SITE PRINCIPLES. Principle 7 – building materials and colours

Provide materials and colours that respond to the surrounding environment and that create interest and pattern.

Objective

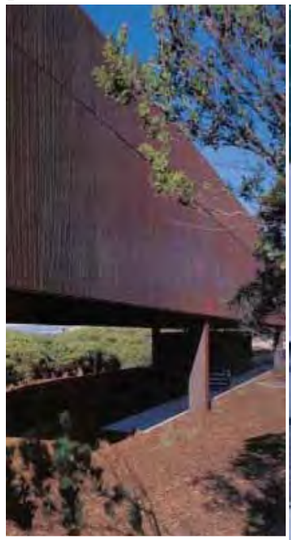
To achieve a high standard of visual appearance that will be aesthetically pleasing to future occupants and vistors but that reflects the existing nature of the area. The objective is to use colours and materials that will contribute to the Trinity Point experience.

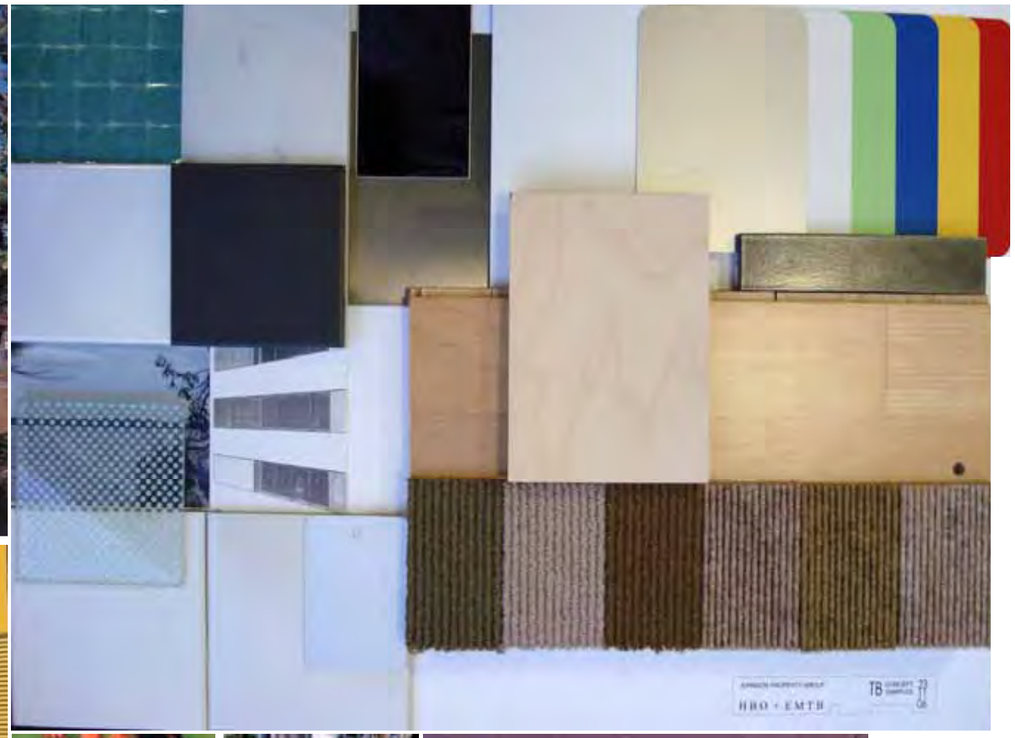
Guidelines

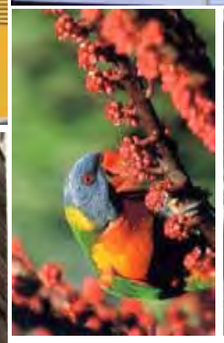
• Materials celebrated within the iconic higher building forms should include glass, steel, timber and copper, be distinctive and contribute to the buildings' roles as 'markers' within the site, locality and lake. Each of the three higher building forms is to be predominantly finished in one of these materials, and different to the predominant material of the others.

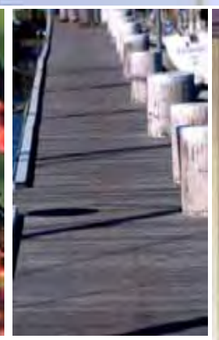
• Materials of other buildings on site will include distinctive accent features of steel, glass, weathered timber, metal and aluminum – with surfaces exhibiting natural patinas as they weather – amongst the primary material of trowelled texture finish of granostone or similar

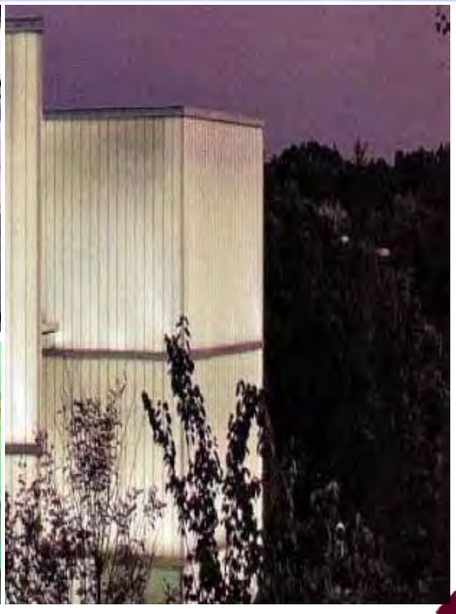
• Built form colours to be generally natural, with bold accent colours drawing on colours in nature – reds, greens, yellows, blues of parrots, soft yellow of blossoms, reds of bottlebrush, eucalypt leaf green, browns and earth tones.











SITE PRINCIPLES. Principle 8 – vegetation

To provide for reinstatement and rehabilitation of vegetation to mitigate against any proposed removal of endangered ecological communities as a result of the Concept Plan proposal.

Objective
To acknowledge that it is appropriate to demonstrate no nett loss of biodiversity against an improve or maintain outcome where any clearing of endangered ecological communities is proposed.

Guidelines
• A small portion of disturbed *Casuarina glauca Open Forest* (Swamp Oak Floodplain Forest) (0.04ha) will be required to be removed for essential marina infrastructure (boat lift) where it crosses the 6(1) zoned land. This vegetation is an endangered ecological community (EEC). The boat lift has been located in an area where the shrub layer and groundcover typically associated with this EEC is absent, replaced by exotic pasture grass species.

• To achieve the vegetation objective, the following measures are to be incorporated into requirements for the project:

- Re-instatement of 0.05Ha (500m2) of SOFF
-Additional assisted rehabilitation within the north-eastern portion of the unnamed bay situated at the north of the study area.

Comment: Refer to Figure 10. There is a high degree of success expected for the re-instatement of the SOFF given the apparent concurrent topographic, hydrological and situation of the selected area. This reinstatement and assisted rehabilitation is in addition to any previous commitments that have applied in the study area, which have been focused around the southern edge of the unnamed bay.

- Conduct weed control throughout the vegetation in the remaining 6(1) zoned lands adjacent to the concept plan site. This will encourage natural regeneration within these communities (which are also endangered ecological communities).

- Include further infill planting of native groundcover, shrubs and trees throughout the vegetation in the remaining 6(1) zoned lands.

This work is to be carried out by qualified bushland regenerators working under guidelines set out in a Vegetation Management Plan. The Vegetation Management Plan will provide detailed information on weed control, access control, rubbish control, planting, monitoring and timing of revegetation works to be conducted within the retained vegetation and the areas to be revegetated within the study area. Revegetation must be done in accordance with best practice measures, principles and specifications as outlined in Nationally accepted guidelines (where appropriate). Any replanting of native species must use specimens of local provenance.

Figure 10 – Vegetation Rehabilitation

SITE PRINCIPLES. Principle 9 – landscape

Provide a landscaped outcome that enhances the existing site conditions and proposed future development of the site.

Objective

Build on the existing landscape opportunities that are available as well as create new opportunities to provide a high level of amenity to future occupants and users of the site and that protects and augments the landscape quality of the locality. The landscape to be fully integrated with the development to create a harmonious outcome that considers the built form and the natural environment.

Design Rationale

The design seeks to provide a transition from the lake's uneven edges in the east to the urban structure in the west. This is done by having the landscape design grade from an untouched foreshore comprised exclusively of indigenous plants and natural elements through to designed gardens comprised of exotic plants and sophisticated materials. Between the two extremes occurs the boardwalk where the public interfaces with the private, native plants blend with exotics and the freeform eases into the formal. The public is encouraged to use the boardwalk by providing an all-weather surface that is easy and convenient to use whilst providing numerous opportunities to move into the adjoining foreshore area that is managed to keep and prolong its natural integrity.

Guidelines

<u>Foreshore zone</u>

- The proposed breakwater and marina access to be provided in a manner that ensures any desired works by public authorities within the 6(1) zoned land (such as a separate pedestrian access along the lake edge within the 6(1) zone) are not precluded or compromised.
- Public access across the proposed marina travel lift area within the 6(1) zoned land being managed to ensure public safety when the travel lift is in operation with details of proposed management measures being provided with future project applications. Design of area to not preclude or compromise all pedestrian access at all other times.
- Sundial and grotto to be retained
- Low fencing to be provided within vegetation around Bluff Point to minimise access to steep edges
- The proposed development is not to impact on the native vegetation edging the shallow unnamed bay
- Where agreed to by Council, landscaping may extend into the foreshore zone such as native grasses and the like.
- To be consistent with vegetation principles

Comment: The Concept Plan does not propose to design or construct additional works in the 6(1) zoned land such as separate pedestrian access along the lake edge. As identified in the Opportunities and Constraints Plan, there are numerous existing constraints that make the provision of separate pedestrian access solely within the 6(1) lands challenging – including topography + vegetation + cultural heritage – which public authorities will need to consider separate to this proposal. The Concept Plan provides an alternative via boardwalk within the site, and simply seeks to not preclude the ability for Council to further investigate concepts within the 6(1) lands.

Figure 11 – Landscape Strategy

SITE PRINCIPLES. Principle 9 – landscape

Boardwalk & Lineal Passive Recreation Zone

- Publicly accessible boardwalk (3-6m wide) in variety of finishes to extend around the southern and eastern edge of development through to the Village Square, between the foreshore and the edge of built form.
- Boardwalk to provide universal access.
- Lineal passive recreation space created between foreshore and boardwalk, with turf and edge mass planted bands of native ground covers and low scale plantings in conjunction with stormwater swales.
- Cultural Plantings between boardwalk and foreshore in southern part of site to be retained.

Comment

The Boardwalk will provide for the first time on this site public access to the Lake view. From the Port Village square, the Boardwalk moves gently up the sloping ground to the important viewing point of Bluff Point. The Boardwalk experience will build upon the already unique Lakeside character by developing a complex graphic patterned approach that will enhance the special character and nature of the experience. The Boardwalk will move relative to the adjacent built form – courts and provide full access for the public that enriches (public sculpture and nature) and informs (heritage, culture and environment). The path follows the Lake edge, gently rising towards Bluff Point. Detailed design will include pause points, seating, ramps and rails, landscape elements and provisions for pedestrians and cyclists to share the facility. Bike racks are provided at the Village Square. The Boardwalk will vary from 3 to 6 metres in width, responding to natural features and node points along its path. Materials will generally emulate those used at Sydney Olympic Park and proposed at Caves Beachside is good quality, well detailed, enduring modern design that will develop a sense of pride and wonder at this special location.

The edges of the Port/ Village Square will on the edges from natural ground level to 'Square' level be enclosed in a horizontal open timber batten treatment. On the West North and South the Handrail system will be glass & metal with some sections extended to 1800 as wind screen elements. The eastern edge addressing the Marina Lake interface will be without boundary other than a small level change at the site boundary beneath the boardwalk / square at this point the 'wave attenuation barrier' will be concealed. Generally excluding crossing points for the Marina foreshore, the site will have planting regenerating & stabilising the eroding lake edge.

East-West Pedestrian Links

- Publicly accessible pathways (2-5m wide) to be provided between building clusters. Detailed design to demonstrate how high quality pedestrian experience is to be provided.
- Bands of plantings using hardy native plants along sections of pathways
- Native indigenous tree groupings to be provided at western and eastern ends of pathways to Trinity Point Drive and to boardwalk
- Investigation is required on the ability to retain one or more of the existing remnant forest red gums in the central part of the site.

Comment

The east-west links at the key public streets cross the site in wide 15m landscaped paved spaces accessing the N.S. boardwalk lake views and foreshore tree plantings. From Bluff Point (extensive views) to the Port/Village 'Square' they provide a 'place' to "get on" or "get off" the lake boardwalk as such they transition from the public footpath/road of the Kendall Grange development to the pedestrian /landscape of the Trinity Point site. It is important to appreciate the detail planning proposed where "ground" level apartments "facing the public street" are raised 900 above the street level with courts "fronting" the street and "backs" garden courts facing the internal main courts.

This arrangement in principle will ensure both privacy for apartments with a quality edge for these pedestrian street extensions.

Similarly the main courts have a hierarchy of spaces that a set relative to one another and the boardwalk to create an understanding of accessibility privacy and awareness.

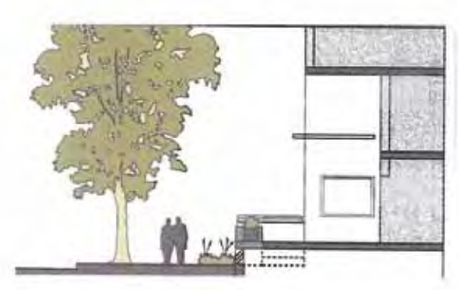
Internal Courts and Buildings

- Provides communal active and passive space for surrounding building residents
- Transitions from western to eastern end of courts from strong graphic form and high smooth finishes and materials, blending into softer elements, rawer materials and forms, low scale native plantings and pools in deeper soil zones.
- Investigate xeriscape garden plantings – rooftops

Materials and Hard Landscape

- Material pallete to define consistent sense of space through public domain, with 'natural' and enduring finishes
- Provide consistent signposting/wayfinding, interpretative signage, seating, furniture, litter bins, bicycle parking, handrails and the like throughout site
- Lighting strategies to provide indirect subtle lighting
- Incorporate public art strategy celebrating strong qualities of the site
- Develop a site interpretation strategy that will assist in creating a sense of place and responsibility for environmental and indigenous and cultural heritage of the site

These landscape principles and strategies are to be incorporated and detailed in Project Applications.



Building – public street interface

SITE PRINCIPLES. Principle 10–roads, vehicular access & parking

Provide for adequate, safe and efficient vehicular access to and around the site, ensuring adequate provision of parking.

Objective

To ensure adequate arrangements are in place to access the site, move through the site and park based on the likely traffic volumes and parking generation and accounting also for service vehicles in order to provide for the amenity and convenience of future occupants and visitors to the site and to ensure no unreasonable off site impacts.

Guidelines

A number of external intersections have been identified as requiring upgrading as a result of cumulative traffic associated with other traffic growth or anticipated growth in the locality (and other approvals), in some cases including a component of traffic from the Trinity Point Marina and Mixed Use Development. These are:

- **Macquarie Street and Fishery Point Road (to signal control);**

The RTA has been collecting contributions for this upgrade under a Transport Infrastructure Contribution Deed with each new development that contributes to this intersection. RTA collects monies on a per lot created basis. Based on Council's estimates of future development scenarios on the Morisset Peninsula area (including Trinity Point), the Trinity Point Marina and Mixed Use Development's proportion of impact on this intersection is 17.5%".

- **Fishery Point Road and Station Street (to signal control);**

This intersection upgrade has already been triggered and approved by Council as a requirement for a separate development proposal ('Scarborough Gardens') (DA 687/2007). The works are being undertaken by that developer, with co-funding by Council of 36% of works or $97200 (whichever is lesser).

- **Fishery Point Road & Morisset Park Road (to single lane roundabout control)**

This is not currently part of any approved intersection upgrade. Initial traffic analysis outlines that this intersection will need to be upgraded in the future to roundabout control. Based on Council's Urban Development Program for the Morisset Peninsula (including Trinity Point), the Trinity Point Marina and Mixed Use Development will increase the flows at this intersection by approximately 20%.

- **Morisset Park Road and Charles Avenue (to local street roundabout)**

This intersection upgrade has already been triggered and approved by Council as a requirement of Stage 7 of the adjoining residential subdivision (DA 2293/2006). The works are to be undertaken wholly by that developer. In addition, the same approval requires the provision of kerb and gutter on the southern side of Morisset Park Road from the new roundabout to the existing kerb.

Agreement will need to be reached with the relevant road authorities regarding external road upgrades relative to the Concept Plan and future applications

SITE PRINCIPLES. Principle 10–roads, vehicular access & parking

Figure 12 demonstrates the key access and parking principles for the site.

These include:

- Main access to site off Morisset Park Road and along Trinity Point Drive (to be constructed as part of the adjacent residential subdivision)
- Main roundabout at Trinity Point Drive required to distribute traffic into marina mixed use village, or south to residential access.
- Bus stop to be provided and constructed as part of adjacent residential subdivision for dual purpose of general public transport and tourist bus stopping (time limited)
- At grade parking for Mixed Use area, under raised Village Square and built form
- Basement parking for Residential area, with up to three access points. Detail design to investigate siting of access points relative to traffic engineering + urban design requirements, with the latter considering the desire for such access to not detract from the quality and function of the thru site linkages as public connections through to the lake.
- Parking numbers to be provided on site to comply with Lake Macquarie Development Control Plan 1 and AS 3962-2001 (Guidelines for the Design of Marinas). Specifically for the marina (berths, workshop/maintenance, marina operations, management + administration areas and marina lounge/amenities), parking is to be provided at a rate of 0.3 spaces per berth, plus 0.5 per FTE staff member. Additionally, where it is demonstrated that vehicle parking will be used to access a variety of activities within the development, the total parking provision may be reduced.
- A Parking Management Strategy should be prepared to manage parking on site, including during peak events within the marina and mixed use village
- The proposed development is to make appropriate provision for service vehicles including the delivery of goods and collection of garbage taking into account swept path requirements of those vehicles
- The proposed development being designed to minimise potential pedestrian and traffic conflicts.
- The approved road carriageway along the western site boundary is to be investigated for indented parking bays between street trees given the length available due to limited vehicle crossing points

Figure 12 – Access Principles

SITE PRINCIPLES.
Principle 11 –water management

Ensure stormwater runoff is managed to have no impact on the receiving environment.

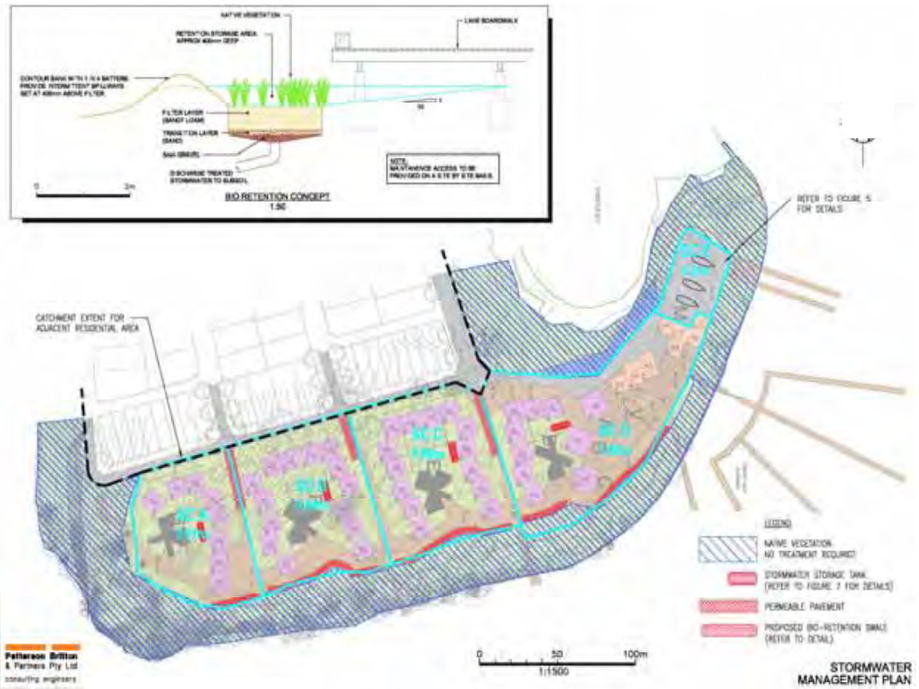
Objective
To provide preventative measures to ensure no impact on aquatic environment and lake water quality and to provide for water harvesting and re-use opportunity.

Guidelines
Figures on this page are conceptual stormwater management plans incorporating the following measures:

- Adopt a best practice water sensitive urban design approach, focusing on preventative and source controls
- Provide rainwater harvesting, permeable pavements and bio-filtration swales as part of overall stormwater strategy. Residential buildings to achieve water efficiency targets as required by BASIX.
- Incorporate and adopt a range of preventative, containment and treatment measures for stormwater management from the marina workshop and hardstand area. To include a first flush tank and treatment of captured stormwater for reuse/trade waste discharge, and segregation of hardstand surface area into three areas to facilitate waste collection and treatment.
- Provide oily waste recycling tank for wastes from workshop and from oily bilge water from the pump out facility on the marina
- Fuel storage tanks to be designed according to authority requirements including double skinned tanks
- Implement a water quality monitoring program during construction and for three years of marina operation.
- Design and install sediment and erosion control structures during construction according to an erosion and sediment control plan.
- Incorporate overland flow paths as necessary

In addition:
- Consider acid sulphate soils management, in line with a management plan, in design and construction methodologies.
- Consider groundwater implications in design and construction methodologies

These matters are to be considered in further detail with Project Applications



SITE PRINCIPLES.
Principle 12 – flooding

Ensure that the proposed buildings are free of the effects of flooding.

Objective
Locate buildings above flood level, with flood level to be determined with regard to sea level rise through climate change.

Guidelines
The figure on this page outlines flood mitigation measures for the site. Flood planning levels have been devised taking into account frequency, still water level, wave action, potential climate change impact and design life of various components of the site.

The proposed minimum flood planning levels are:

- Habitable Floor Levels – 2.8m AHD
- Hardstand Area & Workshop 1.1m AHD (with electrical wiring above 2.42m AHD)
- Road Level and Barriers to Protect Marina Village Undercroft Parking Spaces to the east – 1.60m AHD
- Marina Structures – 1.60m AHD

Extent of Current 100yr ARI Flood Design Still Water Level

SITE PRINCIPLES. Principle 13 – services and waste management

To provide adequate utility infrastructure including provision for handling waste to cater for the demands of the development

Objective
Comply with the requirements of utility and waste collection authorities

Guidelines
• Utility infrastructure including water, sewer, electricity, telecommunications and gas is to be extended to the site.
• Services to be supplied throughout the development.
• Provide adequate on site storage opportunity for waste and recycling streams commensurate with the landuse types and provide adequate arrangements for regular collection (including marina).
• All chemical and fuel storages, including storage of wastes (such as oily waste) be designed and operated in accordance with Information Sheets 5 and 6 DECC's Environmental Action for Marinas, Boatsheds and Slipways (June 2007).
• A waste management plan to be prepared to address the building construction and operational phases of the development.

SITE PRINCIPLES Principle 14 – marina

To provide a Marina

Objective

Having regard to the contextual analysis undertaken the proposal aims to take advantage of the Lake for the purpose of promoting tourism to the region. This site presents that opportunity, given limited environmental constraints and impacts (no dredging required, no significant impacts on sea grass or marine species and the like) together with the unique chance to combine it with a land based marina and tourism component.

Guidelines

- The proposed 308 berth marina being constructed in stages as identified on Figure 13 and being designed to meet AS 3962-2001 "Guidelines for Design of Marinas". The Proposed Marina will provide for boats up to a maximum length of 20m. The proposed Marina will be connected to the shore based components in a manner that does not unreasonably restrict public access along the foreshore. Structures, other than the travel lift, crossing the narrow fringing seagrass, to be constructed from timber with aluminum grating.
- The proposed Marina to be protected by an outer Breakwall which is to be publicly accessible from the shore in a manner that does not unreasonably restrict access along the foreshore. The breakwater to be designed incorporating fixed timber deck on steel piles with partial depth double skirted timber slats. The partial depth structure to allow water movement. Part of the southern breakwater closest to the shore to be open to further enhance movement of water and to prevent seagrass wrack accumulation. The breakwater is to be maintained to prevent sea grass wrack accumulation.
- Marina arms to consist of floating pontoons.
- The proposed Breakwall public access to be appropriately managed at all times during helicopter landing and take off procedures to withhold access during those times for public safety.
- Provision being made available for a 117m length on the inside edge of the breakwall for public day berthing and provision made for occasional berthing of tourist boats on outside eastern edge of the breakwater.
- Vessel exclusion zone to south of southern breakwater to protect extensive seagrass areas

Figure 13 Marina and Helipad

Travel lift example – Noakes, Newcastle

SITE PRINCIPLES Principle 14 – marina

- Berths to be provided with water, power and lighting services

- Marina to include required fire fighting equipment plus public fuel, sewage pump out (dual bowser) and oily bilge pump out facilities, sited at end of Marina Arm A. Two double skinned fuel storage tanks, plus oily waste recycling tank to be provided on land, as well as small waste water pumping station;

- No dredging required with marina and boat lift designed to existing water depths, with tubular steel piles used throughout construction to reduce seabed impact.

- Boat Lift Facility with 2 steel runway beams supported on tubular steel piles, extending approximately 45m into lake, for vessels up to 75 tonnes, 25m length and 8m beam;

- Associated land based facilities including repair and maintenance facility for minor repairs and maintenance (hardstand area and workshops), marina facilities and services and service infrastructure, as well as mixed use tourist resort and apartments and combined parking (refer other components of Concept Plan).

- The Hardstand area is to be set above 5 year ARI flood level. Minor filling (to 1.2m AHD) will be required and design is to include a first flush and washdown water collection and treatment system and strict environmental controls.

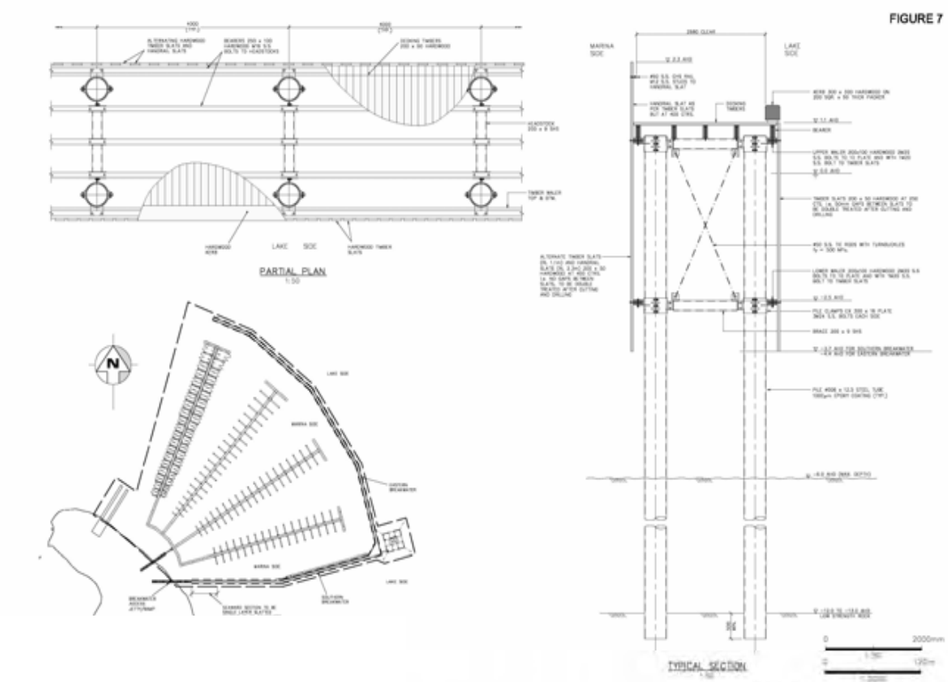
- A water quality monitoring program is to be developed for the construction phase of the water and land based marina development.

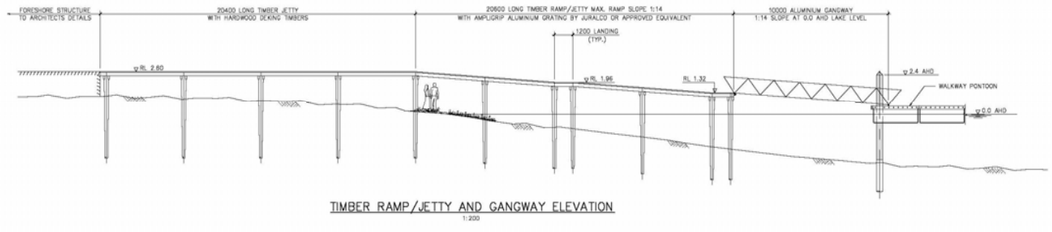
- Construction Environmental Management Plans are to be prepared (water quality, erosion and sediment, noise, acid sulphate soil management and the like)

- Operational environmental management plans are to be prepared, to also include operational management of the facility.

- Landscaping / Re-vegetation to northern and western foreshore past travel lift to screen fencing and hardstand area

FIGURE 7





SITE PRINCIPLES. Principle 15 – helipad

To provide a limited use helicopter landing site to compliment the Trinity Point Marina and Mixed Use Development

Objective

To enhance access to the site, in particular access from Sydney airport, a restricted operation helipad is to be incorporated into the project at an appropriate location and designed to limit impacts during construction and use.

Guidelines

• A helicopter landing site is to be sited on the eastern side of the marina breakwater, near Marina Arm A as shown in Figure 13. This site has been selected to enable clear flight paths situated approximately 180 degrees apart aligned to minimise noise impact off site and to take into account rotor wash impact.

• The design is to consist of a combined load-bearing GEA/LLA of 25m x 25m steel pontoon with gangway off the breakwater, and designed generally as detailed in *Trinity Point Marina HLS Location and Concept Design Report* (Heli-Consultants Pty Limited, 2008)

• Use of the site is to be limited to a maximum of 2 landings per day between the hours of 8am – 6pm (weekdays) and 10am – 4pm (weekends + public holidays), and exclude night time movements. Emergency landings excluded from these limits.

• Use of the site is to be limited to helicopter types that are suitable without exceeding noise criteria (excluding emergencies), and include:

- Agusta A109 A/C/E
- Agusta A119
- Eurocopter AS350
- Eurocopter AS355
- Eurocopter BO105
- Eurocopter EC120
- Eurocopter EC135
- Robinson R22/R44
- Schweizer 300
- Enstrom EF28/EF280
- Bell 206/206-L
- Bell 407
- Bell 427

If a party proposes to use a different helicopter type than those listed, it must submit certification noise data for that type. If those noise levels are equal or less than those published for the Bell 407, the new helicopter type should be allowed to operate at the site, or supplementary acoustic testing be conducted.

• Access control to adjacent sections of the breakwater and waterway (30m) during helicopter landing/take off are to be provided.

• A Facility Manual should be prepared for the site prior to its use to identify access control measures, helicopter landing site restrictions and procedures for helicopter movements.

SITE PRINCIPLES. Principle 16 – acoustics

Ensure that the proposed development does not have an unreasonable acoustic impact on the surrounding locality and on future occupants of the site.

Objective
The proposed development to comply with relevant standards for the emission of noise.

Guidelines
• The proposed number of helicopter movements being restricted to a maximum of 2 landings per day and to the hours of 8am – 6pm weekdays and 10am – 4pm weekends and public holidays. No nighttime movements except for emergency services.

• The proposed helicopter types being restricted to those nominated in the report prepared by ARUP Acoustics. Any additional helicopter types to be used are to be subject to further reports establishing compliance with the appropriate criteria.

•To reduce unacceptable noise impacts, no joy flights are proposed

• The proposed development is to comply with relevant noise criteria outlined in the ARUP Acoustic report for all aspects of the proposed development.

• Further detailed acoustic reports demonstrating compliance with the established noise criteria to be included with future project applications.

SITE PRINCIPLES. Principle 17 – sustainable development

To ensure that the proposed development adopts appropriate sustainability measures.

Objective

The proposed development is to minimise its impact on the environment by adopting sustainable design that includes the built form as well as energy efficiency and greenhouse gas minimisation during the design construction and operational phase of the development.

Guidelines

- Relevant components of the proposed development being designed to meet the orientation, solar access, sun protection and cross ventilation requirements of SEPP 65.
- Relevant components of the proposed development being designed to meet the requirements of Section J of the Building Code of Australia.
- Relevant components of the proposed development meeting the requirements of BASIX and the relevant certificate being included with the project application for each stage.
- The proposed development being designed and operated to minimise the emission of greenhouse gases and a Greenhouse Gas Assessment (estimating green house emissions and outlining emission reduction measures proposed) is to be included at Project Application stage for each stage of the development.
- The proposed development complying with the stormwater harvesting and re-use requirements of Lake Macquarie DCP 1.

SITE PRINCIPLES. Principle 18 – indigenous & european heritage

To incorporate appropriate indigenous and european heritage management

Objective
To minimise impacts on indigenous and european heritage values and maximise opportunities to reinforce and interpret those values

Guidelines
Indigenous Heritage
• The ongoing consultation and involvement with the development of the project shall be carried out with the Aboriginal community as represented by the Koompahtoo and Bahtahbah Local Aboriginal Land Councils and the Awabakal Descendants Traditional Owner Aboriginal Corporation and the Awabakal Traditional Owner Aboriginal Corporation as primary stakeholders. Additional stakeholders may be availed of information as requested, and their opinions documented in the Aboriginal Heritage Management Plan.

• An Aboriginal Cultural Heritage Management Plan and Interpretation Policy is to be prepared. It is to be developed in conjunction with the Aboriginal community and be based on historical data, cultural knowledge and archaeological evidence specific to Trinity Point. The interpretation policy is to provide a framework for interpretation of the Aboriginal values and heritage of the site to the general public, for incorporation into overall site interpretation and into development details. This may be presented in different ways include, interpretation/history boards, display of artefacts in secure cases near the Village Square and local Aboriginal art included within the development's public art/interpretation/landscaping strategies.

• Lake Macquarie City Council, in its future management and use of the lake shore land at Trinity Point, is to take into account the Aboriginal Heritage Values and features of that land. Any proposals in the future for that land (such as alternative public access paths) outside those included in the Concept Plan are to assess the heritage values and identify appropriate measures to preserve them.

• Salvage excavations are to occur where there is potential for intact deposits to remain and where development footprint is to occur. This to be limited to an additional 50m2 in two x 25m2 excavation areas. Whilst the deposits will not be stratified, the analysis of those excavations in combination with others in the adjoining residential subdivision can provide a landscape analysis of the site for use in the recommended Interpretation Policy. It will add valuable information to the archaeological record of the Lake Macquarie Area.

• Monitoring of earthworks (top soil stripping earthworks only) to be undertaken by the Aboriginal community. Any artefacts found during this monitoring and in the salvage excavations are to be recovered for relocation by the Aboriginal community in accordance with DECC guidelines.

• Notwithstanding LMCC future ownership and management of the lake shore land, Johnson Property Group to include precautions within the development proposal to ensure the recorded sites in the lake shore area are not impacted, destroyed or damaged by JPG construction works.

Non-Indigenous Heritage
• Monitoring of particular earthworks occurs in the southern part of the site in the general area of the Bailey residence to record any peripheral infrastructure.

• An Interpretation Policy is to be prepared, drawing from the information in past historic research and heritage/archaeological assessments and investigations. The interpretation policy is to provide a framework for interpretation of the European use of the site to the general public, for incorporation into overall site interpretation and into development details.

• Retain and manage the existing cultural plantings near Bluff Point, and incorporate interpretation of those into the Interpretation Policy.

• Lake Macquarie City Council, in its future management and use of the lake shore land at Trinity Point, is to include measures for in-situ conservation and management of the grotto and the stone base sundial near Bluff Point, and consider interpretation of these features in their management strategies.

SITE PRINCIPLES. Principle 19– staging, subdivision & management

To ensure that any staging of the proposal protects key site outcomes.

Objective
To ensure that staging, subdivision, operation and management of the development is orderly.

Guidelines
• The main components of the marina is to be developed in four stages, generally as described in Principle 13, being:

Marina Stage One – 70 private berths on Marina Floating Arm A, jetty connecting to foreshore, fuel and pump out facilities and services, necessary component of breakwater (southern + part eastern) which includes public day berthing area, helipad, travel lift, hardstand area and repair/maintenance facility, service facilities (tanks, pumping stations and the like), office, marina lounge and managers residence, plus necessary access and carparking to cater for stage one uses;

Marina Stage Two – 76 private berths on Marina Floating Arm B, services, additional component of eastern breakwater, and necessary access and carparking to cater for stage two use; This will proceed to construction once 80% take up of stage 1 has occurred.

Marina Stage Three – 80 private berths on Marina Floating Arm C, services, additional component of eastern breakwater, and necessary access and carparking to cater for stage three use. This will proceed to construction once 80% take up of Stage 2 has occurred

Marina Stage Four – 82 private berths on Marina Floating Arm D, services, additional component of eastern breakwater, and necessary access and carparking to cater for stage four use. This will proceed to construction once 80% take up of Stage 3 has occurred

.

• The above staging of the marina is not sequentially linked to staging of the remaining components of the proposal. The remaining land based components are not subject to a definite staging concept.

The following principles are to guide staging when it is proposed:

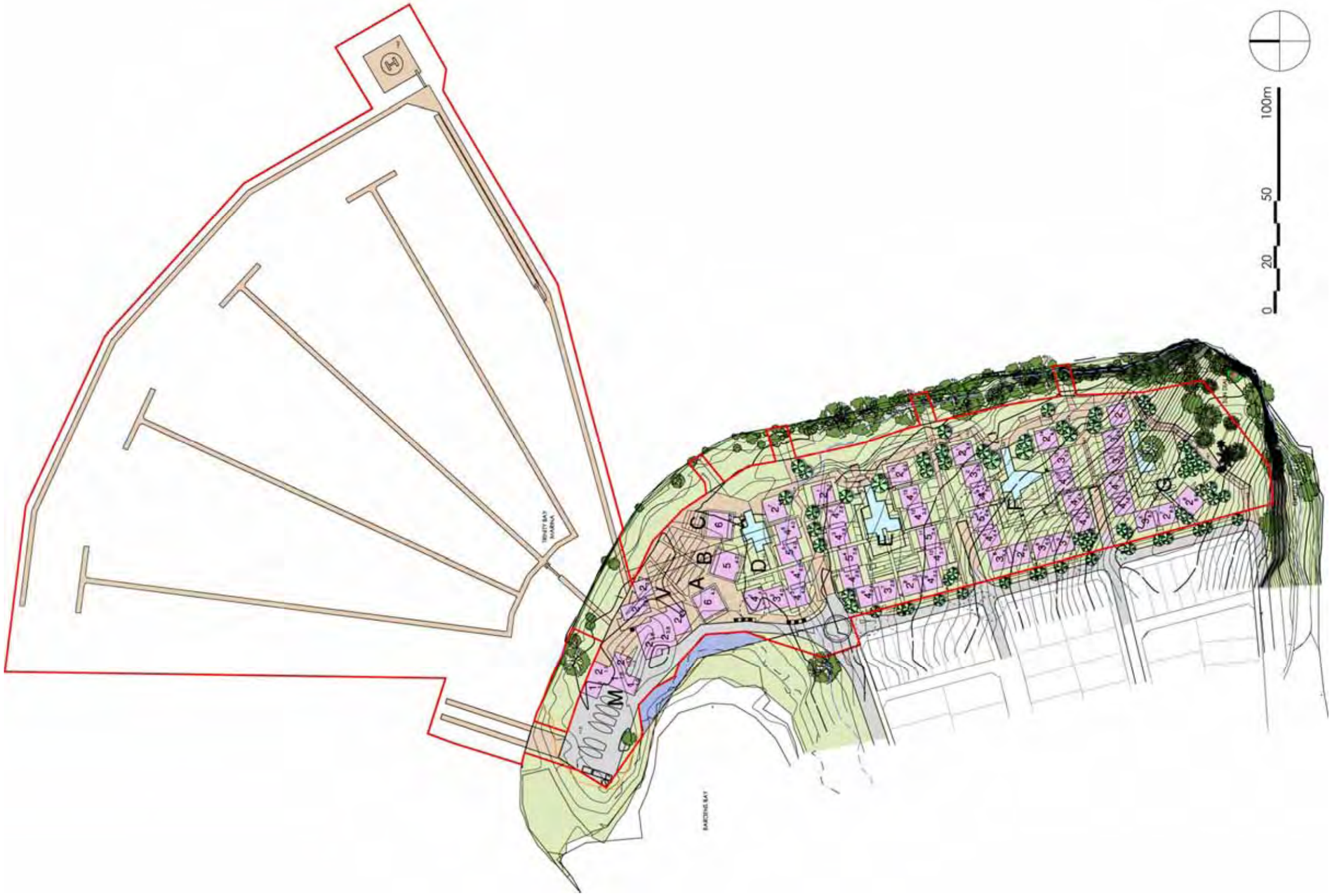
_ It is important to create the village square in an early stage and some of the activating land uses;

_ Staging of development for residential purposes is to be consistent with land use provisions provided within the concurrent LEP amendment for this site – eg. in a staging sense, the number of residential dwellings is not to exceed the number of tourist accommodation units at any stage.

_ Whilst the public boardwalk, spaces and their improvements will be staged, it is important that each stage provides a temporary pedestrian circulation system back to the public road network until it is replaced by subsequent final works in subsequent stages.

• Project Applications/Development Applications are to provide details on intended subdivision, titling, operation and management of the development, and link that into management of potential conflicts between on site uses and necessary management of other operational issues such as marina operation, noise management, public domain management and maintenance and the like

INDICATIVE OUTCOME – summary figure



INDICATIVE OUTCOME – summary figure

FIGURE 5