formulated to guide design decisions. These include:

### **Creation of appropriate identity and sense of Place**

In response to the hospital's siting, a central project aspiration is the retention of a strong connection to landscape that instills an awareness of the project's specific 'place'. This informs the hospital's siting and footprint, optimising its north easterly aspect on the edge of the Bega River, incorporating landscape forecourts and courtyards and maximising access to views and light. It generates a strategic response to the site's topography and the implementation of new landscape elements which will develop a framework for the precinct.

In determining an appropriate identity for a regional facility sited in a rural landscape, the architecture of a regional hospital needs to be acutely aware of its context.

It should:

- project an image of reassurance through scale and materiality
- provide an architecture that is both playful and joyful
- integrate landscape and building

As such the new hospital utilizes the site's fall to the north east to minimize the perceived height of the building on approach. From this perspective the hospital is read as a two storey mass. A long covered way presents the image of a 'verandah' and beyond, an entry courtyard activated by retail activity provides a welcoming space on arrival. The entry lobby is conceived as a thin transparent space visually connecting the entry courtyard to the landscape beyond.

From the north and east, the hospital presents as three levels maximizing the views and access to light from the key patient and public areas. Importantly from this perspective, the mass is broken by a number of landscaped courtyards that provide aspect and recreation.

### **Developing a masterplan for an integrated community campus**

The siting of the hospital is intended to facilitate future development on the site, with road design, cycleways and pedestrian paths, bus stops, carparks and site services designed for future expansion of the hospital and potential future development for uses with synergistic relationships to the function of the hospital.

Central to the design of any hospital is the ability to adapt to changing clinical models and expansion of services. The hospital design employs a central pedestrian circulation spine (the 'hospital street'), from which each of the individual departments can be seen and accessed. This spine provides a clear strategy for expansion of the hospital, as the spine can be extended to add future departments at its north and south ends.

The developed landscape will be an important contributor to the creation of a precinct capable of hosting future functions and community events appropriate to the hospital's civic role.

### **Embracing the principles of 'healthy design'**

This term is used to encompass a range of desirable qualities in a health facility including:

#### *Maximising Access to natural daylight*

The footprint is configured as a number of 'fingers' separated by courtyards, that maximize the number of spaces with access to daylight and views.

#### *Encouraging mobility*

The public entry is located at the middle of the hospital's three levels. In doing so the visitor is encouraged to move up or down a single flight by stairs, in preference to the lifts provided. Mobility is further encouraged by providing clear wayfinding and locating stairways to have views to external areas.

#### *Providing access to green space / external courtyards*

A number of courtyards are provided with differing levels of access and activation.

The key image of the hospital is its entry courtyard. This is designed to be activated by outdoor seating and a café facility, and will provide areas for groups to gather within its landscaped environment.

A number of secondary courtyards separate the inpatient units to the east, with views over the river floodplain. These are accessible by patients, and contain mobility gardens and areas for sitting and walking that support patient and visitor wellbeing.

Within the Mental Health unit, a number of courtyards are provided that support the clinical models of care, providing therapeutic spaces for the management of complex behaviours. Importantly the Mental Health Unit is designed as a single level component to ensure adequate daylight to the internal courtyards required.

#### *Opportunities for socialization*

Both in the external landscape, and in the key internal public spaces, areas are provided for staff, patient and visitor socialisation.

This begins in the landscape away from the hospital, where areas are provided with seating outside emergency, and further into the landscape where a 'bush tucker garden' is to be established. Closer to the main entry, a central courtyard and entry lobby become the key socialization spaces for the hospital. Activation is provided by collocating this external space with the key retail spaces, front of house and waiting spaces for outpatient services such as primary health and medical imaging.

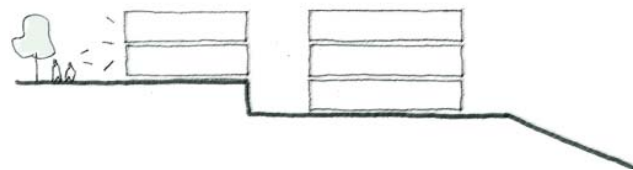
#### *Appropriate sense of scale*

The entry sequence from Tathra road to the hospital entry has been considered, with the intent to provide clear intuitive wayfinding and an appropriate welcoming identity. Appropriate for a regional facility sited in a rural landscape this is expressed as a horizontal two storey element. Within the building, the scale of spaces provides a connected, light filled environment with a comfortable 'human' scale.

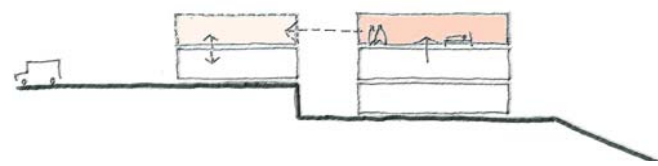
#### *Connectivity from outside in and inside out*

Courtyards, and building form maximize the perimeter and opportunity to connect interior spaces with external landscape.

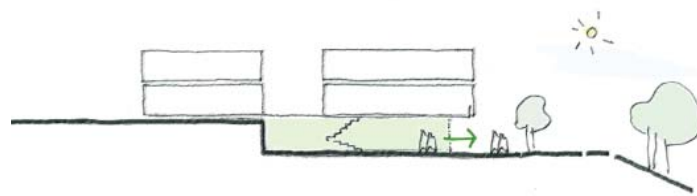
Where possible, circulation areas, central corridors and the like are terminated by glazing with views to the surrounding landscape rather than being closed off with walls or rooms. This optimizes access to daylight, and assists with orientation, while reinforcing the intent to create a sense of place.



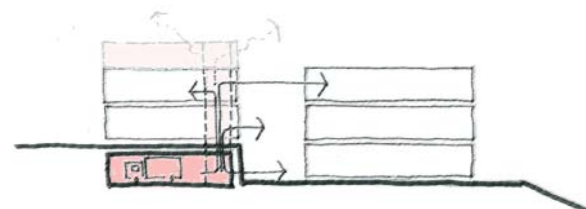
1. IDENTITY AND SCALE



2. HIGH ACUITY ZONES



3. LOW ACUITY ZONES



4. SERVICING

### Separation of flows

The planning of the new facility employs a number of overlaying strategies that provide legibility and clarity to enable separation of acuity levels, public, staff, patients, maintenance, goods and services flows.

#### Planning the Hospital's Three Levels

Broadly, the hospital has been separated by function into the three major levels:

- Public entry is by the mid level which becomes the primary public level and provides good proximity to the levels above and below. Given its public nature, no inpatient wards are located on this level.
- The upper level becomes a 'high acuity' level and accommodates high acuity wards such as Surgical and Integrated Critical Care. Colocated on this level are perioperative units including theatres and day surgery areas.
- The lower level then houses low acuity wards, gyms, and Mental Health which require direct access to outdoor courtyards.

Key to these strategies are clear and intuitive wayfinding and operational and servicing strategies.

#### Vehicles and entry

Upon entering the site, maintenance vehicles are immediately separated from other flows with a separate road servicing the back of house areas and loading dock. This minimizes impact of slower maintenance vehicles on other traffic. A secondary entry to mental health is also provided from this lower level, although it is envisaged that primary entry to mental health will be through the emergency and public entries.

Approaching the hospital, the next intersection provides access to the ambulance bay and ambulance entry to emergency. Importantly, the ambulance bay and associated activities are visually separated from the visitor entries to the main admissions, and emergency.

A one way vehicle loop provides access to drop offs outside emergency and the main hospital entry, separate from the general vehicle circulation.

A central collector spine provides a simple connection to a series of discrete car parks.

Elsewhere, secondary entries are provided to allow patients utilizing oncology and renal dialysis facilities discrete access to these units.

### Service Integration and Collaboration

Service integration and multi-disciplinary collaboration is promoted in the building design by

- Integrating all service streams into the core of the new hospital and providing strong connectivity between them.
- Bringing together service components into an integrated model e.g. paediatrics, to help guide patients traversing the care continuum and to promote staff collaboration.
- Bringing together clinical service streams and "blurring" the boundaries between these services e.g. primary health care and ambulatory care services.
- Providing formal and informal ("bump") spaces to promote interaction and collaboration.
- Promoting the sharing of space e.g. locating service components which are most likely to flex or support several clinical service streams at the perimeter of a service and orienting to the primary circulation and travel paths.
- Providing staff ease of connectivity to the different services they may work across.

### Connectivity

The building's planning around the hospital street, multi-level spaces around stair connections and transparency facilitate functional connections, clinical flows and wayfinding.

Shared spaces such as meeting rooms are made clearly visible to maximise their use by all departments. Physical and visual connections from various parts of the building to the external landscape, courtyards and vistas build on the site's opportunities.

Culturally, the visibility of staff to each other will enable an engaged workplace environment of collaboration and common purpose.

Visual connections from the hospital street to courtyards, lightwells and multilevel void spaces allow this central circulation space to connect within the building and to the landscape beyond.

### Flexibility for future planning

At a masterplanning level, the siting of the hospital maximises potential for future development of the precinct and provides a clear framework for growth that will facilitate future clinical relationships as well as preserving those already established.

High growth areas have been identified and strategies for expansion of these facilities has been developed - either to build as additional envelope in the future or by placing areas with low dependency on services (e.g. medical records) next to areas that will eventually require expansion, to maximize the ease of future expansion.

The building utilizes a regular 8.4M column grid and has provision in slab thickness for future setdown zones to be incorporated. Typically ward fingers have been planned to suit a 3 bay width as this has been proven to allow best flexibility for future uses. Roofs have been designed as a concrete slab with lightweight metal roof over, to enable future expansion should it be required.

The massing of the hospital considers anticipated expansion. By locating the Mental Health inpatient ward at the edge of the building as a single storey mass, its expansion strategy has been considered. Similarly, the roof over primary care services anticipates the expansion of inpatient units at level 02.

### Focus on services , in particular primary, community and ambulatory services

A distinct two level massing at the southern end of the building provides most of the outpatient services such as ambulatory / primary care over two levels and includes oncology and renal dialysis units, gyms and oral health. It is envisaged that this allows the appropriate level of separation between outpatients and acute patients using services elsewhere in the hospital.

The main entry courtyard and lobby provides an important nexus between inpatient and outpatient services.

### **Culturally Appropriate**

Consultation has been undertaken with local Aboriginal communities which has helped inform the cultural appropriate design of services, facilities and site planning.

Some of the outcomes currently evidenced in the design are

- Recognising the past history of the site and the importance of the site and facilities for local communities. In particular symbolic connections to the north and south, framing vistas of local geographical features
- Development of landscape components and tree plantings with particular relevance to local indigenous communities such as the 'bush tucker garden'.
- Creating a welcoming and inclusive environment.
- Providing a strong connection to external spaces, and the surrounding landscape.
- Locating the Aboriginal liaison office near the front of house for ease of access from the main entry.
- Specific services / departments having access to culturally sensitive quiet, reflective or external spaces.
- Internal/external spaces located away from services where groups of people can come together.
- Acknowledging the Australian, NSW, and aboriginal flags upon entry to the site.
- Implementation of a cultural arts program developed in consultation with the community that is relevant to all users.
- The ability for carers or family members to stay with the patient

### **Sustainability**

The new hospital will be built on agricultural land at the city fringe in contrast to the existing hospital which sits in the established town network. The situation provides the opportunity to examine infrastructure requirements and delivery. For instance, the Bega Valley currently has no gas lines installed, which will necessitate rethinking of appropriate efficient fuel sources given the likely high heating demands.

In response, various alternative energy sources have been investigated and evaluated against the specific characteristics of the site situation. From this analysis it has been concluded that energy derived from a geothermal system is a feasible alternative. An area of the site has been designated for the establishment of geothermal bores - refer to diagrams.

#### *Building Siting and Form*

Building siting is a key passive design opportunity. Fortunately, key views and aspect across the river plain relate to a favourable north east orientation. The fall across the site enables the perceived form to reduce to two storeys facing west opening out to 3-4 storeys orientated north and east. The functional requirements for access to the perimeter for daylight penetration to habitable spaces result in a 'finger-like' form with courtyards created to reduce the building mass.

### *Materials*

Analysis of local climatic data indicates that the average ambient temperatures are generally below accepted comfort levels indicating that the critical loads will be heating. As a response, the base building fabric has been chosen based on the ability to achieve high insulating properties. The general cladding panel used is a high performance insulated metal panel. This is arranged vertically, spanning floor to floor. To suit this system, unitized double glazed windows are inserted, also spanning vertically.

The façade composition is arranged so that this flush panellised system is recessive. In counterpoint, recessed areas are treated as highlights, rendered smooth in a welcoming lighter colour to indicate entries, social spaces, canopies, and outdoor spaces. Within these areas, natural materials such as timber provide further texture and warmth.

A number of site characteristics will encourage a specific response in minimising the energy consumed by the hospital. Major factors include site location, topography and aspect, available energy sources and response to climate.

### *Site Drainage*

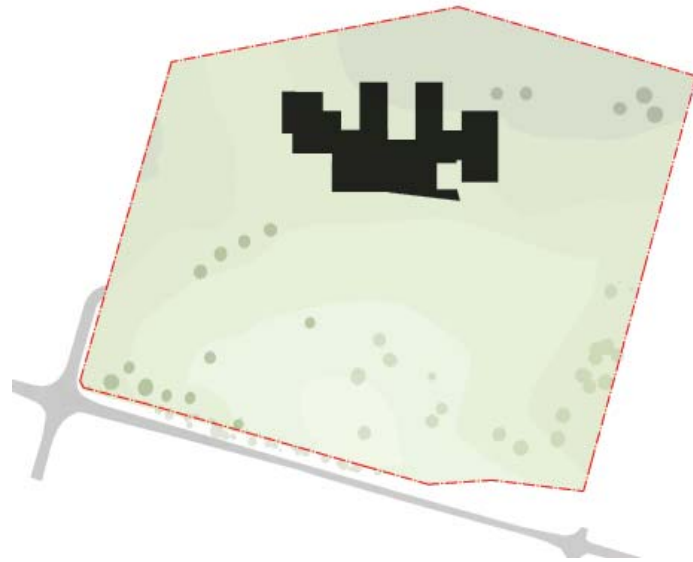
Landscaping and Civils designs have focussed on passive methods of slowing and cleaning large water run off generated from carparking areas. This includes integrating swales as a landscape and civils component within carparks, and alongside new road works. Locations for potential stormwater retention are indicated on the site plan.

**Public Transport / Pedestrian Access and Cycleways**  
The site's location away from the centre of the Bega township will see a heavy reliance on public transport to reduce the number of patients and staff who will likely arrive by car. Discussions have begun with local transport providers and a likely bus route and bus stop have been marked. Likewise, pedestrian and cycle paths have been located in site planning that will service the site in the short term but more critically into the future when the site is developed as a health campus. Cyclist facilities will be located adjacent the public entry and change facilities within staff amenities.

### *Cut and Fill*

Building siting and levels have been studied to minimise excavation and balance cut and fill across the site. Local rock evidenced on site will be reused as road base or landscape works on site.

# Urban design

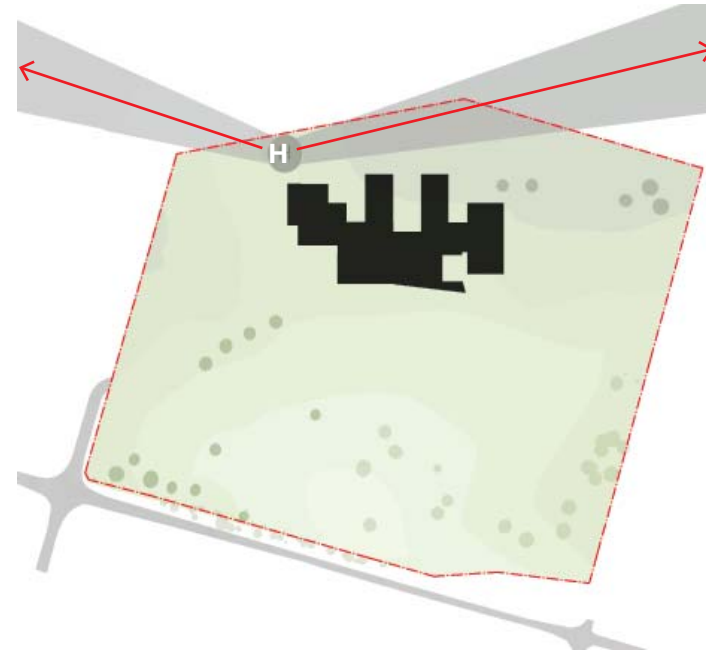


## 1. BUILDING FOOTPRINT STAGE 1 HOSPITAL

The building is sited close to the eastern boundary/1 in 100 year flood extent to maximise the developable area for future development elsewhere on the site.

At the eastern boundary, the siting maximises preserved views across the river plain.

The length of building runs along natural ground contours to balance the site cut and fill.

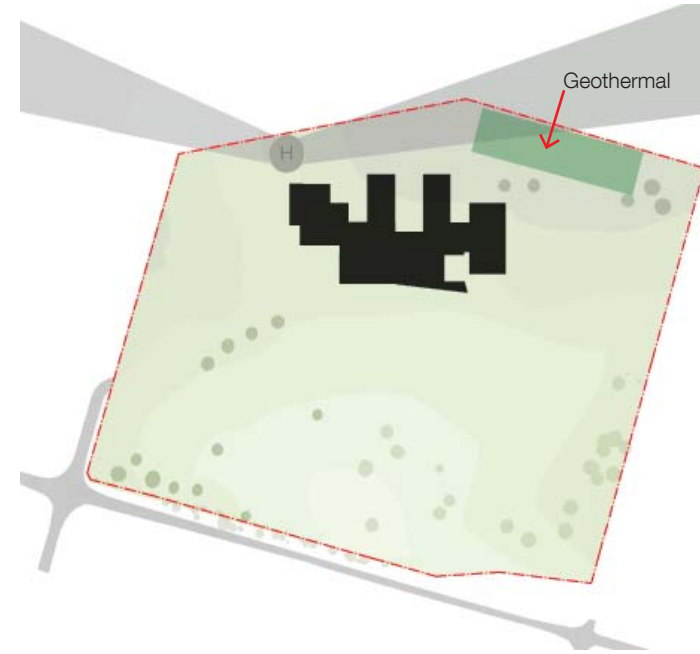


## 2. HELIPAD SITING

The helipad is located on the eastern side of the building away from public circulation.

At the eastern boundary, incoming and outgoing flight paths make least disturbance over other areas of the site.

The helipad is located to the North of the building footprint where the land rises enabling a level connection to the lower ground floor of the hospital.

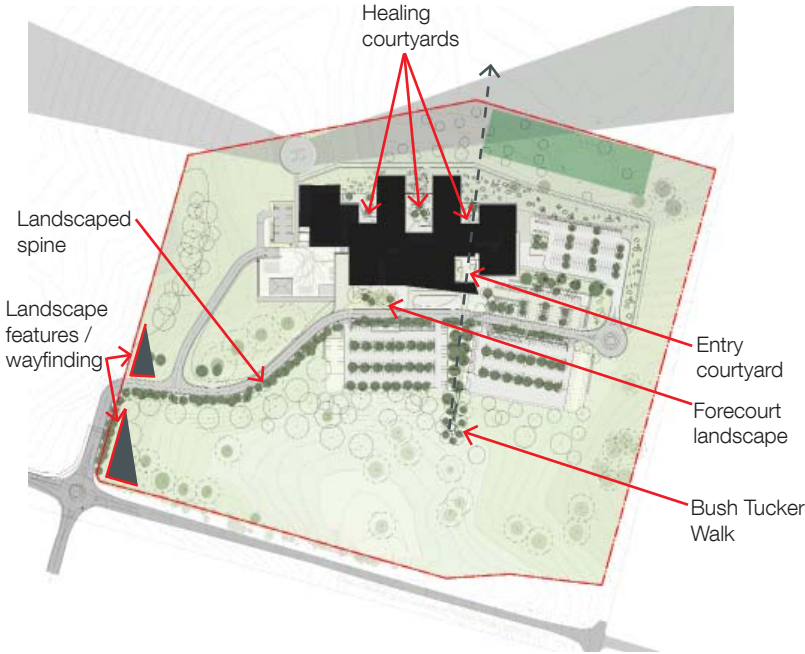


## 3. IDENTIFYING A ZONE FOR GEOTHERMAL BORES

Geothermal has been identified as a feasible alternative energy source.

Requires a zone for bores of approx 6,500sqm.

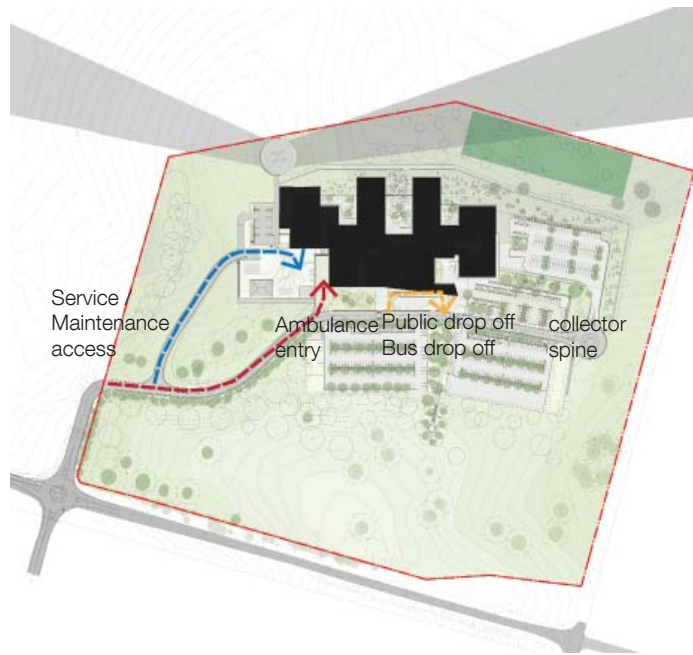
Locating this zone below the 1 in 100 year flood extents makes best use of undevelopable land.



## 4. LANDSCAPE

The landscape design will complement the building, accentuating the sense of arrival, settling the building mass and maximizing vistas. The entry road will create a 'Green Avenue', providing a distinct separation between the building and carpark, augmenting the building entry. It will maximise the existing natural buffer to Tathra Rd and future developments opposite and around the site. The landscape treatments will be integrated within the car parking areas.

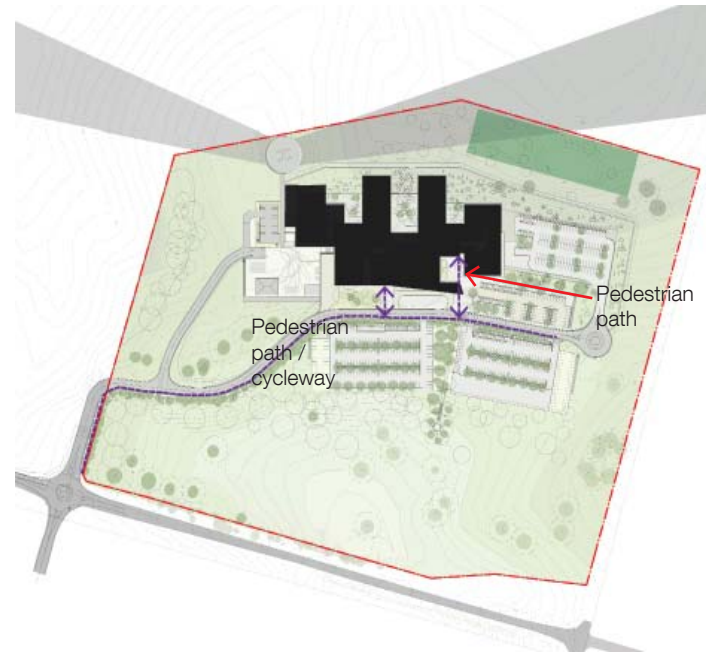
The landscape design will create a series of connected, fully accessible healing gardens, utilising the building curtilage (particularly the downslope) as well as in the Entry Courtyard space.



## 5. CIRCULATION NETWORK

A collector spine forms the principal vehicular access.

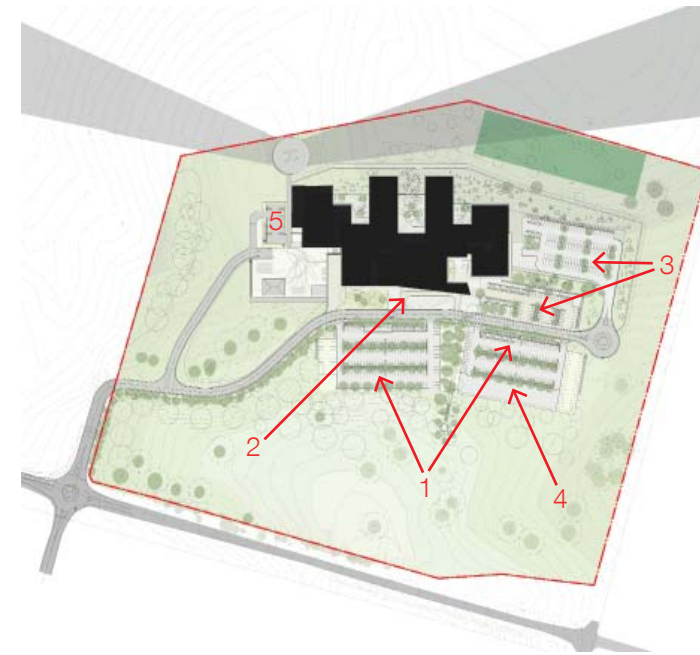
Branching from this spine, service vehicular access, ambulance access and public drop offs are configured.



## 6. PEDESTRIAN NETWORK

A 3M wide shared pedestrian / cycleway is shown along the collector spine from the Northern boundary to the hospital entry.

A pedestrian path is indicated collecting pedestrians from carparks South of the building footprint.



## 7. CAR PARKING

The carparking strategy identifies 5 carparking zones.

### 1. Bulk carparking:

Likely to be shared by staff and patients, of around 300 car park capacity. Screened by the landscape spine with capacity for overflow.

### 2. Drop off bays:

Close to ED and the Main entry, these are likely to have short time restrictions. Likely capacity : 10 spaces.

### 3. Close Proximity Parking:

Divided into two areas outside main entry and lower level entry. Likely to have designated patient areas, fleet car areas and staff areas. Likely capacity approx 160 spaces.

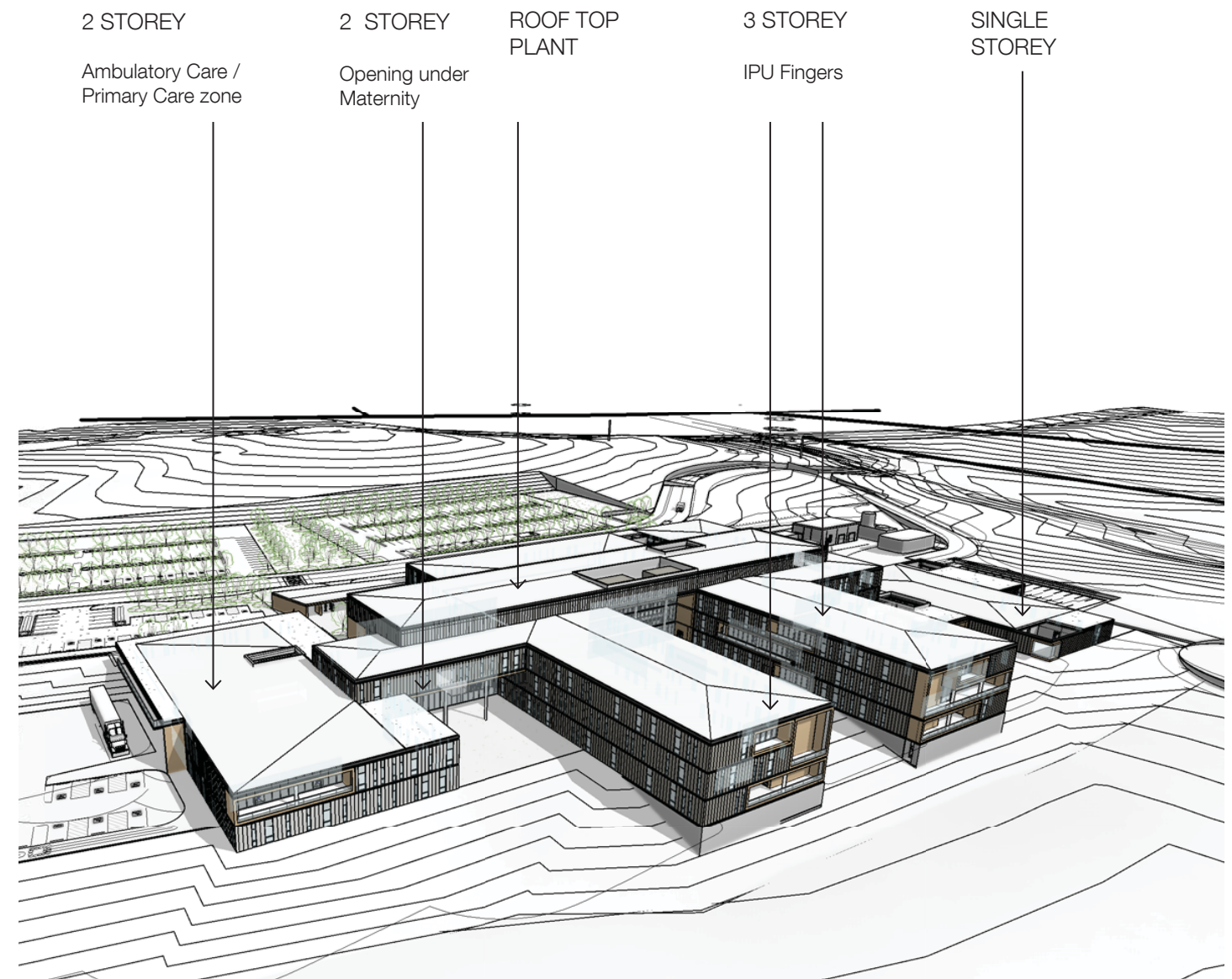
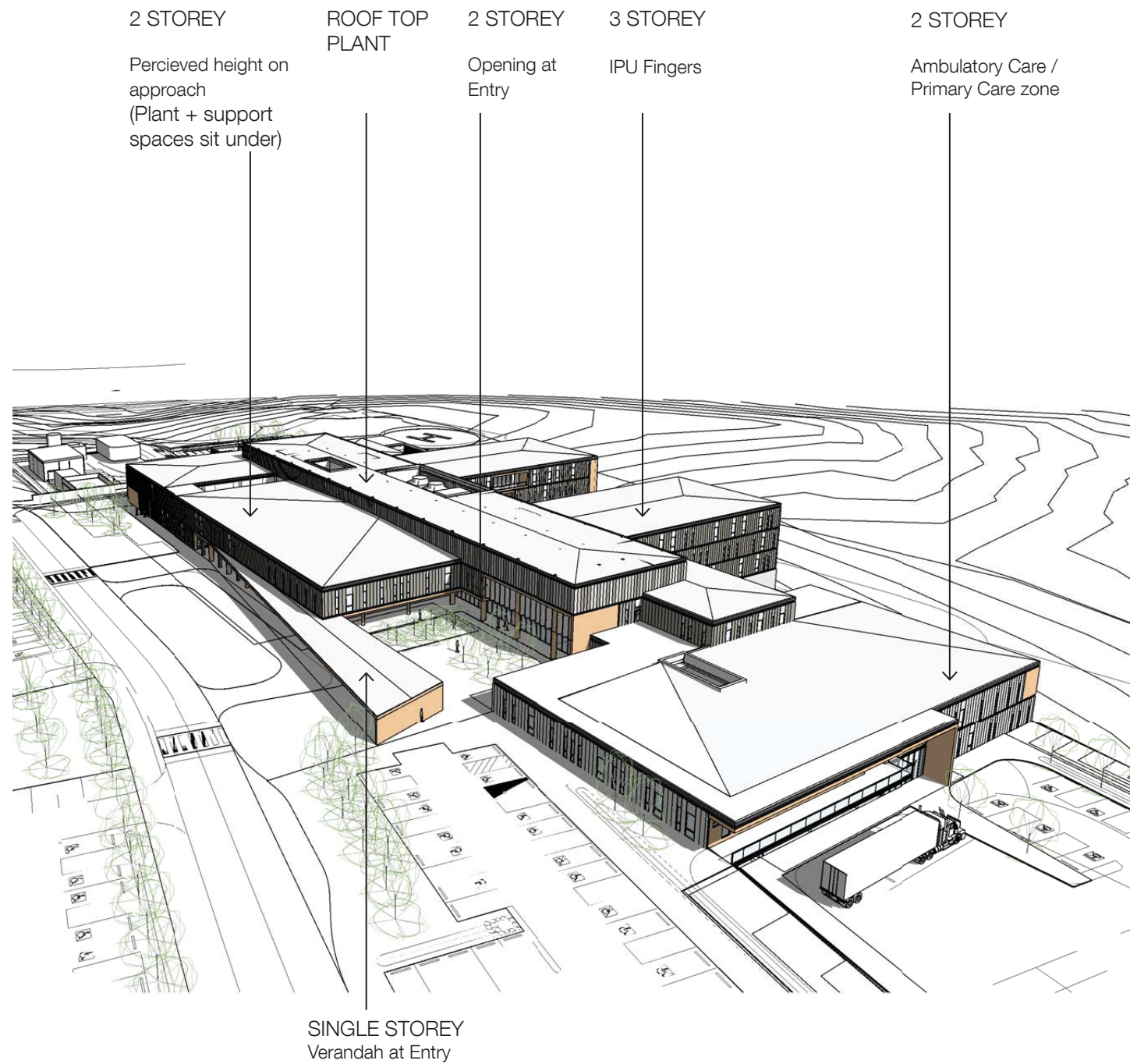
### 4. Overflow / Future carparking:

5. Service / Maintenance carparking / Mental Health: Located at lower level outside Mental Health. Likely capacity 25 spaces.

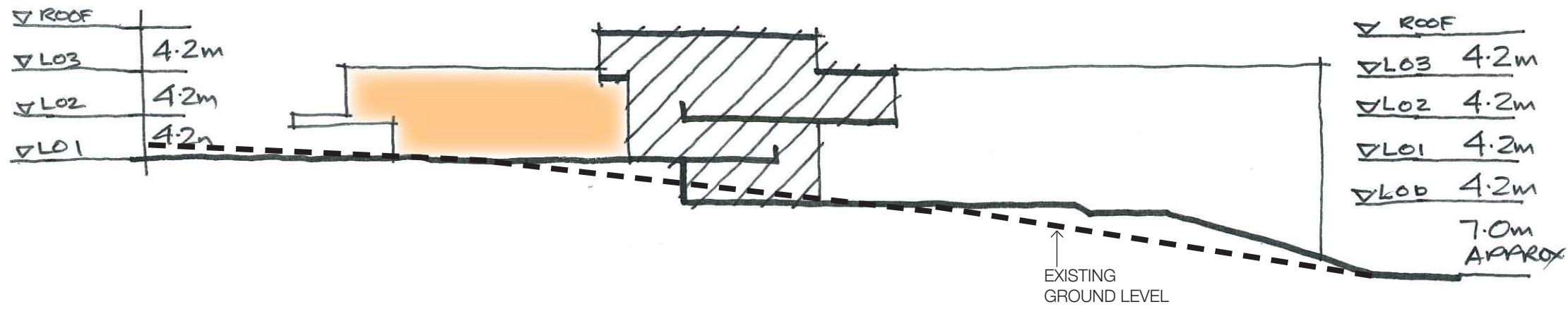
# Bulk and scale

The following images demonstrate the general building massing.

The full building mass is concealed on approach to create a reassuring 'horizontal' scale.



# Bulk and scale



The building height is determined by the typical floor to floor height.

Civils analysis of cut and fill has determined optimal building levels on the site. The large areas of carparking and underdeveloped land should facilitate a balance of cut and fill.

# Bulk and scale

The following describes the general principles generating the building form.



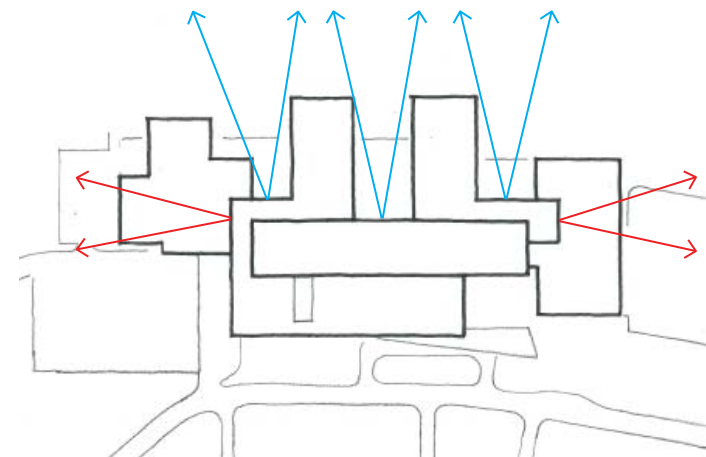
## A. HORIZONTAL PROPORTION

The site sits with an expansive 'Horizontal' rural setting. Generally larger rural buildings have a long horizontal form. The form of the hospital is stretched out along the contours to echo the proportion of these rural building forms.



## B. BUILDING TO BE APPROACHABLE

The hospital will serve a rural and coastal area consisting of many small towns. The existing building stock of these towns rarely rises above 2 to 3 storeys. To maintain an approachable building form that the users are comfortable with, the building form has been manipulated to present as a 2 storey building. The entrance is located in the middle level of the 3 public areas of the hospital to further reduce the perceived scale.



## C. MAXIMISING PERIMETER

Maximising the perimeter wall whilst maintaining suitable internal planning relationships and minimising circulation distances.

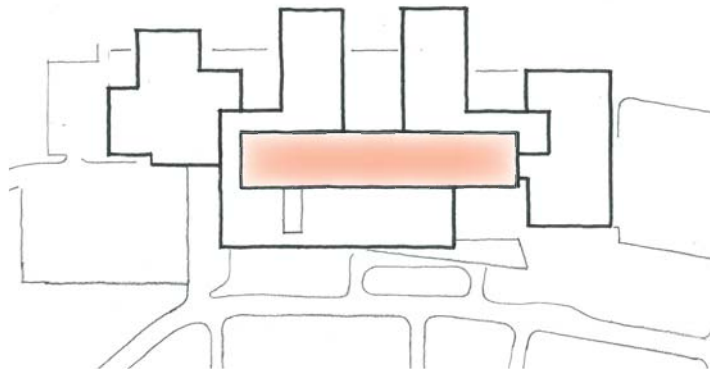
The building's site on the edge of a flood plain provides excellent opportunity for aspect that is unlikely to be compromised by future development. The rural vistas are likely to help create a sense of appropriate 'restful' and 'healing' atmosphere. In response, the building planning maximises access to these views and light by maximising the perimeter of the IPU's and other treatment and workspaces and by facilitating transparency through to the Hospital Street to allow views from within the building.



## D. CREATION OF 'TRANSITION ZONES'

The building plan form allows for the creation of a series of major courtyards around the building. Either between the 'Fingers' (such as between the IPU's) or large areas carved out of the plan such as the main entry courtyard. These courtyards act as a transition space adjacent to the building, between the expansive rural setting and the internal space of the hospital.

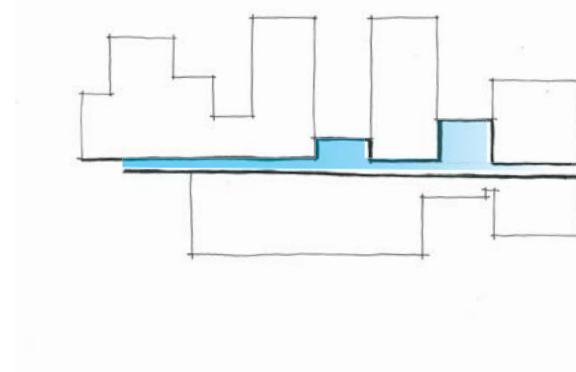
# Bulk and scale



## E. CENTRAL LOCATION OF ROOF PLANT AREA

The roof plant is a linear form following the main axis of the hospital. By straddling all wings of the building it is ideally located to service the building. Risers are generally located along the 'hospital street' where access is independent of clinical areas.

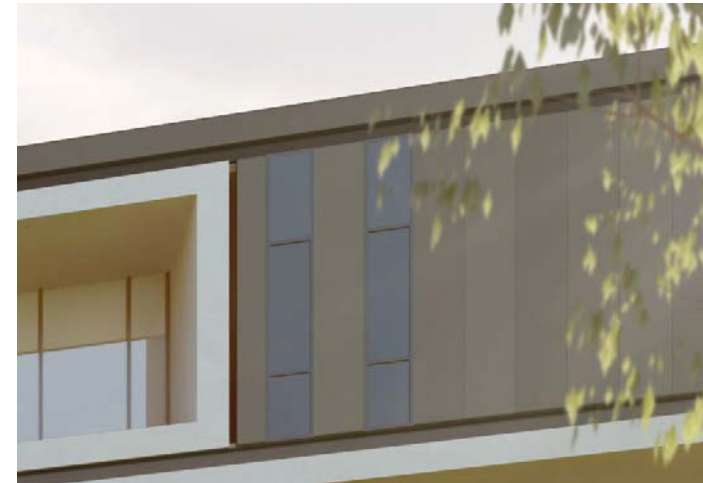
The plant area is generally set back from the building edge to reduce its impact on the scale of the building.



## F. HOSPITAL STREET

The form is influenced by the linear nature of the 'Hospital Street'.

And further more by keeping the Hospital Street open at the ends to enjoy light and views whilst allowing for future expansion possibilities.



## G. FLUSH FORM

The form appears as a relatively simple combination of linear elements which have been 'carved' out to create required outdoor areas, circulation and weather protection at building entries.

The 'carved' out form is enhanced by contrasting a panelled flush facade of the primary form with a seamless render finish to the carved section.

# 3d views



3D Impression from the lower Eastern side of the site.

# 3d views



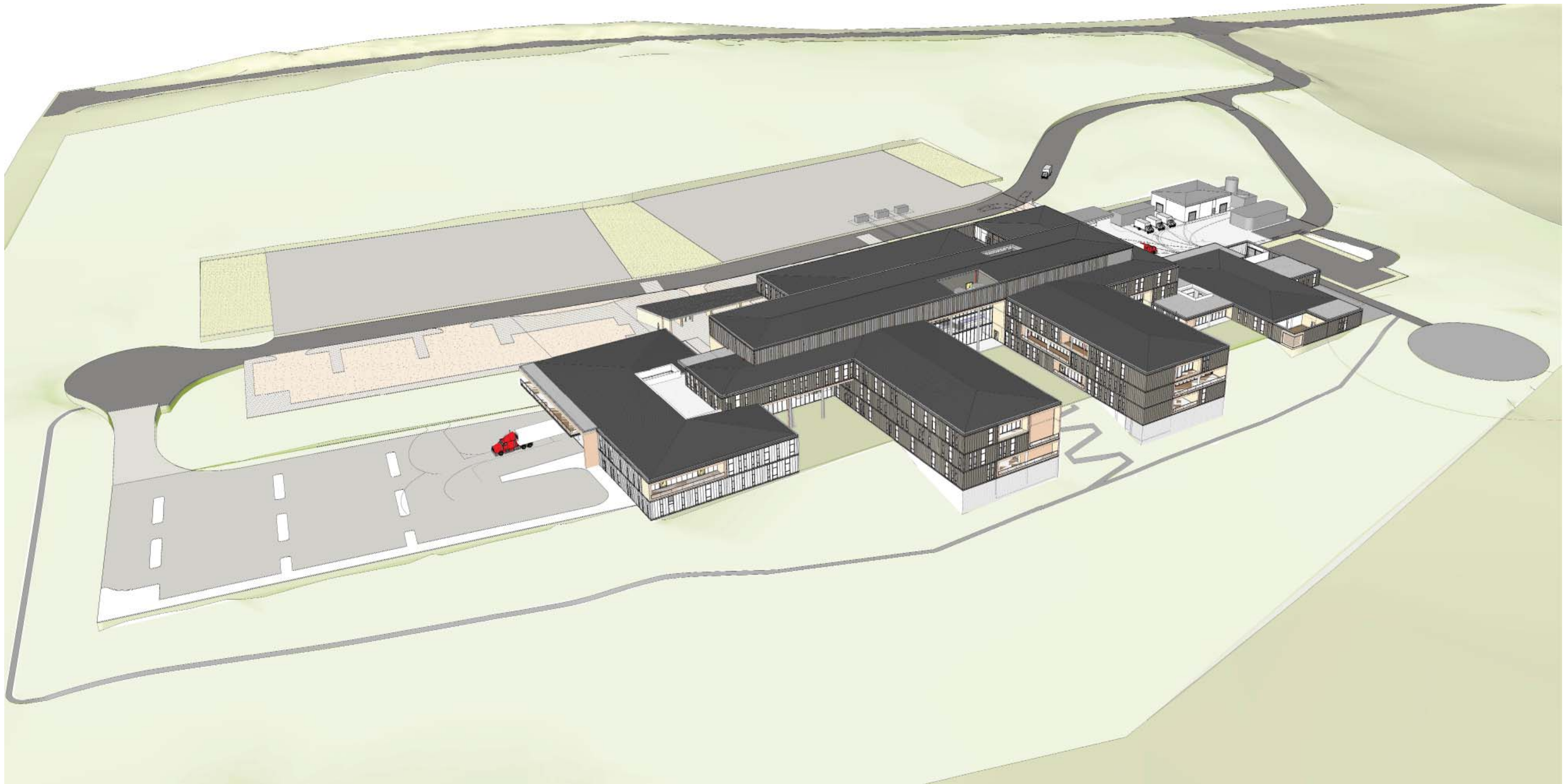
3D Impression of the Entry Courtyard from the public carpark

# 3d views



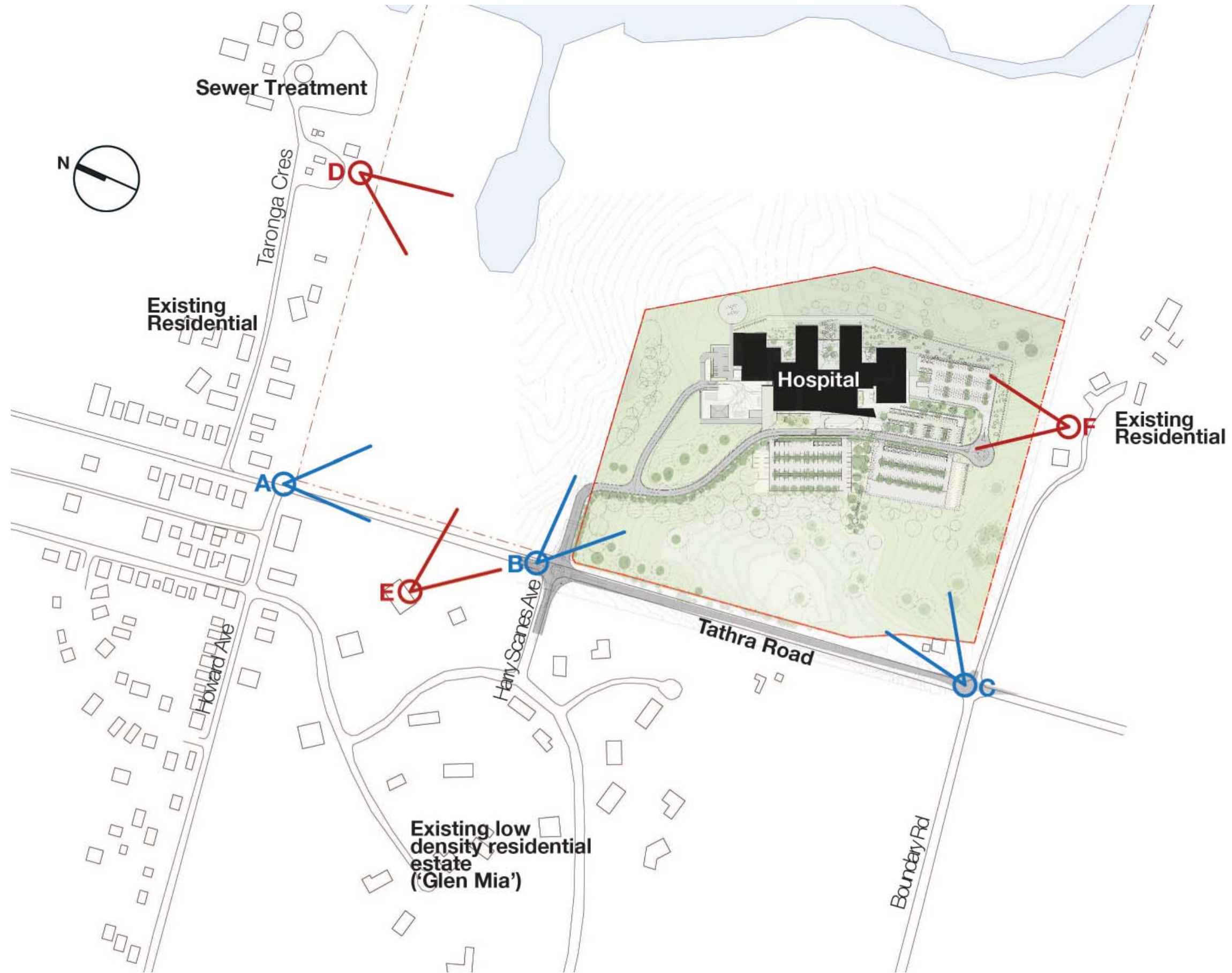
3D Impression of the entry approach along Main Access Street.

# 3d views



**ELEVATED OVERALL VIEW**  
3D IMPRESSION FROM SOUTH - EASTERN ANGLE

# View Analysis



# 3d views



VIEW A - LOCATION PHOTOGRAPH



**VIEW A**  
3D IMPRESSION FROM TATHRA ROAD  
NORTHERN END

# 3d views



VIEW B - LOCATION PHOTOGRAPH 1



VIEW B - LOCATION PHOTOGRAPH 2



**VIEW B**  
3D IMPRESSION FROM TATHRA ROAD  
CENTRE / ENTRY INTERSECTION

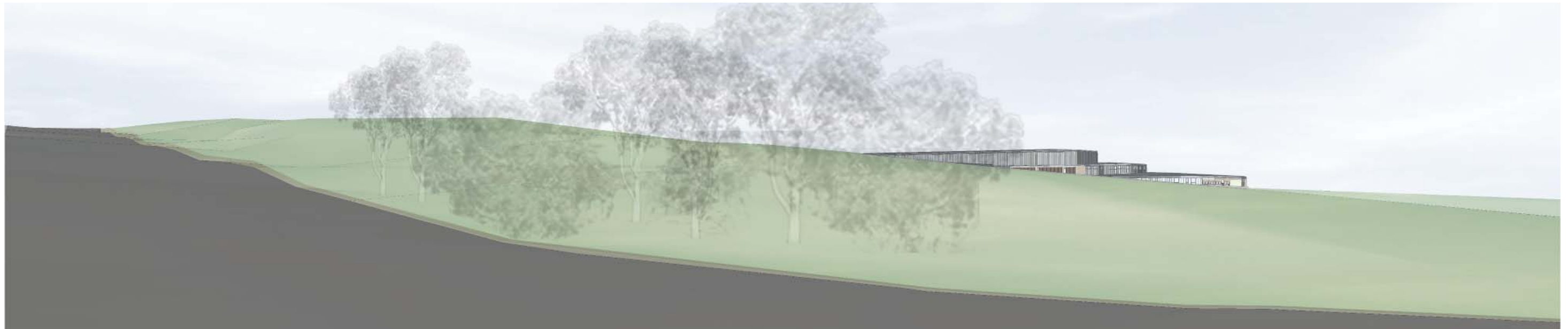
# 3d views



VIEW C - LOCATION PHOTOGRAPH 1



VIEW C - LOCATION PHOTOGRAPH 2



**VIEW C**  
3D IMPRESSION FROM TATHRA ROAD  
SOUTHERN END

# 3d views



VIEW D - LOCATION PHOTOGRAPH



**VIEW D**  
3D IMPRESSION FROM NORTHERN NEIGHBOURING  
RESIDENCES ALONG TARONGA CRESCENT

# 3d views

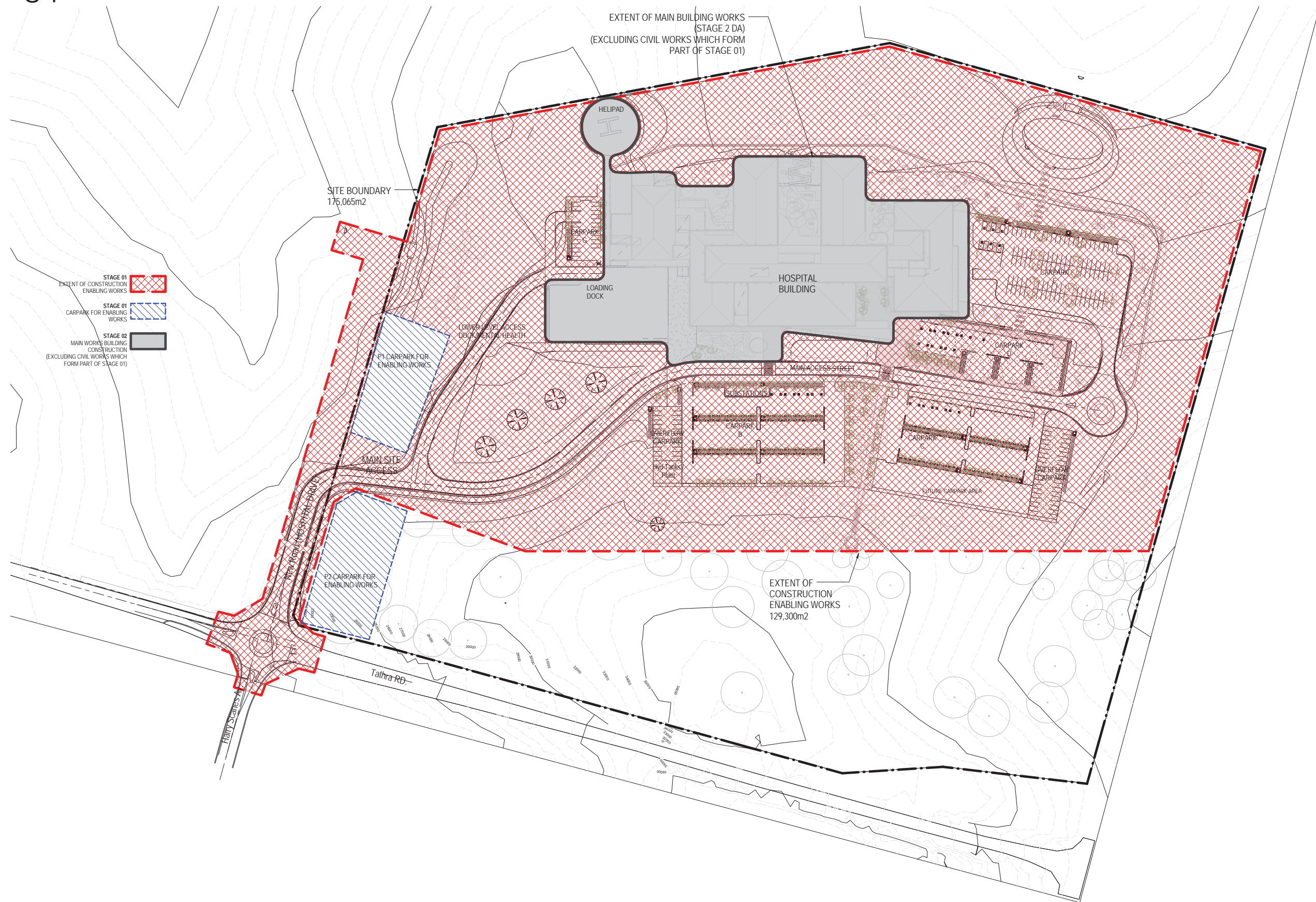


**VIEW F**  
3D IMPRESSION FROM SOUTHERN  
NEIGHBOURING RESIDENCES



**VIEW E**  
3D IMPRESSION FROM WESTERN  
NEIGHBOURING RESIDENCES

# Staging plan



- STAGE 01  
EXTENT OF CONSTRUCTION ENABLING WORKS
- STAGE 01  
CARPARK FOR ENABLING WORKS
- STAGE 02  
MAIN WORKS BUILDING CONSTRUCTION (EXCLUDING CIVIL WORKS WHICH FORM PART OF STAGE 01)



BVAArchitecture

STAGING PLAN

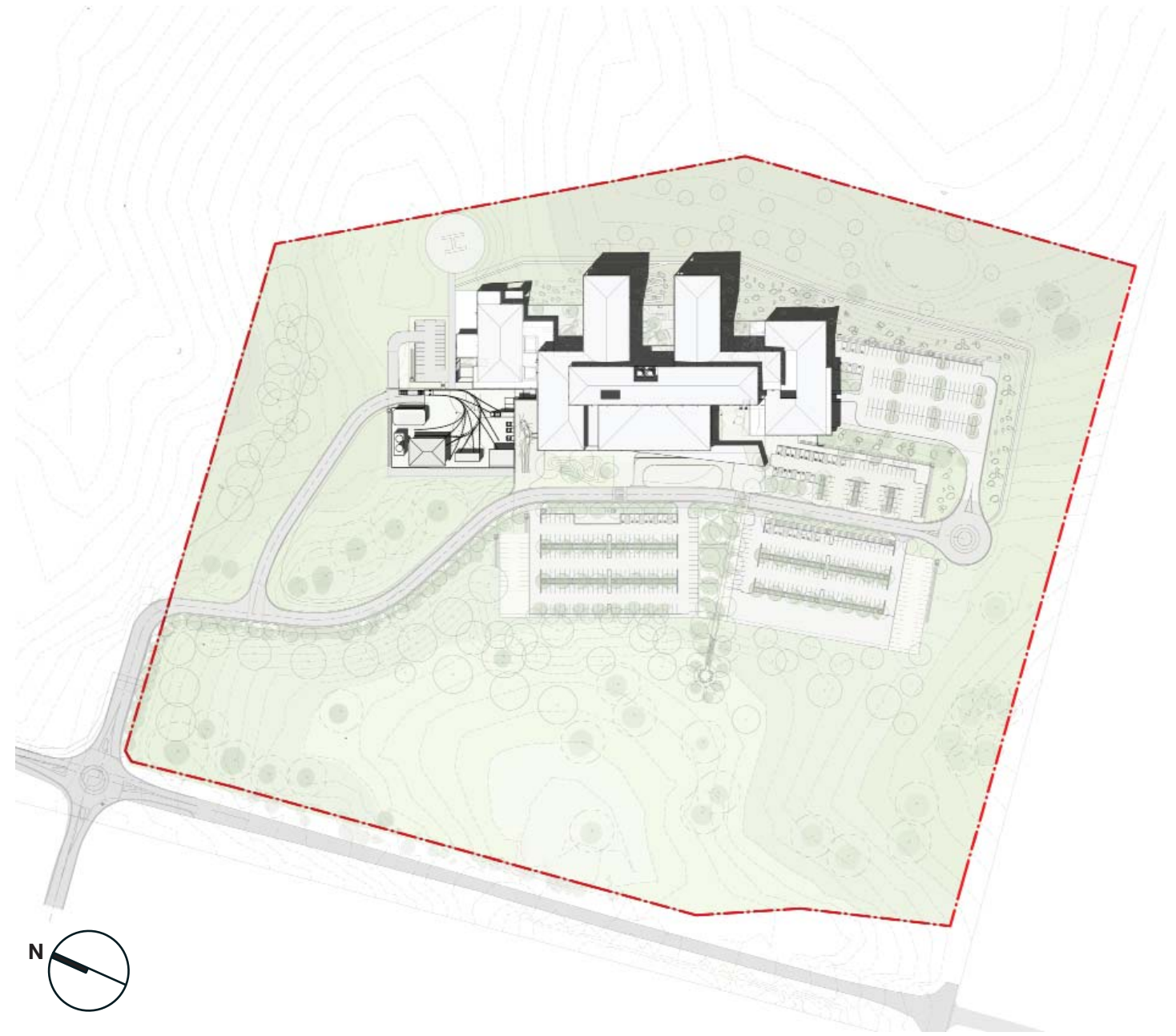
SK\_104 12.10.2012 1.1000@A1

12/10/2012 3:18:59 PM  
c:\REVIT\_LOCAL\2012\110005-AR-BDH-Site\_d\staging.mxd

# Solar access study Summer Solstice



DECEMBER 21, 9:00 AM



DECEMBER 21, 3:00 PM

# Solar access study Autumn-Spring Equinox



SEPTEMBER 21, 9:00 AM



SEPTEMBER 21, 3:00 PM

# Solar access study Winter Solstice



JUNE 21, 9:00 AM

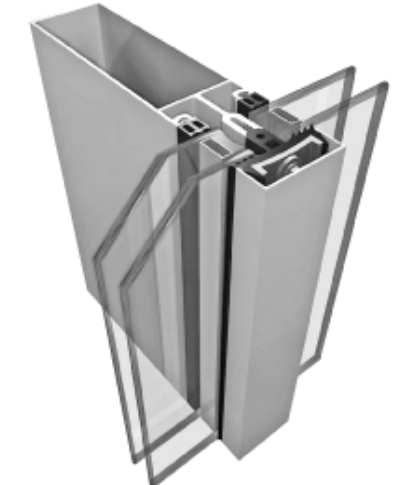
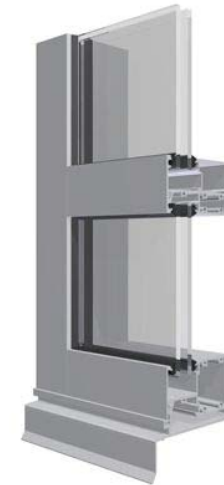


JUNE 21, 3:00 PM

# External Materials Schedule

- TYPE 1: METAL WALL PANEL
- TYPE 2: RENDERED WALL SURFACE
- TYPE 3: UNITIZED WINDOW PANEL ELEMENT
- TYPE 4: CURTAIN WALL GLAZED PANELING
- TYPE 5: ALUMINUM VENTILATION LOUVRES
- TYPE 6: MASONRY WALL
- TYPE 7: TIMBER CLADDING
- TYPE 8: METAL SCREEN

- ROOF TYPE 1: METAL ROOF SHEETING WITH EAVES GUTTER
- ROOF TYPE 2: CONCRETE SLAB WITH MEMBRANE + STONE BALLAST



TYPE 1



TYPE 2



TYPE 3

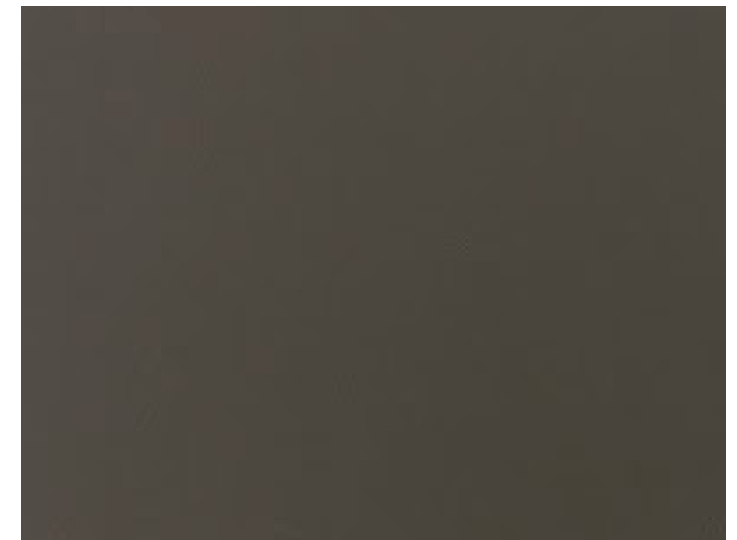
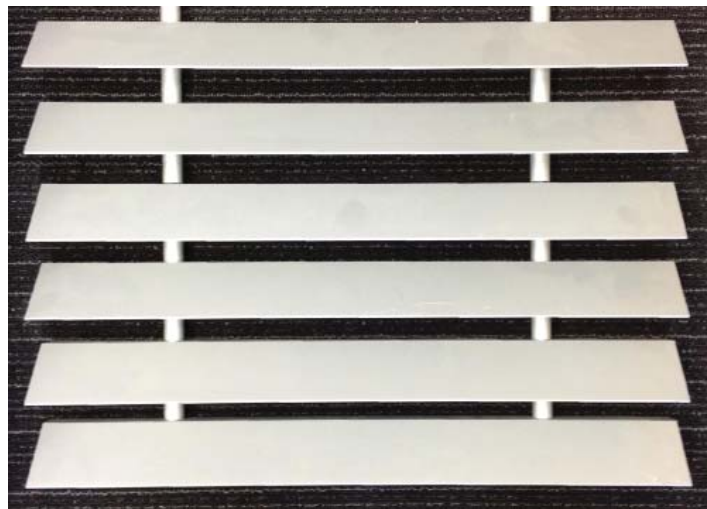


TYPE 4

# External Materials Schedule

- TYPE 1: METAL WALL PANEL
- TYPE 2: RENDERED WALL SURFACE
- TYPE 3: UNITIZED WINDOW PANEL ELEMENT
- TYPE 4: CURTAIN WALL GLAZED PANELING
- TYPE 5: ALUMINUM VENTILATION LOUVRES
- TYPE 6: MASONRY WALL
- TYPE 7: TIMBER CLADDING
- TYPE 8: METAL SCREEN

- ROOF TYPE 1: METAL ROOF SHEETING WITH EAVES GUTTER
- ROOF TYPE 2: CONCRETE SLAB WITH MEMBRANE + STONE BALLAST



TYPE 5

TYPE 6

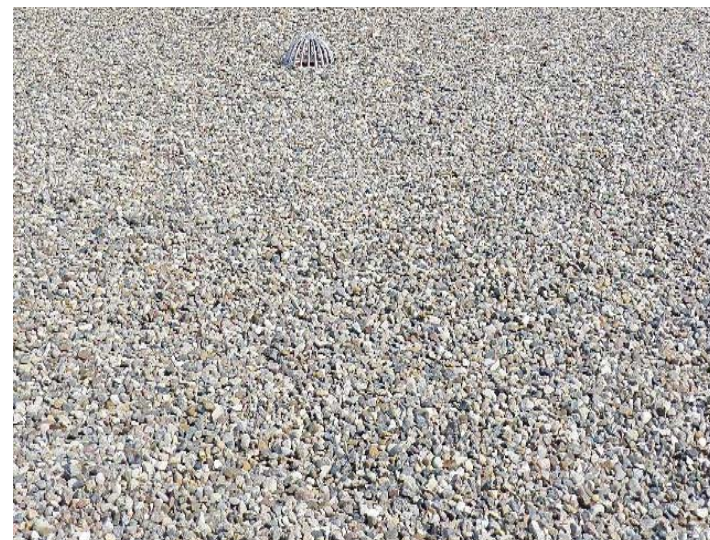
TYPE 7

TYPE 8

# External Materials Schedule

- TYPE 1: METAL WALL PANEL
- TYPE 2: RENDERED WALL SURFACE
- TYPE 3: UNITIZED WINDOW PANEL ELEMENT
- TYPE 4: CURTAIN WALL GLAZED PANELING
- TYPE 5: ALUMINUM VENTILATION LOUVRES
- TYPE 6: MASONRY WALL
- TYPE 7: TIMBER CLADDING
- TYPE 8: METAL SCREEN

- ROOF TYPE 1: METAL ROOF SHEETING WITH EAVES GUTTER
- ROOF TYPE 2: CONCRETE SLAB WITH MEMBRANE + STONE BALLAST



ROOF TYPE 1

ROOF TYPE 2