



LANDSCAPE ARCHITECTURE MASTERPLAN REPORT
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FOREST ROAD PRIVATE HOSPITAL, ORANGE

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prepared for

SAVAGE PROPERTY ENTERPRISES

G Final submission 30.01.08 RC

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INTRODUCTION

1.1 BACKGROUND

This Masterplan report has been prepared by mcgregor+partners for Savage Property Enterprises. The report covers the Landscape Architectural aspects of the proposed private medical campus on Forest Road, Orange (known as Forest Road Private Hospital Campus in this report). The site, which is approximately 6 hectares in area, is located on Forest Road in Orange Local Government Area. It is approximately 3km south of the orange CBD. The proposed development site is a former outdoor cinema, which ceased operation in 1984. The existing site roads, buildings, screen and associated infrastructure are to be demolished and construct a new, non-institutional medical campus. As indicated on the figure 01 on page 05 of this document, proposed development is to have four distinct precincts, the Hospital Precinct, the Medi Hotel Precinct, the Hostel/Cancer Care Precinct and the Residential Precinct. Together they will be integrated to establish a medical campus that will provide a broad range of facilities including those of a traditional private hospital as well as accommodation for patients, carers and their families and other associated amenities. The development is to be carried out in association with, and in parallel to, the redevelopment of the existing Bloomfield Public Hospital. The aim is to provide facilities for the private hospital close to the new regional hospital, with particular emphasis placed on providing medical, accommodation and support service facilities.

1.2 DRAWINGS

This report should be read in conjunction with the following Landscape Architectural drawings included with this Development Application:

SK01 Landscape Masterplan rev G [1:750]

2.0 SITE CONTEXT

As mentioned above, the proposed development is located on Forest Road in Orange Local Government Area and is approximately 3km south of the orange CBD. Most of the central and southern side of the site comprises a kerb and guttered bitumen parking areas and sealed entrance road. As noted in the flora and fauna report, prepared by Flora Search, approximately 50% of the site comprises grassed areas and is relatively denuded and degraded and contains very few significant plants. Those that exist are a mix of natives and exotic that range in age, habit and condition and differ in the way they contribute to the site's character. The project site is bound by Forest Road to the east, which provides direct access to the site. To the north east, adjacent Bloomfield Public Hospital, are The Country Club facilities including the golf course, and further north is the Sir Jack Brabham Park, a major recreational area for Orange. The former post office buildings and an area of cleared privately owned land adjoin the southern boundary of the project area. The land to the north and west of the project area is Crown Land currently used by the Orange Agricultural Institute for agricultural research. This land is primarily grazing paddocks with a scattering of remnant old growth eucalyptus trees. A band of large Monterey Pine trees, on the Agricultural Institute land, adjoins the northern boundary of the project site. Views from the project site across the Orange Agricultural Institute rural land to the west allow distant views to Mt Canobolas.

The adjacent Bloomfield Public Hospital to the eastern side of Forest Road is listed on the NSW State Heritage Register because of its high historic 'associative and aesthetic significance'. As noted in the 2006 Bloomfield Hospital Conservation Management Plan, the Bloomfield Hospital is 'generally relatively free of defined edges', however, 'the trees near and on the boundaries of the site provide screening of the buildings and activities of the Hospital from all the surrounding roads' and 'remain a major characteristic of the site'. Today an example of this can still be seen directly adjacent our Private Hospital Development site along the eastern edge of Forest Road which is lined with a mature formal avenue of *Quercus palustris* and *Populus deltoides* planted in the late 1930's early 1940's. These form a prominent visual and physical boundary to the existing Bloomfield Public Hospital.

As also noted in the 2006 Bloomfield Hospital Conservation Management Plan, the Bloomfield Public Hospital site as well as being listed on the NSW State Heritage Register is also listed on the State Heritage Inventory and The Orange LEP 2000, with the components including the entry gateway and Elm Avenue and grounds identified 'because of their significance'. Bloomfield Public Hospital is described in the State Heritage Inventory as a 'landmark in the area as a fine ensemble of buildings in a village-like landscape setting'. While some of the original detail of the landscape no longer exists, the Bloomfield Public Hospital still 'retains the integrity of its original layout and underpinning design philosophy as a therapeutic environment'. In its original form the landscape 'not only provided a restful outlook, but was also a place for patient activity and treatment'. Today, many of the original trees and shrubs throughout the site remain 'retaining the park like quality of the grounds'.

Figure 01, as shown below, indicates the proposed site precincts and their context.



Figure 01

3.0 SITE ANALYSIS

3.1 TOPOGRAPHY, GEOLOGY AND DRAINAGE

The site sits at an altitude of approximately 910m and as a result of its former use as a drive in theatre, is covered in some areas by bitumen. The project area is located on generally flat terrain falling gently towards the north west with slightly steeper slopes towards the rear of the site. As noted in the flora and fauna report, prepared by Flora Search, the site is underlain by tertiary volcanic basalt flows separated by layers of volcanic ash from near by Mt. Canobolas. The parent rocks in this geological unit may include alkaline olivines, trachytes and some shales and slates [Kovac et al. 1990]. The Geotechnical Investigation Report prepared by Jeffery and Kautauskas Pty Ltd, notes that the natural soils on the site are predominantly comprised of silty clay with some clayey silt and silty gravelly clay layers. It is also noted that basalt, of generally high strength, is also found on the site of depths ranging from 1.5m to 5.5m.

3.2 CLIMATE

The flora and fauna report, prepared by Flora Search describes the climate of the site area as generally mild with moderate maximum temperatures in summer, but cold winters and good rainfall. The mean daily maximum temperatures for Orange vary from 10.6 deg C in July to 28.2 deg C in January. The corresponding mean daily minimum temperatures vary from 0.5 deg C in July to 12.4 deg C in

January and February with heavy frosts being common in the winter months. As also noted in the flora and fauna report, the average annual rainfall is 877.6 mm and is spread fairly evenly throughout the year with slight winter dominance. The lowest rainfall tends to be in March and April, with averages of 62.5 and 58.6 mm. The highest average rainfall is in June (97.8 mm), followed by August (85.3 mm) and July (83.9 mm).

3.3 TREES

The arborist's report, prepared by Tree Wise Men Australia Pty Ltd, notes the particulars of the various trees on the site and its immediate boundary. The report identifies the most significant trees on or adjacent the site as Tree 57, 67 and 87 and suggests that these trees are representative of the remnant vegetation retained during former development of the site. Part of our site landscape strategy has been to retain the few native Eucalypts surveyed on and adjacent to the site where possible with new plantings from these same communities to be re introduced. Tree 87, Apple Box, Eucalyptus bridgesiana is located outside our site, on the Forest Road boundary. It is our wish to retain this tree if achievable but this will be subject to the adjacent future construction of the proposed intersection and associated road works to be carried out as part of the Bloomfield Public Hospital redevelopment. All existing trees derived from survey mapping are indicated on the drawing Landscape Masterplan sk01 rev G and nominated for retention or removal. For full detailed information on existing trees refer to the arborist's report prepared by Tree Wise Men Australia Pty Ltd.

3.4 FLORA AND FAUNA

Originally, the pre-european trees that dominated the site were Ribbon Gum and Apple Box as well as Snow Gum, Candle Bark, Black Sally and Black Gum, all of which belong to the Southern Tableland Wet Sclerophyll Forest class. The flora and fauna report, prepared by Flora Search, states that within this class the relevant community for the study area is the Eucalyptus viminalis/Acacia melanoxylon community. The site today comprises two man made vegetation associations, which are exotic grassland and tarmac communities. The natural plant community that formerly occurred on the site have been almost entirely eliminated by past land uses with the current vegetation best described as 'rank or overgrown exotic grassland with large amounts of dead, ungrassed foliage'. No endangered or threatened plant species were found on the site during the flora and fauna survey. The flora and fauna report, prepared by Flora Search, also states that on all measures, the habitat quality for the project area compares very poorly with the benchmarks and can be regarded as completely degraded. While the original native vegetation community has been almost entirely removed from the site, part of our design approach and philosophy is underpinned by a desire to re introduce and re establish elements of these communities within the new site context. As part of this thinking, it is intended that our design response will also establish new habitats and havens for native fauna and encourage their re introduction.

3.5 ACCESS

The site is adjacent to Forest Road to the east. It is bounded by two existing road reserves which run off Forest Road, one adjacent to the northern site boundary (Finneran Road) and the other adjacent to the southern site boundary (Kemp Road). The southern road reserve provided access to the former drive-in cinema on the site. As stated in the Traffic and Parking Report, prepared by John Coady Consulting Pty Ltd, proposed vehicular access for the development is to be off Forest Road via these two existing road reservations located adjacent to the northern and southern site boundaries. As also noted in the Traffic and Parking Report, prepared by John Coady Consulting Pty Ltd, the vehicular access arrangements, which are integrated with the future "sea-gull treatment" off Forest Road serving the Bloomfield Hospital, make provision for all turning movements at the southern driveway, while the right-turn movement from the northern driveway is prohibited.

4.0 DESIGN PHILOSOPHY

The design philosophy for the landscape architectural component of the project encompasses ecologically sensitive design through water management and species and material selection across the entire Forest Road Private Hospital Campus. The experience of the landscape has been carefully considered to support a diversity of spaces and user needs and provide a range of amenity. Our design approach is influenced and informed by the discipline of 'urban ecology', where the site design components are integral to the developments social, environmental and ecological systems. Furthermore, our approach is driven by a conscious desire to establish a landscape environment for The Forest Road Private Hospital Campus that, rather than be institutional in character, is instead a place that encourages and enhances health, recuperation and healing and facilitates positive sensory experience. It is to be a place of comfort that allows the user to interact with and observe references to the landscapes life cycles and to the sites contextual heritage, both natural and introduced. We do not see the site in isolation but rather as a sympathetic and complementary addition to the broader landscape making clear linkages and connections.

The Landscape Architectural approach can be summarised into the following key points:

- Satisfy statutory requirements and guidelines including permissibility and the provisions of relevant local environmental plans and State Environmental Planning Policies, including LEP 2000, SEPP 11, SEPP 55, Major Projects SEPP, BASIX, etc
- Establish a clear and harmonious interface between the proposed development and the adjacent historically and culturally significant Bloomfield Public Hospital forming a harmonious interface between the existing curtilage and any significant views to or from Bloomfield Hospital
- Create a balance with the existing significant historic planting of *Quercus palustris* and *Populus deltoides* on the Forest Road edge of the Bloomfield Public Hospital site through a sympathetic planting of *Quercus palustris* along our adjacent site boundary to form a coherent language to the Forest Road frontage.
- Make reference to the original design intent of the Bloomfield Public Hospital and it's enlightened underpinning design philosophy as a therapeutic landscape environment intended to provide a restful outlook and place for patient activity and treatment.
- Retaining as many significant existing trees as possible.
- Establish a perimeter planting to all other boundaries of locally indigenous plant communities that formerly occurred on the site to help re-link the site with its original ecological community context and encourage the return of native fauna.
- Establish a broader internal planting palette of locally indigenous plant communities that formerly occurred on the site to help re-link the site with its original ecological community context and encourage the return of native fauna.
- Use planting to control privacy, enhance view corridors, and provide shading and connectivity.
- Utilise planting to control thermal access to buildings.
- Maximise deep soil plantings.
- Establish a planting palette for the central hospital Health/Productive gardens of both native and exotic 'productive' species including fruit trees, herbaceous, aromatic and flowering varieties to allow therapeutic and interactive participation in the landscape by patients, staff, visitors and residents.
- Utilise/recycle where possible and appropriate materials from demolition of existing site elements and soil and basalt from excavation and re grading of site.
- Pedestrian networks and planting strategy to encourage the use of spaces intended for public access.
- Link internal and external spaces across entire site and within each precinct to establish connectivity and harmonious interface. Create 'outdoor rooms' and courtyards that link building and landscape.
- Create accessible pedestrian links throughout the development suited to the users.
- Implement water sensitive urban design [WSUD] principles across the site. Use water sensitive urban design principles to inform and enrich the design.

- Implement environmentally sustainable design [ESD] principles. Utilise ESD strategy as a central component of design approach.
- Planting to improve the dispersement of stormwater flows across the site.
- Simple materials selected to fit harmoniously with the existing site character and proposed architecture.

5.0 SITE PLANNING AND ORGANISATION

5.1 DEVELOPMENT PROPOSAL

The Forest Road Private Hospital Campus development proposal seeks to create a new 'non institutional' Medical Campus that encompasses a private Hospital Precinct, a Medi-Hotel Precinct, a Hostel/Cancer Care Precinct and a Residential Precinct. Included will be facilities ranging from those normally associated with traditional private hospitals. In addition, accommodation for patients, carers and their families to stay in a non-institutional environment will be provided. The arrangement of built form, road and pedestrian network and the private and public and communal landscape areas will establish a clear language of a balanced integrated development.

5.2 STREETSCAPE FRONTAGE

The design of the Forest Road street frontage establishes a harmonious interface between the proposed development and the Bloomfield Public Hospital while minimising the impact on the existing Forest Road curtilage and any significant views to and from Bloomfield Public Hospital. As previously mentioned in this document, Bloomfield Public Hospital is listed on the NSW State Heritage Register because of its high historic associative and aesthetic significance. As noted in the 2006 Bloomfield Hospital Conservation Management Plan, the Bloomfield Hospital is 'generally relatively free of defined edges', however, 'the trees near and on the boundaries of the site provide screening of the buildings and activities of the Hospital from all the surrounding roads' and 'remain a major characteristic of the site'. The existing significant planting of *Quercus palustris* and *Populus deltoides* on the eastern edge of Forest Road are an example of this planting and will not be impacted upon. A balanced relationship and legibility will be established through the creation of a sympathetic planting of *Quercus palustris* along the eastern site boundary to create a coherent language to Forest Road frontage. These will have an understorey planting of native groundcovers and grasses allowing the landscape to flow continuously from the street edge into the site. A break in the tree planting will be made adjacent to the central Health/Productive Gardens to allow permeability into the Hospital site and maintain distant views to Mt Canobolas. A low screen planting will also be planted along the entire Forest Road site boundary to help consolidate the frontage. Carparking, as identified in the Traffic and Parking Report, prepared by John Coady Consulting Pty Ltd, is proposed along the Forest Road street frontage access road. This parking will be framed on the eastern edge by the planting of *Quercus palustris* and native understorey groundcovers and grasses and to the west by native trees set in decomposed granite to allow easy pedestrian movement to and from the building edge. At selective points biotope/bioswale planted with native aquatic grasses and sedges will capture stormwater run off from the carpark and road surface areas slowing the water flow and allowing greater bio filtration.

5.3 VEHICLE AND PEDESTRIAN ACCESS

As previously stated in this document, the Traffic and Parking Report, prepared by John Coady Consulting Pty Ltd, proposed vehicular access for the development is to be off Forest Road via these two existing road reservations located adjacent to the northern and southern site boundaries. These access points help establish the address to the development. The internal roads of the development sit within the robust landscape and provide a low speed environment that facilitates simple, clear and legible access to all site facilities. The associated pedestrian networks gives connection for the use of spaces intended for public access and links internal and external spaces across the site and within each precinct to establish successful permeability and interface. Accessible pedestrian links throughout the development are suited to the wide range of users.

5.4 CARPARKING

As stated in the Traffic and Parking Report, prepared by John Coady Consulting Pty Ltd, parking spaces have been provided across the site to meet each building programs specific needs. These parking bays are seen as intrinsic to the landscape and are integrated into the landscape design as a whole allowing a harmonious language to emerge. All parking areas are framed in some way by significant tree and native grass, shrub and groundcover planting to help heighten and enrich the arrival experience. In addition, a network of planted bitope areas are connected with the parking zones to facilitate greater on site stormwater retention and bio filtration from these zones. Permeable paving is also proposed for the individual bays to minimise storm water run off and encourage further stormwater bio filtration levels.

5.5 COURTYARDS/GARDENS/PARK/PLAZA

A range of specific landscape zones have been created across the Forest Road Private Hospital Campus to accommodate the wide range of uses and users. These key areas are as follows:



The Hospital Health/Productive Gardens uses a palette of productive and therapeutic species that allow and promote direct interactive participation in the landscape by patients, carers, residents and visitors alike. Individual beds are arranged to allow the user to meander leisurely through spaces or to find a secluded corner to sit in quiet conversation or solitary reflection. The planting palette consists of both native and exotic species including fruit trees, herbaceous, aromatic and flowering plants that express and celebrate natures changing seasonal life cycle. The gardens link the Hospital and Medi-Hotel and make reference to the sites contextual heritage, both natural and introduced. A simple covered pedestrian bridge/path allows users to pass through and across the garden from the Hospital to the Medi-Hotel in comfort during inclement weather while still being able to fully enjoy their immediate surrounds as well as distant views of Mt Canobolas to the west. Along the southern edge of the Hospital a series of elevated architectural growing frames form part of the building façade. Planted at their base with a range climbing species the frames read as green canvases, that give vibrant relief to the building elevation and enhances the garden experience below.

- The Hospital Health/Productive Gardens uses a palette of productive and therapeutic species that allow and promote direct interactive participation in the landscape by patients, carers, residents and visitors alike. Individual beds are arranged to allow the user to meander leisurely through spaces or to find a secluded corner to sit in quiet conversation or solitary reflection. The planting palette consists of both native and exotic species including fruit trees, herbaceous, aromatic and flowering plants that express and celebrate natures changing seasonal life cycle. The



beneath a tree canopy from where they make their way into the hospital either via a series of simple walkways that cross the central biotope/bioswale garden area or via a designated partly covered pedestrian path that runs along the building edge.

- The Hospital Central Carpark serves as one of the major entry points for the hospital. It is a single skin piazza/courtyard within which car parking is arranged around a central sunken biotope/bioswale zone planted with native trees and aquatic shrubs, grasses and sedges. This zone is an important part of the sites overall water strategy, capturing stormwater run off from the car parking bays, pedestrian and road surface areas and surrounding rooftops and allowing it to slowly bio filtrate into the soil profile. The entry parking experience allows those arriving to park



- The Hospital Gravel Courtyard and Shade/Fern Courtyard provide the users with a range of amenity and experience. The northern gravel courtyard is seen as an outdoor room that connects the building and landscape, establishing a relationship that adds to the overall connectivity of the built form and its landscape

setting. This is a minimal space that serves as a stage. A dense screen planting behind which many of the hospital services are housed encloses the northern end of the courtyard. The ground plane is finished with semi permeable gravel that allows storm water to bio filtrate into the sub soil. A stone pad with a single canopy tree and seating edge is positioned in the south eastern corner of the courtyard to maximise the capture of the sun's rays. The space is completed by a tightly planted formal twin row of trees along the western edge, which help to establish a balance of scale with the building and forms a green roof under which moveable seating is scattered. The southern shade/fern courtyard is a different type of space, which serves as a movement system, multiple entry zone and seating area. This space is positioned on the southern side of the Hospital and receives minimal sun allowing for the creation of a green room planted with a selection of native and endemic shade tolerant trees, ferns shrubs and ground covers.



courtyard is framed by a planted biotope/bioswale which bio-filtrates first flush roof water and pedestrian storm water run off.

- The Medi-Hotel Pool Courtyard is a secluded central island floating in lush garden environment and is accessed from a single point on its eastern edge. While it allows privacy to the user it also allows appealing and inviting glimpses from the restaurant on the eastern edge and the medical suites on the southern and western edges of the surrounding building. A lawn area and sun deck with a shower and seating area add to the pool amenity with the pool itself positioned to maximise solar access throughout the day. The outer edge to this pool



- The Medi-Hotel Lawn Courtyard is a simple open area and provides a flexible open green space between the eastern and western wings of the medi-hotel. The outer-planted biotope/bioswale that frames the pool courtyard extends into the lawn area linking the two spaces serving a similar role. A handful of strategically positioned canopy trees establish a balance of scale with the building edge and give shade relief from the sun to users in the hotter months. This open green space allows passive recreation and amenity and serves as an flexible outdoor room.



- The Medi-Hotel Plaza sits between the Health/Productive Gardens and the Medi-Hotel Central Lawn Courtyard and establishes an important link and landing area between the two and the broader site as a whole. The plaza serves as the platform for the proposed centrally positioned café/retail building with its north facing external deck area that reaches out into the productive/health garden. This building anchors the plaza space and establishes a focal point around which fluid connection and movement to and from the space is made

possible. Carefully positioned endemic canopy trees with an understorey planting of native grasses and groundcovers puncture the plaza floor helping to frame the café/retail building while providing valuable relief from the sun's rays.



allows a flexible range of amenity and recreation and which shares much in common with its immediate rural setting. A considered scattering of endemic trees is used at selective points to accent pedestrian paths echoing remnant endemic vegetation clusters reminiscent of the wider landscape beyond to the west.

- The Park/Open Green Space sits between the residential and hostel precincts built form. It makes a strong axial link with the Hospital Health/Productive Garden to the east although it is quite different in character. As with the Hospital Health/Productive Garden, views from the park across the western rural, pastoral landscape to the distant Mt Canobolas are preserved and celebrated. The park serves as a public open space for the entire development with its composition of individual fields serving as a unifying communal place. It is a less manicured space that



decomposed granite, timber, concrete with recycled aggregate and seating elements are to be used and arranged in each landscape area to create both intimate and more communal spaces that facilitate a broad range of amenity.

- The Hostel Communal Landscape/Gardens and Residential Communal Landscape/Gardens will both provide flexible spaces and experiences while incorporating sound environmentally sensitive design [ESD] and water sensitive urban design principles. Each landscape, while different in composition, will provide a defined zone created from a simple palette of materials. Considered placement of pedestrian entry points and the planting of endemic trees, shrubs, grasses and groundcovers will address connectivity and establish a robust planting palette. Lawn,

5.6 PLANTING

One of the desired outcomes of the landscape proposal is a replenishment of the species that once flourished in the area. The overall planting approach will help establish a strong landscape identity for the site that is sympathetic with the remnant vegetation of the area while selective zones such as the Health/Productive Gardens and Forest Road Tree planting will make greater reference to the historical western heritage of the area. Native planting will be selected from species local to the area [endemic] and those native to the broader region. These native and endemic species will assist in reducing water requirements, as the plants are adapted to local conditions, help consolidate the local endemic plant gene pool and assists in the overall replenishment and re invigoration of local flora and fauna communities. They will also, as a result of their appropriateness to the site, establish themselves more rapidly and ultimately provide a more hardy and vigorous plant community that will achieve better growth and assist in minimising long term maintenance requirements. The plant selection will provide a palette that is both robust and diverse in form, colour, habit and character allowing flexibility and variety in its application and use.

5.7 WATER SENSITIVE URBAN DESIGN

The storm water design is intrinsically tied to the landscape architecture of the site. The approach to water sensitive urban design [WSUD] to utilise and enhance the natural site conditions and to direct stormwater surface flows into and through constructed ecologies. Traditional drainage pipes and systems that avoid surface infiltration are to be minimised. Across the site, water sensitive design

principles have been used to inform and enrich the design with a starting point that recognises water as a precious commodity and a valuable resource that should not be wasted or taken for granted. All components of the design proposal including buildings, roads, car parking, open space and associated infrastructure have been integrated within an overall stormwater concept. This includes the use of bioswales/biotopes, wetlands and other constructed ecologies, which can detain and retain stormwater onsite. Our approach creates a centralised water management strategy that interfaces with the architectural, hydraulic and civil consultants to achieve an integrated stormwater design throughout the site. Where possible, road, car parking and pedestrian zone storm water runoff is directed into landscape bioswales/biotopes to filter and retain as much stormwater as possible within the site. In addition, the landscape will receive runoff from most of the building roof areas. During rain events, initial 'unclean' first flush roof water will be directed into defined bioswale/biotope landscape areas where it will be 'polished' and cleaned as it bio filtrates through the soil profile. These bioswale/biotope are to be planted with native species, which will slow the water flow and maximise the stormwater bio filtration process. Further 'clean' roof water runoff will be directed to designated on site storm water detention tanks. This stored roof water can potentially be utilised to meet some future irrigation, toilet flush and laundry requirements.

In summary, water is used as a resource in the following ways:

- Wetland zones in naturally existing low lying areas are to be created and planted with suitable indigenous/native plant species to bio-filtrate water and establish habitats for native fauna.
- Drainage biotope/bioswales are utilised to bio-filtrate water and slow discharge into the stormwater system. These are located in a number of locations across the site including the following:
 - central biotope/bioswales with native planting to internal central road
 - biotope/bioswales integrated with parking bays to external boundary road
 - biotope/bioswales to residential communal courtyard
 - biotope/bioswales to hostel communal courtyard
 - biotope/bioswales to medi-hotel pool courtyard and lawn courtyard
 - central biotope/bioswales to main hospital parking area
- Permeable and semi permeable pedestrian surface materials are to be used in a number of areas, including the central Hospital 'Health/Productive Garden', the Hospital 'Gravel Courtyards' and in all parking bays across the site to minimise stormwater run off and maximise filtration
- First flush roof water from buildings is to be directed to filtration biotopes/bioswales.
- Clean roof water from buildings is to be collected into storage tanks and re-used across the site.

For further detail refer to the storm water management diagram on drawing SK01 rev G Landscape Masterplan [1:750]

5.8 ESD PRINCIPLES

We have strived to implement design principles that achieve an equitable balanced outcome for ecology, amenity and aesthetics. An environmentally sustainable design [ESD] strategy is a central component of our initial design initiatives. These initiatives include:

- consideration of walking facilities and wheelchair facilities
- water recycling and water sensitive design initiatives.
- specification of salvaged, recycled and reclaimed materials wherever possible
- designing for simple, efficient maintenance
- select native and endemic plant species with the goal of both improving biodiversity and linking

ecological communities and achieve minimal irrigation requirements once established.

6.0 MATERIALS

6.1 MATERIALS PALETTE

Where possible the landscape construction will utilise recycled materials and will use materials with low embodied energy. The materials palette used is simple, utilising natural materials that are apt for their contextual setting and character and in harmony with the proposed architecture.

7.0 FUTURE CHARACTER

7.1 FUTURE CHARACTER

The proposed development provides and accommodates social and environmental amenity to a wide range of users in a non institutional setting. Carers, patients, family members, employees, residents and, potentially, the greater local community including those utilising Bloomfield Hospital are all able to access, interact with the new medical campus. The landscape architectural approach encourages the direct participation of these varied user groups in utilising the medical campus with its park, gardens, courtyards and other detailed landscape areas and facilities. The framework of exotic tree to Forest Road and indigenous trees and planting to the rest of the site both reduces built-form presence and links the site with its locality through historical reference and the re-instatement of vegetation species original found to the area. The retention of the few significant existing trees provides amenity from day one. The easily accessible internal park, gardens and courtyard spaces allow direct experiential participation and stimulus by residents, carers, patients and visitors alike in spaces that provide an awakening of the senses through touch, smell, scale, seasonal change and simple visual interest and character. The proposed development for the site establishes a rich program that is highly accommodating of its mixed community, and provides a resource and environment that will add to and enhance the local character.