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1 INTRODUCTION

The purpose of the Area Plan for 1A Raymond Street is to provide a strategic and coordinated approach to the development of land located at the former Speers Point quarry. The Area Plan will ensure the land is developed in an efficient manner, taking into account environmental, social and economic issues affecting the site.

This Area Plan is to be read in conjunction with the relevant part of Lake Macquarie Development Control Plan (LM DCP) 2014. Where the provisions of this Area Plan are inconsistent with the controls in the relevant part of LM DCP 2014, the provisions of this Area Plan will prevail.

1.1 BACKGROUND

This Area Plan relates to the former Speers Point Quarry site, which has been rezoned for the purpose of future residential development within an C4 Environmental Living Zone, and satisfies the additional local provisions that apply to the site pursuant to Part 7 Clause 7.17 of the Lake Macquarie Local Environmental Plan 2014 (LM LEP 2014).

1.2 EXTENT OF AREA PLAN

This Area Plan applies to the land outlined in green in Figure 1.



Figure 1 - Extent of the Area Plan

1.3 HISTORY OF THE SITE

The history and character of the site was presented in the Local Environmental Study prepared by RPS (2011) and is summarised below.

The study area is located within the boundaries of the Awabakal people, the Aboriginal people of the Lake Macquarie area. The range of high hills we now know as Munibung Hill was important in the spiritual and ceremonial life of the Awabakal people (Threlkeld in Gunson 1974:64).

Formal European occupation of the area commenced in 1828 with the selection by William Brooks of 1,280 acres encompassing present day Speers Point and the area now known as Munibung Hill. In 1843, Brooks announced the opening of a coal mine, which is thought to have been located around the top end of present-day Hopkins Street. The coal mine operated until around 1856 (Hartley 1998:55).

Around 1870 William Speer, a Sydney businessman and timber merchant, acquired the property. In 1902, the first subdivisions were made around Munibung Hill extending from Main Road Boolaroo, to present day Thompson Road and east to Fairfax Road. The remaining land was acquired by Mrs Mersie Hardy who subdivided some portions although the hilly area remained undeveloped. A quarry operation commenced from about that period, with access from Hopkins Street. It is thought that a Mr Hopkins was the quarry manager (Read, 2003).

The hilly area was sold to A G Hawkins (Speers Point article nd:1) who established gravel quarries to support road building activities (Boolaroo – Lake Macquarie Council Local History Website). From 1986 onward, Boral Resources Pty Ltd operated a gravel quarry under an operating licence from Dekagra Pty Ltd (Resource Planning: 1989:29). The quarry licence was formally surrendered in 2014.

1.4 EXISTING CHARACTER

The site is located in the northern part of the Lake Macquarie local government area (LGA), some 17 kilometres from the central business district of Newcastle and 8.5 kilometres from Charlestown, and is currently vacant. Topographically, Munibung Hill comprises of three spurs running in a north-south and east-west direction. A significant ridgeline exists on the southwestern slopes of Munibung Hill where the subject site is located, and being approximately 800 metres northeast of the lake.

The East Munibung Hill Precinct Area Plan covers the residential areas of Fairfax Road. To the south and through to the west are the residential and commercial areas of Speers Point and Boolaroo.

The landform resulting from previous quarry activities is characterised by two adjacent pits (Figure 2). Pit A is the larger of the two pits, located on the eastern side of Pit B and is approximately 5.75 hectares in area, with wall heights varying from approximately 0 to 25m. Pit B is approximately 2.14 hectares in area with wall heights varying from approximately 0 and 15m. The base of Pit A is relatively flat whilst the base of Pit B slopes down from the north to the south at an average slope of 3 degrees.

The site has historically been accessed from Hopkins Street via a local neighbourhood road network to the west. This road network also includes numerous streets, which terminate at the western boundary. A network of bushwalking tracks is located along ridge crests on the site. A Council car park off Quarry Road provides an entry point to the site whilst pedestrian access is also available via the streets on the western edge of the site.

1.5 ENVIRONMENTAL ATTRIBUTES AND CONSTRAINTS

Former Quarry

Development opportunities are generally restricted to that area of the site that previously accommodated the quarry operation and to an area that has been largely disturbed and does not hold any tangible environmental qualities.

It is noted that Pit B, which is to the west of Pit A, has been excavated to create a non-draining void and now contains a small artificial wetland. Options will be developed to offset the wetland removal.

Biodiversity

Four vegetation communities are present across the site:

- Coastal Foothills Spotted Gum – Ironbark Forest (the dominant forest type on site)
- Coastal Narrabeen Moist Forest
- Coastal Wet Gully Forest (an Endangered Ecological Community (EEC) covering approximately 3.97 hectares)
- Disturbed Lands.

As shown in Figure 2, potential opportunities for conservation across the site include retention of Coastal Wet Gully Forest (EEC) and Coastal Narrabeen Moist Forest areas along drainage lines, and areas of Coastal Foothills Spotted Gum Ironbark Forest along the steeper slopes. The conservation of such areas will provide habitat areas for local species (including the threatened Squirrel Glider), stop-over habitat for highly mobile species, and habitat areas for less mobile species within the landscape.

The high ecological value land is within the C2 Environmental Conservation zone and encompasses land mapped as native vegetation on Council's Native Vegetation and Corridors Map. The high ecological land is generally located to the north east, east and south east of Pit A. The retention, conservation and rehabilitation of the environmental corridors are an important priority. Minimal development (e.g. walking paths and potential future low impact eco-tourism) will occur in areas zoned C2 to ensure ongoing ecological function of the conservation areas. Roads and other infrastructure will be required in parts of the C2 zoned land to service the proposed development. They need to be designed to minimise visual and environmental impacts on land zoned C2.

Other Attributes

The elevated nature of the site means that careful consideration needs to be given to the visual impact of future development. Scenic management therefore needs to be in accordance with the Council's Scenic Management Guidelines. Of particular importance, the guidelines recommend rehabilitation of degraded areas while ensuring that future development sits appropriately into the site's existing landscape context, and utilising mitigation measures to minimise visual and other amenity impacts.

The site is partially mapped as bushfire prone land, and is subject to areas of slope instability and potential contamination.

Given the site's visual prominence within the landscape of Munibung Hill, the early planting of a vegetation buffer/earth mounding with vegetation to assist in screening the southern and western portions of the site during earthworks and construction stages would be appropriate.

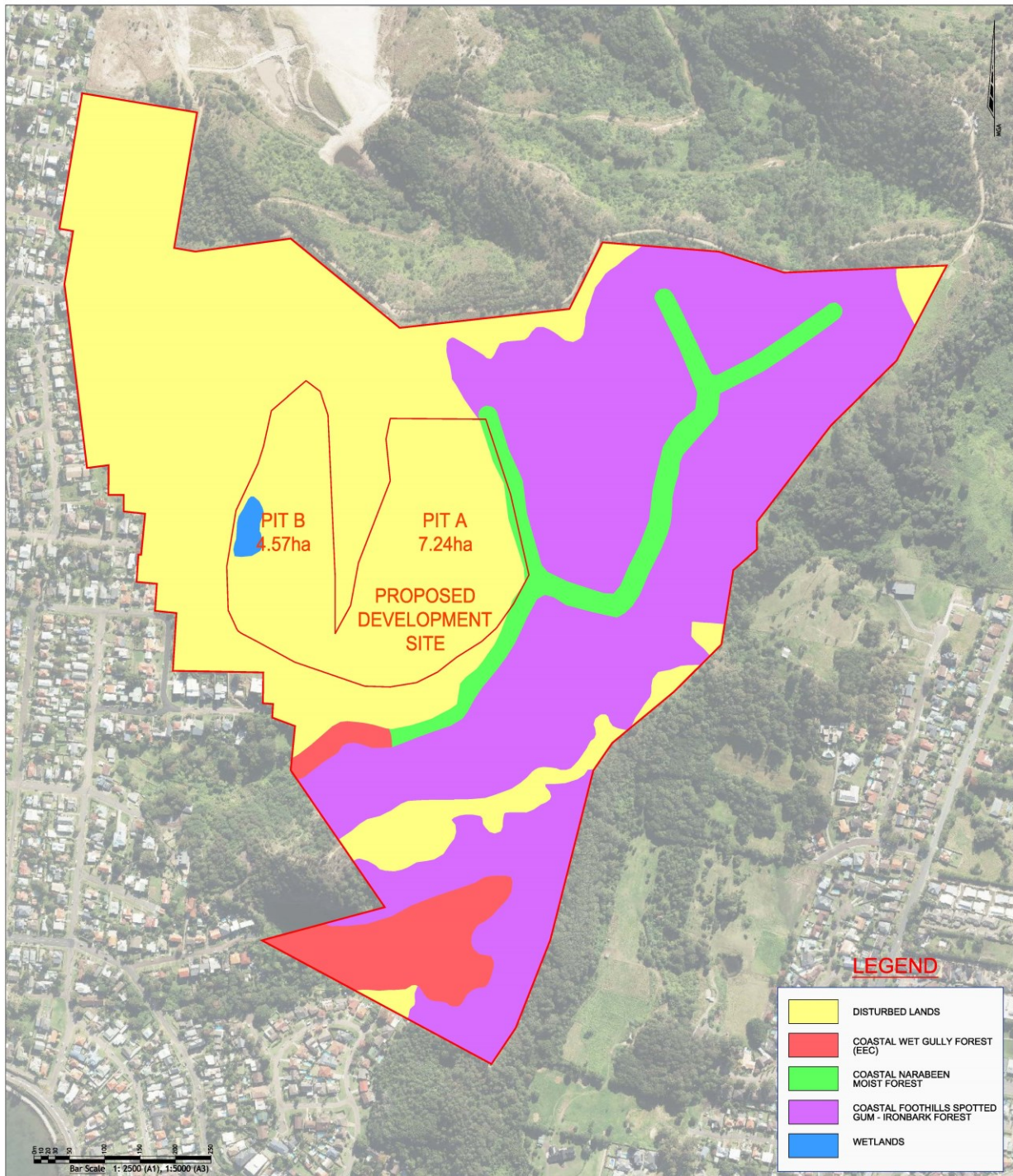


Figure 2 - Vegetation Communities (RPS 2011)

1.6 DESIRED FUTURE CHARACTER

Future development will be characterised by low-density residential development (450m² lot size) within an C4 Environmental Living Zone, surrounded by areas of existing native vegetation and introduced buffer vegetation for visual integration within the broader landscape of Munibung Hill. A colour palette of muted natural tones will be provided for all new dwellings inclusive of proposed roof and wall colours. Combined with the use of non-reflective building materials, future development will not be a visually dominant feature within the hillscape of Munibung Hill. Residents will enjoy the high level of amenity afforded by the elevated nature of the site and its natural setting.

It is envisaged that the site will be remediated and redeveloped to provide a residential area which:

- respects the cultural value of Munibung Hill to the Awabakal people, and reflects these values in the planning and design of open space lands contained in the area plan
- integrates future development in a way that ensures the visual predominance of the natural environment, and that development visually links to the settlement patterns of Boolaroo and Speers Point suburbs
- enhances the natural environment, and ensures continuous viable links for watercourses and drainage lines including provision of an alternate location/solution for the wetland currently located in Pit B, and biodiversity values including native flora species
- retains the scenic amenity and visual prominence of Munibung Hill, and that urban development responds to and enhances the significance of this landform to the Lake Macquarie viewshed.
- provides shared pathway infrastructure that physically links the site to surrounding town centres (Glendale, Boolaroo, Warners Bay), schools and existing/planned pathway networks to meet active transport principles, which encourages walking and cycling
- has a relationship with the Pasmenco Area Plan bounding the site to the north, and the East Munibung Hill Area Plan in terms of pathway and street connections

A Site Structure Plan outlining the desired future character is presented in Figure 3.

Future development of the site including lot layout, built form and landscaping will occur according to relevant provisions of Part 3 - Development within Residential Zones, and Part 7 - Development in Environment Protection Zones of the Lake Macquarie Development Control Plan 2014. Where controls are not provided for in the relevant parts of the C4 Environmental Living zone and the Residential zones of the DCP described, then the Aims and Controls of this Area Plan prevail.

2 DEVELOPMENT CONTROLS

2.1 SITE ACCESS AND CONNECTIVITY WITH ADJOINING AREAS

Objectives

- a. to create a transport network that provides access, mobility and connectivity within the site and to adjoining areas with regards to vehicles, pedestrians and bicycles.
- b. to promote development that integrates with the existing subdivision pattern of Boolaroo, Fairfax Road, and Macquarie Hills.
- c. to encourage safe and effective pedestrian and cycle networks

Controls

1. Footpath links, roads and cycleways should be provided in accordance with Figures 3 & 6.
2. Primary road linkages must be designed to include footpaths, and collector roads must cater for buses and have footpaths.
3. The local road network in residential areas should be designed to achieve:
 - i. a subdivision pattern consistent with the existing grid subdivision pattern of residential lots in Boolaroo and Speers Point, and provision of good solar access;
 - ii. connections with existing local roads to Council's satisfaction;
 - iii. a low speed environment (50 km/h speed zoning); and
 - iv. a walkable and permeable street network avoiding long street blocks.
4. Pedestrian links and cycleways must connect with the Lake Macquarie bicycle network.
5. There are two options for access to the future residential subdivision on the site, from Council Street or Hopkins Street, Speers Point. A Traffic Impact Assessment, geotechnical and other engineering investigations are to be undertaken by the proponent, to recommend the most appropriate option for access to the site.
6. The Traffic Impact Assessment must also consider the impacts of additional vehicle movements on the local street network and identify any intersection and road upgrades or improvements required to accommodate the additional traffic movements.

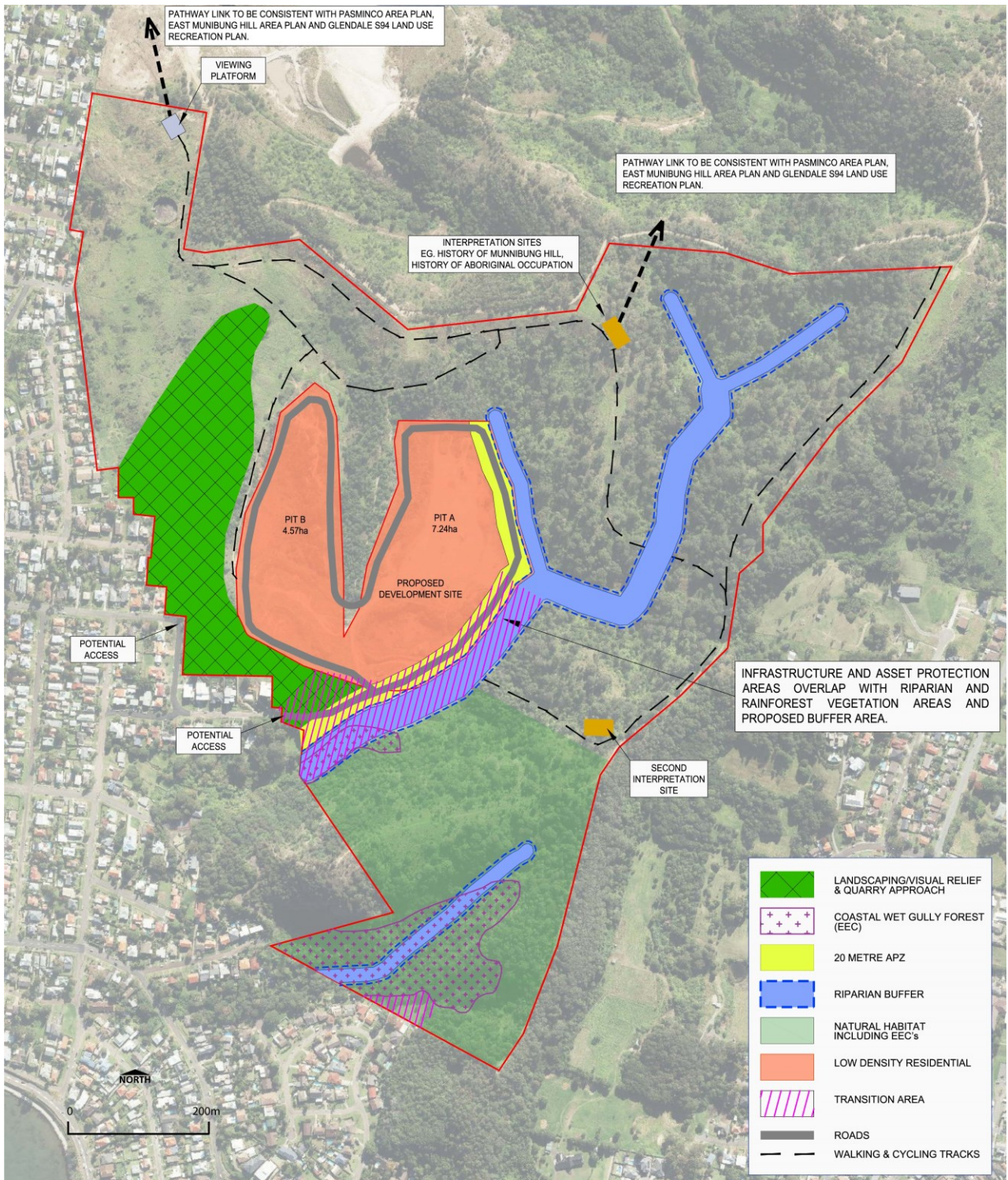


Figure 3 - Site Structure Plan

2.2 VEGETATION MANAGEMENT

Objectives

- a. To protect and enhance biodiversity values within identified native vegetation areas on land zoned C2 Environmental Conservation.
- b. To ensure the riparian areas, wildlife corridors and fauna habitat associated with Munibung Hill are rehabilitated and appropriately managed.
- c. To ensure that the loss of biodiversity arising from development of the land is offset to mitigate the impact of that development.
- d. To provide for the long-term rehabilitation and management of land zoned for conservation.
- e. To ensure biodiversity values, bushfire risk and land contamination issues associated with the conservation lands are appropriately managed.

Controls

1. Areas of high biodiversity value are to be rehabilitated and managed in perpetuity for conservation.
2. A Vegetation Management Plan must be prepared for the area depicted in Figure 4, in accordance with Council's Vegetation Management Plan Guidelines prior to submission of a development application for subdivision or other residential development. Management plans for the conservation lands must address the following matters:
 - i. the proposed land tenure and managing body for the land;
 - ii. the rehabilitation and ongoing management of native vegetation areas including the revegetation of the spur between Pits A and B;
 - iii. bushfire control, fire trails, weed and feral animal management measures;
 - iv. measures to offset the loss of habitat including provision/solution of an offset for the artificial wetland characteristics within Pit B.
3. Secure tenure of the C2 Environmental Conservation Land is necessary to ensure the long-term protection, rehabilitation and management of the C2 land. This may be achieved by:
 - i. Dedication of C2 land to Council or an acceptable management agency subject to risk and liability being acceptable, control of all noxious weeds and assessment following implementation of the Vegetation Management Plan for a period of 10 years;
 - ii. Entering into a legally binding agreement (e.g. Planning Agreement) to establish a mechanism to provide ongoing security and management of C2 land.

Note: The Vegetation Management Plan (VMP) must be in accordance with the Council's Vegetation Management Guidelines and provide for, but not be limited to:

1. Re-establishment of native vegetation along riparian corridors, in endangered ecological communities and in fauna habitat and movement corridors (including removal of rubbish, weeds and planting with suitable native species);
2. Future management arrangements for the C2 land including funding, monitoring and timeframes;
3. The standard of rehabilitation to be achieved should result in a weed free, self-maintaining ecosystem to ensure minimal maintenance is required over the long term; and
4. If any land is to be managed by or dedicated to any other organisation or trust other than Lake Macquarie City Council, suitable documentation is to be provided to Council to provide certainty that:
 - i. The criteria and arrangements in this section are satisfied, and
 - ii. Adequate financial resources have been secured in perpetuity for the subject land.

Council will not accept ownership or management responsibility for any land that is contaminated, including roads or stormwater infrastructure. Council will not consider accepting ownership or management responsibility of conservation land unless management plans have been prepared and implemented to the satisfaction of Council.
5. The location of fire trails should utilise the alignment of walking trails where possible, and connect to the local road network;
6. The management and stabilisation of any contaminated soil to prevent public contact and contaminated soil leaving the development site including in the event of fire or in stormwater runoff;

7. Stormwater treatment to ensure contaminated material does not leave the development site and contaminate off-site stormwater infrastructure and residential areas;
8. The identification of areas suitable for public access and recreation;
9. Proposed buffers, edge treatments and management measures to reduce ongoing impacts and management costs at the interfaces between the conservation area, and urban areas;

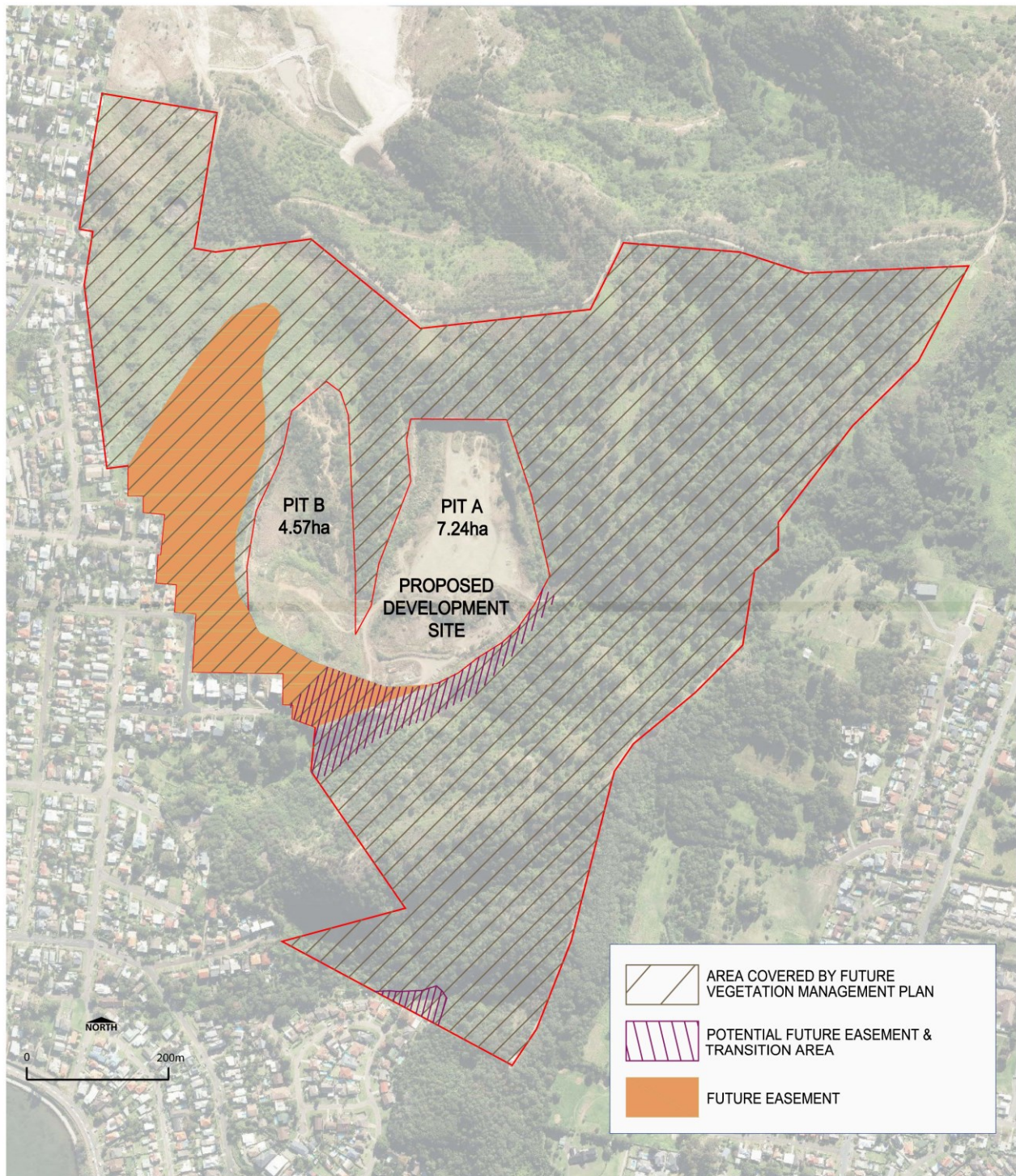


Figure 4 - Extent of Vegetation Management Plan

2.3 CULTURAL HERITAGE

Objectives

- a. To acknowledge the value of Munibung Hill to the Awabakal people.
- b. To conserve and interpret Aboriginal and European heritage as part of future development.
- c. To provide guidelines for the protection of Aboriginal and European cultural heritage and culturally significant areas.
- d. To integrate interpretative material with the emerging urban form

Controls

1. Prior to lodgement of a development application for residential subdivision and in accordance with relevant Office of Environment and Heritage (OEH) guidelines, provide documentation to Council's satisfaction that consultation has occurred with Aboriginal traditional owners and Biraban LALC, and any other relevant Aboriginal groups in relation to:
 - i. known Aboriginal sites and the significance of ridges and valleys in the C2 Environmental Conservation zone, as to whether the ridges and valleys should be proclaimed as an Aboriginal Place under the National Parks and Wildlife Act 1974,
 - ii. designation of the valleys as archaeologically sensitive in terms of Aboriginal cultural heritage.

The specific guidelines are:

- OEH Guidelines for assessment and gazettal of Aboriginal Places (2008); and
 - OEH Aboriginal Cultural Heritage consultation requirements for proponents (2010)
2. Ensure the protection of known Aboriginal objects by directing walking and cycling paths away from those areas, as required by Development on sensitive Aboriginal landscape areas of LEP 2014 (refer to Figure 5).
3. Any interpretive signage / artwork in areas that are designated for pathways, to raise awareness within the community and educate people about the Cultural Heritage of the Awabakal people, must be in accordance with the wishes of Aboriginal traditional owners, Biraban LALC and as negotiated with the landowners.
4. During construction, if suspected Aboriginal cultural heritage material is encountered, work must cease in that vicinity immediately and the NSW Office of Environment and Heritage and traditional owners immediately notified. Works must only recommence when relevant stakeholders have agreed to an appropriate and approved management strategy.
5. Vegetation in the area of the historic head stones must be removed using hand tools to minimise potential for accidental impact to European heritage (see Figure 4).
6. If, during the course of clearing work, significant European cultural heritage material is uncovered, work must cease and the NSW Heritage Branch must be notified. Works must only recommence when an appropriate and approved management strategy is instigated.
7. Consultation is to occur with Council's heritage officer to determine the historical significance of a potential World War II site, and if the site is found to be of historical significance it should be protected.

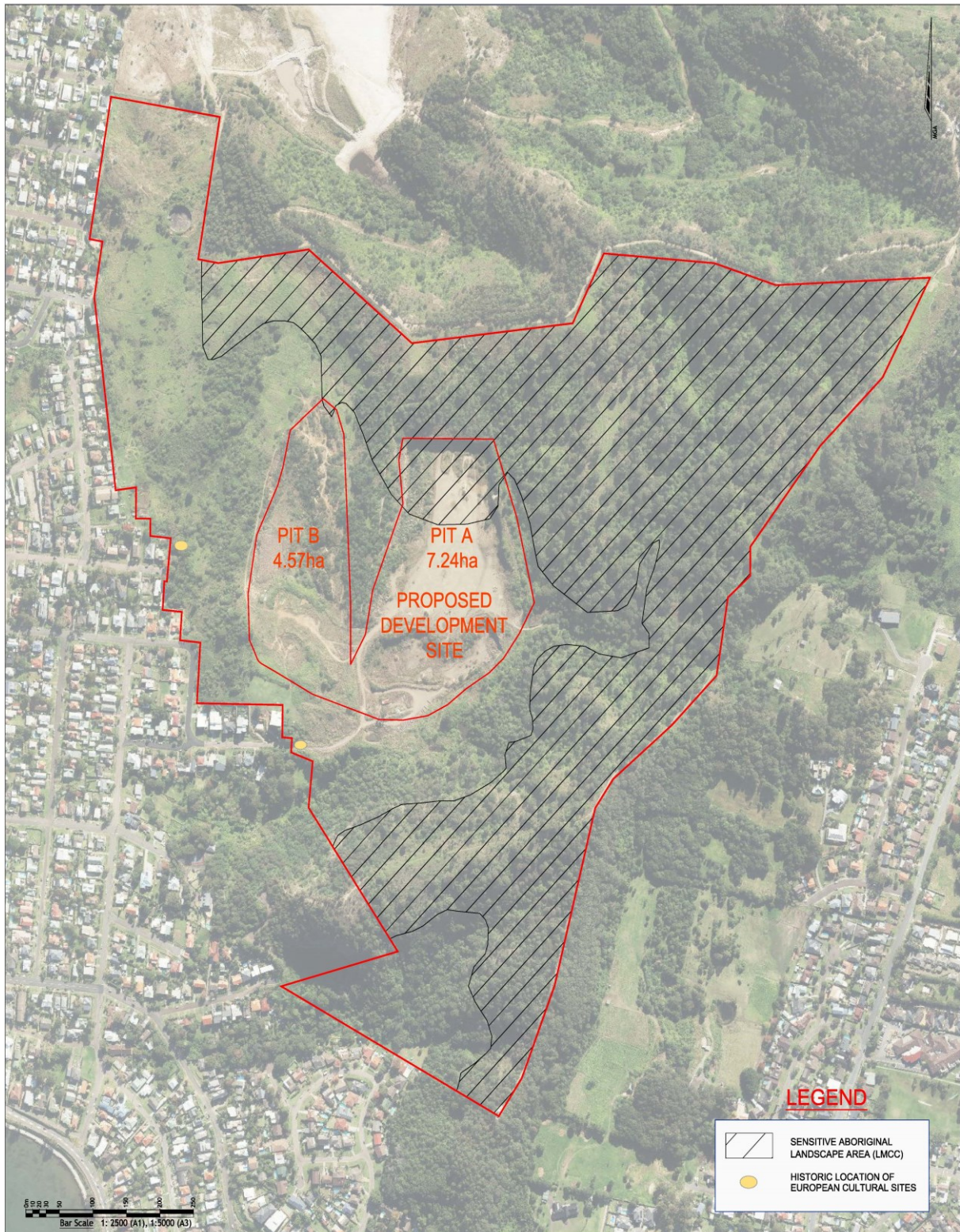


Figure 5 - Cultural Heritage Plan

2.4 GEOTECHNICAL

Objectives

- a. To identify and mitigate risk of land instability and provide a stable platform for future development.
- b. To provide for Environmental protection works associated with rehabilitation of land towards its natural state or to protect land from environmental degradation.

Controls

1. Further geotechnical studies are required to investigate areas identified as being subject to instability and proposed suitable measures to stabilise affected areas.
2. Environmental protection works associated with rehabilitation of land towards its natural state or to protect land from environmental degradation may occur with development consent.
3. Earthworks including stabilisation and reshaping require development consent and are to be supported by geotechnical studies, detailed cross sections and a landscape master plan prepared by a suitably qualified and experienced landscape architect.
4. Final landform must ensure future development can comply with the Maximum Building Height Ridge Line RLs referred to in Section 2.12 of this Area Plan.

2.5 REMEDIATION

Objectives

- a. To remediate contaminated land prior to subdivision within the C4 Environmental Living zone in accordance with the requirements of Resilience and Hazards SEPP and associated guidelines,
- b. To maximise the use of safe useable land and ensure that future works including rehabilitation, infrastructure and proposed walking paths in the C2 Environmental Conservation zone are in accordance with the requirements of Resilience and Hazards SEPP and associated guidelines, and NEPM 2013 guidelines for human health exposure in recreation areas.
- c. To ensure that paths are useable for walking and cycling

Controls

1. A Stage 2 Detailed Site Investigation must be provided for areas set aside for future subdivision in the C4 Environmental Living zone including a Stage 3 Remedial Action Plan (RAP). The RAP must be prepared and lodged in accordance with the guidelines approved by the Office of Environment & Heritage and the *Contaminated Land Management Act, 1997*. The RAP must be submitted prior to the issue of a Subdivision Construction Certificate. It is anticipated that site remedial works will be carried out in conjunction with the subdivision earth works.
2. Following remediation, the site of future subdivision in the C4 Environmental Living zone must be validated by an accredited site auditor in accordance with the NSW *Contaminated Land Management Act, 1997* prior to the issue of a Building Construction Certificate (CC).
3. Existing paths used for proposed walking / cycle tracks in the C2 Environmental Conservation zone must:
 - i. be covered with suitable material, such as uncontaminated crushed rock to minimise incidental contact with exposed soil where required to comply with the Environmental Management Plan (EMP);
 - ii. The EMP is to be prepared by a qualified and experienced contaminated site consultant and approved by the Contaminated Site Auditor; and
 - iii. the completion and certification of the pathway construction shall occur prior to the issue of a Building Construction Certificate (CC)
4. Proposed excavation of soil for services and infrastructure in the C2 Environmental Conservation zone must occur in accordance with an Environmental Management Plan (EMP), prepared by a qualified and experienced contaminated Site Consultant. In this regard, consideration must include the National Environment Protection (Assessment of Site Contamination) Measure 2013 guidelines.

2.6 BUSHFIRE HAZARD MANAGEMENT

Objectives

- a. To minimise any risks to life and property from bushfire hazards and minimise impacts on existing native vegetation.

Controls

1. The location of fire trails must utilise the alignment of existing trails where possible, and connect to the local road network to enable emergency vehicle access
2. Asset Protection Zones must be fully provided within the C4 Environmental Living and Transition Area parts of the site and require minimal maintenance (i.e. incorporate perimeter road).
3. Asset Protection Zones (APZs) must be established on the property title(s) in accordance with RFS requirements at the subdivision registration stage. Management will occur in accordance with the requirements of Planning for Bushfire Protection 2006.
4. The subdivision plan must provide a perimeter road between the bushfire prone land and the development lots.
5. Bushfire control, fire trails, weed and feral animal management measures to be provided to Council's satisfaction.

2.7 CREATION OF THE VISUAL RELIEF/BUFFER AREA

Objectives

- a. To provide for the establishment and ongoing management of the proposed visual relief/buffer area within the C2 Environmental Conservation zone.

Controls

1. At the subdivision development application stage, create the visual relief/buffer area, and provide a maintenance schedule of works associated with its creation and longer term maintenance in accordance with the Structure Plans at (Figures 3 and 6).

2.8 TRANSITION AREA

Objectives

- a. To provide for management of multiple uses on the site for the purposes of conservation, asset protection, infrastructure and visual buffer integration

Note: The transition area occurs where infrastructure and asset protection zones overlap with riparian and rainforest vegetation zones, and proposed visual buffer area as shown on Figures 3 and 6.

Controls

1. Development must ensure that it visually integrates into the site by creation of an effective buffer vegetation (refer to Figures 3 and 6, Site and Residential Structure plans)
2. Fire asset protection zones or infrastructure for the development of the site must not compromise existing (or the potential to rehabilitate) rainforest and/or riparian vegetation bordering creeks,
3. Fire asset protection zones or infrastructure for the development of the site must not interfere with the creation and maintenance of buffer vegetation or other methods necessary to achieve effective visual screening
4. Details of how all of the above competing uses will be incorporated and managed in this area will need to be addressed to Councils satisfaction.

Note: Infrastructure includes stormwater quality control structures access roads or services for development

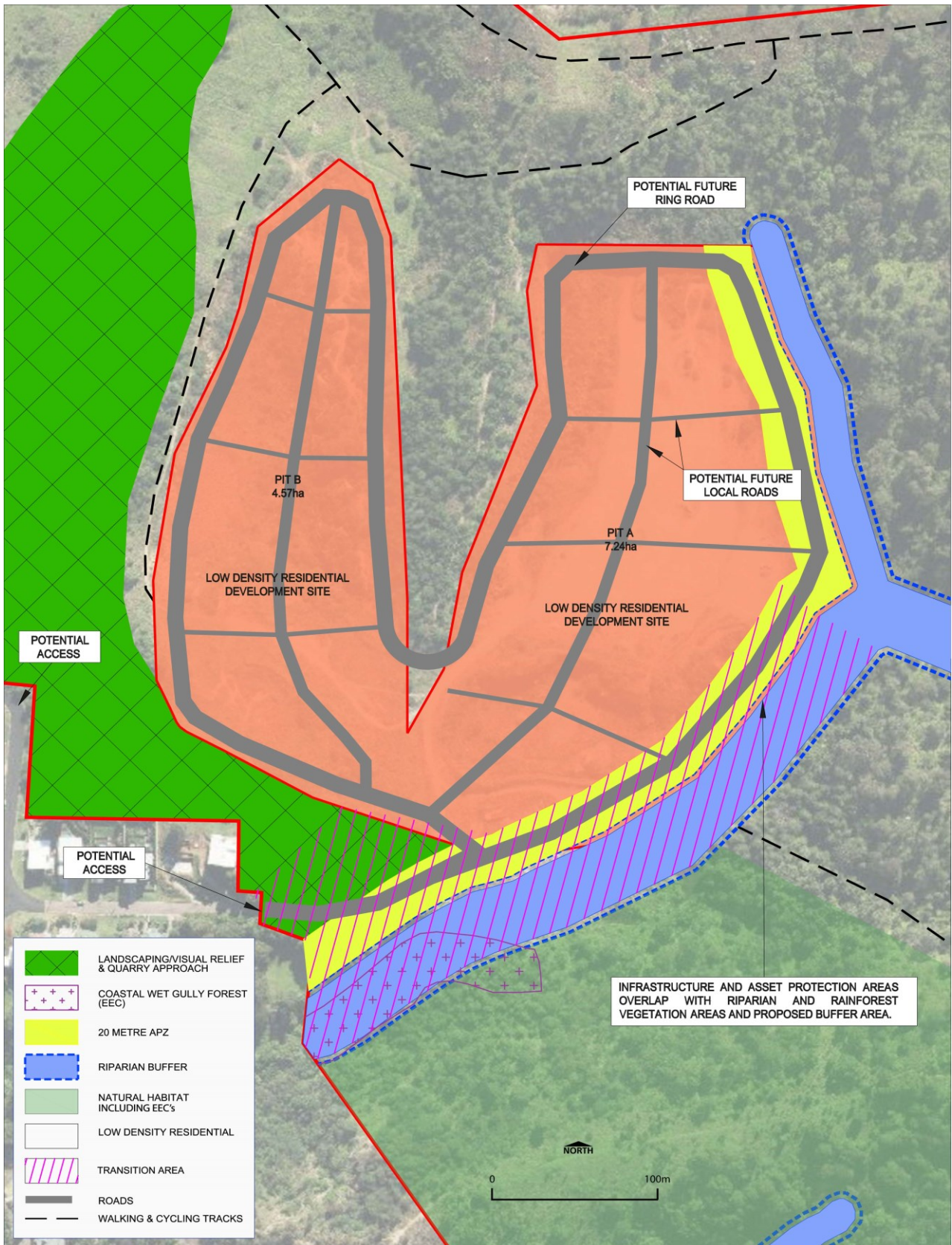


Figure 6 - Residential Structure Plan

2.9 SUBDIVISION LAYOUT

Objectives

- a. To ensure that subdivision design and layout responds to the site's topography, and visually integrates with the prominence of Munibung Hill and the surrounding visual catchment.
- b. To provide a suitable road layout that incorporates pedestrian and bicycle access which connects with adjoining lands.

Controls

1. Subdivision controls within Part 8 of DCP 2014 apply to the C4 Environmental Living Zone.
Note: The following Controls within DCP 2014 do not apply:
 - i. Control 3.17 - Lot Sizes and Dimensions
 - ii. Control 3.19 - Requirements Under Clause 4.1A of LM LEP 2014.
2. Application for subdivision must be accompanied by a staging plan - if the subdivision is to be staged.
3. A Section 88B and Section 88E Instrument under the *Conveyancing Act 1919* must be created at the subdivision registration stage for the proposed visual relief/buffer landscaping and bushfire management with Council a party to the easement.

2.10 PROVISION OF PUBLIC AREAS

Objectives

- a. To provide for safe, attractive and accessible public open spaces with good casual surveillance
- b. To link the public space to other open space areas via walking trails and cycle and pedestrian linkages

Controls

1. Development must refer to the Glendale Contributions Catchment plan for any facilities identified in the plan that relate to the subject site.

2.11 LANDSCAPE MASTER PLAN

Objectives

- a. To enhance the existing landscape and protect the scenic qualities of Munibung Hill
- b. To ensure residential development within the C4 Environmental Living Zone is separated from land with bushfire risk, land contamination and biodiversity values.

Controls

1. A landscape masterplan in accordance with Council's requirements must accompany a development application for residential subdivision and include:
 - i. road canopy street trees and management
 - ii. weed and feral animal management measures
 - iii. provide bushfire control,
 - iv. fire trails.

Note: The location of fire trails should utilise the alignment of existing trails where possible, and connect to the local road network to enable emergency vehicle access.

2.12 DESIGN CONTROLS FOR SCENIC MANAGEMENT

Objectives

- a. Development must be sited and designed to respond to the topography and landscape of Munibung Hill.
- b. To ensure future development is not visually dominant within the broader landscape of Munibung Hill.
- c. To minimise cut and fill platforms on the sloping margins of the site that create visually prominent scarring to the landscape of Munibung Hill.

Controls

1. The Design Controls within Part 3 of DCP 2014 – Development within Residential Zones apply as follows:
 - i. Control 3.2 - Street Setback
 - ii. Control 3.3 - Side Setback
 - iii. Control 3.4 - Rear Setback
 - iv. Control 4.5 - Front Fences; and
 - v. Control 4.6 - Side and Rear Fences

Note: For all other development design requirements, refer to Part 7 Development in Environmental Protection Zones.

2. Maximum Building Height Roof Ridge Lines must not exceed Australian Height Datum (AHD) RL 81 (Pit A) or RL 72.5 (Pit B and eastern valley) shown in Figures 7-11.
3. Development design to consider construction techniques that minimise cut/fill, particularly in those areas where scarring of the area could remain visible.
4. Building design including roof forms, must be simple and designed to respond to the slope of the surrounding topography and landscape, and provide appropriate solar orientation.
5. Building elements must be restricted to:
 - i. muted tone colorbond roof/roof tiles and/or wall colours, and finishes that blend with and complement the natural landscape and add to the architectural design of the building, e.g. grey colours assist in receding building forms into the landscape;
 - ii. non-reflective materials and not include highly polished reflective finishes;
 - iii. tinted glass or glass with an anti-reflective coating or equivalent to Council's requirements. Note: clear glass windows, doors and balustrades are not acceptable;
 - iv. avoid single bulky building forms – i.e. walls in excess of 15 metres in length or 4 metres in height, must be articulated; and
 - v. external lighting for buildings is to face downwards to avoid light spill in accordance with the Australian Standards Control of Obtrusive Effects of Outdoor Lighting.
6. Pier and beam construction should be used on sloping sites greater than 10% crossfall (refer to Control 3.14 in Part 7 of the DCP for cut and fill requirements).

2.13 WATER QUALITY MANAGEMENT

Objectives

- a. To ensure ecologically valuable land and associated watercourses are protected.
- b. To ensure the stormwater drainage system is designed to maintain the natural watercourse and to minimise future environmental impacts.

Controls

1. Stormwater from developed areas shall be treated prior to discharging into a natural watercourse to ensure that no net decrease in water quality, or net increase in water quantity is discharged into receiving waters.
2. Stormwater and water quality facilities should be primarily located within the C4 Environmental Living zoned part of the site or "Transition Area". Any stormwater and water quality structures

must be designed to integrate with landscaping and revegetation works and ensure adequate flow paths are maintained.

3. Stormwater drainage system is designed to maintain the natural watercourse and to minimise future environmental impacts

2.14 MOSQUITO MANAGEMENT

Objectives

- a. To manage risk of mosquito borne diseases.

Controls

1. An application for residential subdivision must be accompanied by a mosquito management plan.

2.15 POTENTIAL ECOTOURISM RESORT

Objectives

- a. To provide opportunity for potential future low impact ecotourism resort.
- b. To ensure any Eco-tourism facility is located within a buffer of smaller scale buildings and landscape vegetation in order to visually blend into the Munibung Hill landscape

Controls

1. Any future development application for an ecotourism resort must comply with the provisions of LMDCP 2014 – Part 7 Development in Environmental Protection Zones, and Council’s Scenic Management Guidelines.



Figure 7 - Cross Section Site Plan

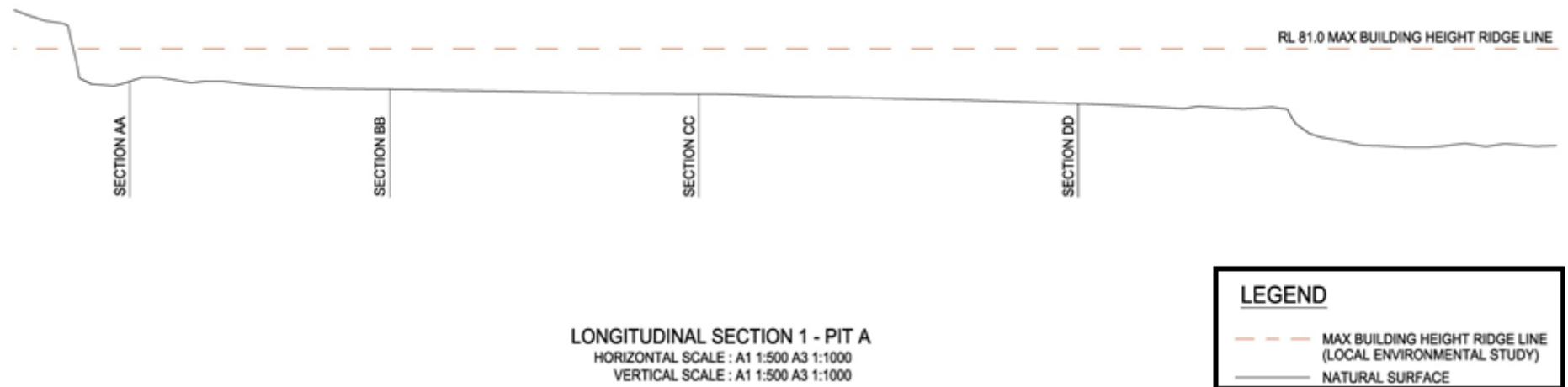


Figure 8 - Pit A Longitudinal (North South) Cross Section

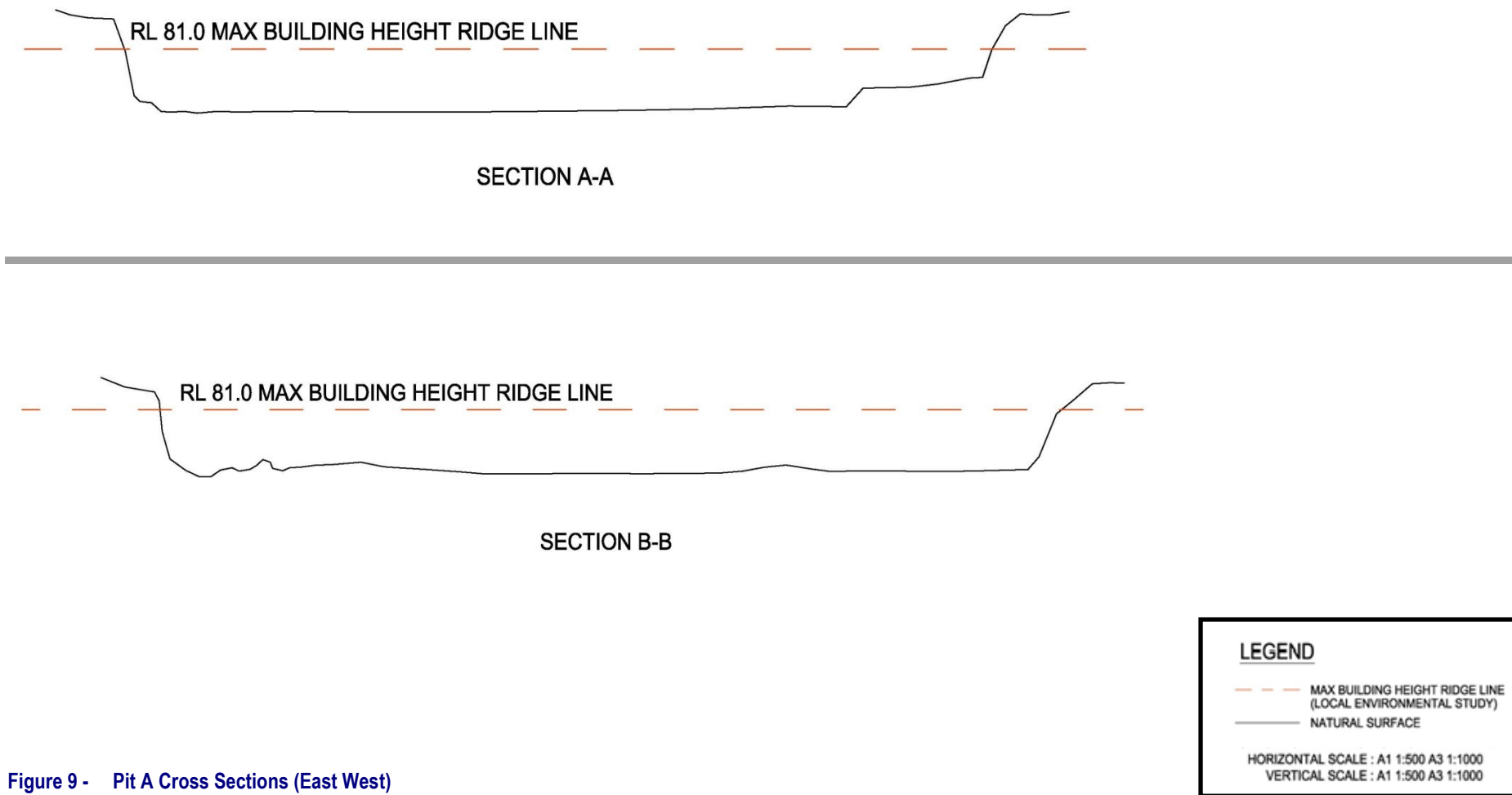


Figure 9 - Pit A Cross Sections (East West)

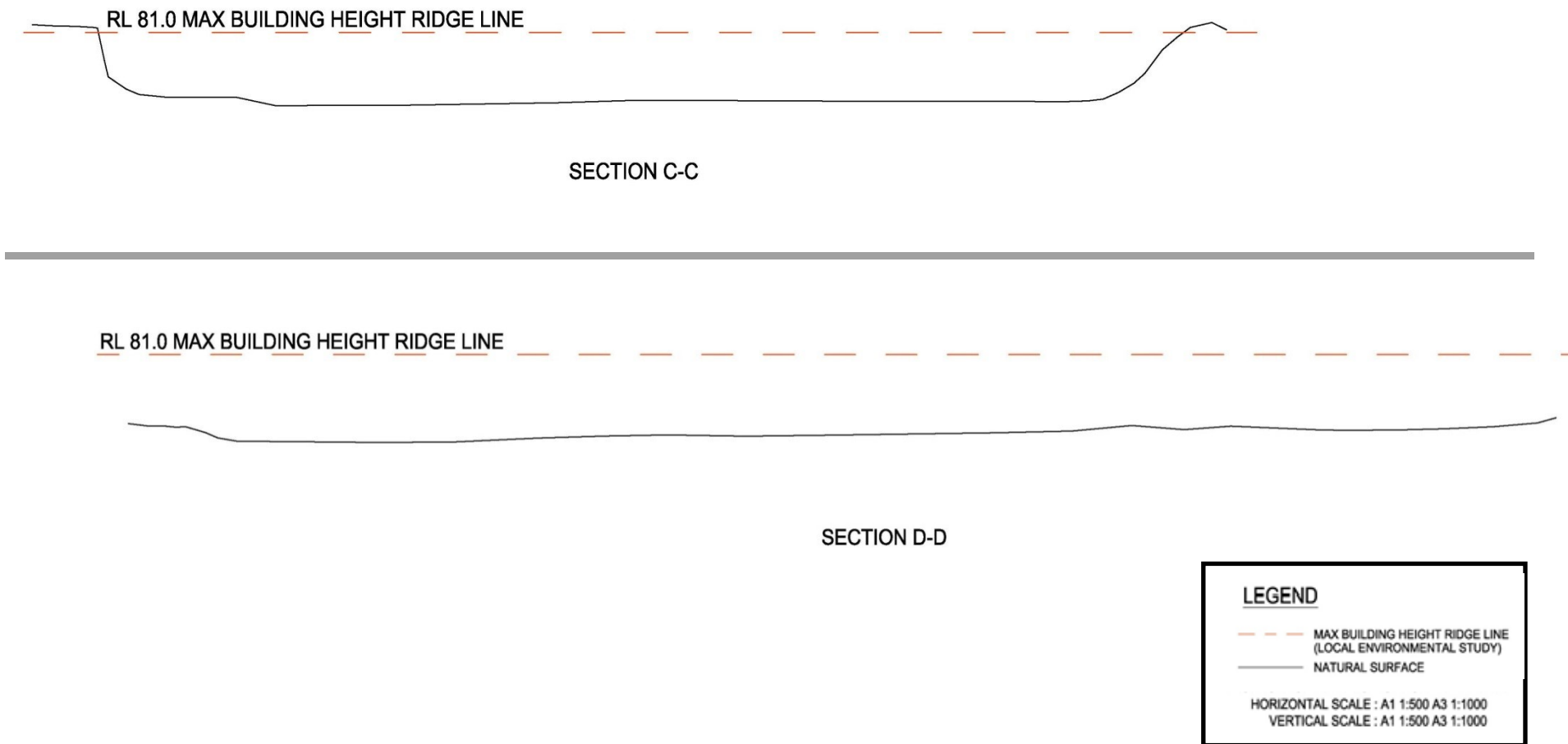


Figure 10 - Pit A Cross Sections (East West)

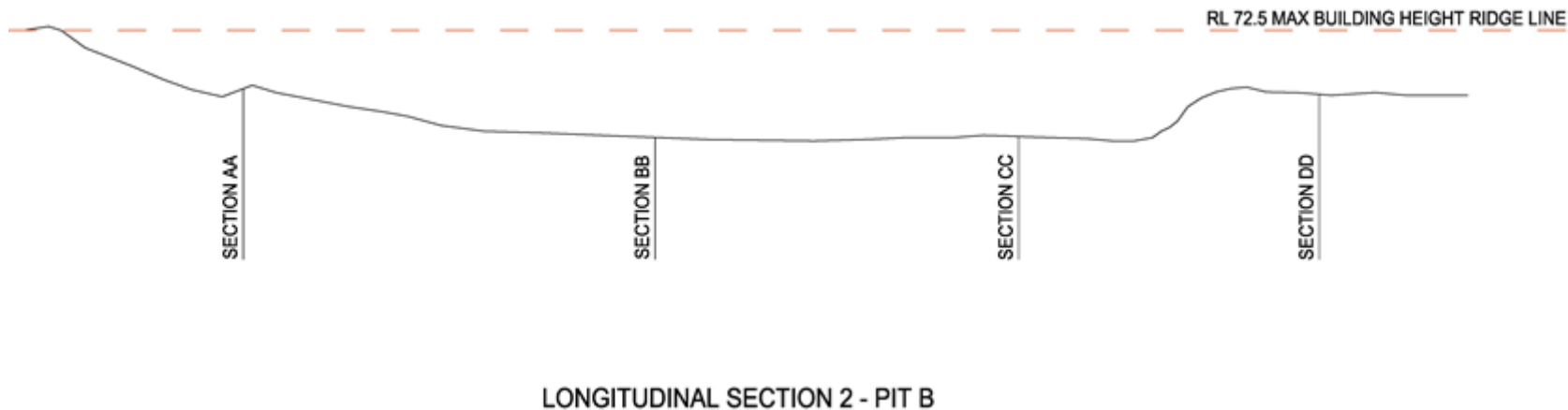


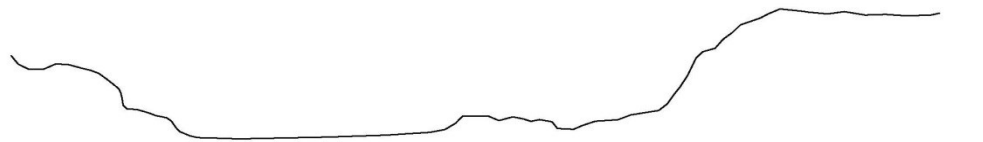
Figure 11 - Pit B - Longitudinal (North South) Cross Section



LEGEND	
	MAX BUILDING HEIGHT RIDGE LINE (LOCAL ENVIRONMENTAL STUDY)
	NATURAL SURFACE
HORIZONTAL SCALE : A1 1:500 A3 1:1000	
VERTICAL SCALE : A1 1:500 A3 1:1000	

Figure 12 - Pit B Cross Sections (East West)

RL 72.5 MAX BUILDING HEIGHT RIDGE LINE



SECTION B-B

RL 72.5 MAX BUILDING HEIGHT RIDGE LINE



SECTION C-C

RL 72.5 MAX BUILDING HEIGHT RIDGE LINE



SECTION D-D

LEGEND	
	MAX BUILDING HEIGHT RIDGE LINE (LOCAL ENVIRONMENTAL STUDY)
	NATURAL SURFACE
HORIZONTAL SCALE : A1 1:500 A3 1:1000	
VERTICAL SCALE : A1 1:500 A3 1:1000	

Figure 13 - Pit B Cross Sections (East West)