

ARBORICULTURAL IMPACT STATEMENT (AIS)

MERCON CONSTRUCTION GROUP PTY LTD

3 Central Ave,  
AVALON BEACH NSW 2107

AIS MCG (SEC 4.55) 05/25 Rev B.

19<sup>th</sup> May, 2025

1. INTRODUCTION & OVERVIEW

- a. The following Arboricultural Impact Statement is for the proposed impacts to Trees 12-17 potentially impacted by modifications to an Approved Seniors Living Development, as per the Notice of Determination made by Northern Beaches Council, Development Application No. DA2020/0008, dated 9<sup>th</sup> December 2020.
- b. The modifications to the approval that impact Trees 12-17, and to be submitted under **Section 4.55** of the *Environmental Planning & Assessment Act 1979* (EP&A Act), include:
  - I. Redesign of front setback to include better designed and more functional access and egress for seniors into residential complex, including new ramp with new entry point from Central Rd.
  - II. Mandating of use of northeastern front setback for the subterranean installation for hydraulic and electrical services.
  - III. Review of the Materials Handling Statement and Site Management Plan that has highlighted the inability to functionally use the site for material storage and handling without *major* disturbance to T12-17 and critical impact to construction processes.
- c. The site was re-inspected by the author of this report given the amount of time since the initial assessment of trees with the likelihood of tree condition having changed, noting the site is devoid of any structures and is somewhat neglected by way of tree maintenance.
- d. The author of this report has reviewed the initial Arboricultural Impact Assessment provided by Raintree Consulting (Ref: RTC-14020), dated 2 September 2020, and uses the same tree numbers to maintain consistency. This AIS evaluates the incursions

imposed by prospective changes to design and site usage given the extent of development related activities, and provides recommendations for management of impacted trees.

- e. This AIS shall be submitted as supporting documentation for the Section 4.55 application to seek approval to modify the approved DA2020/0008 to improve the design of the project and vary the Conditions of Consent.

## 2. METHODOLOGY

- a. The Arborist undertook a Visual Tree Assessment (VTA) on 17<sup>th</sup> January 2025 and uses information about the tree and calculations of TPZ and SRZ tabled in the initial Arboricultural Impact Assessment conducted by Raintree Consulting.
- b. Advanced assessment by means of sounding decay, subterranean investigation or canopy inspections were not undertaken at the time, nor warranted.
- c. Documentation reviewed for this AIS is as follows:

Plan Type/Document	Provided by	Reference	Date
Floor Plan-Ground Floor	Cottee Parker	Job 5914 SD2008 Issue E	19.05.2025
Hydraulic Services Plan	Sparks + Partners	Project 25025 Dwg H1401 Rev 3	13.05.2025
Material Handling Statement & Site Management Plan	Mercon Construction Group Pty Ltd	-	25.04.2025
Arboricultural Impact Assessment Report	Rain Tree Consulting	RTC 14020	02.09.2020

## 3. TREE DATA

- a. The Arborist acknowledges the site accommodates some significant species, notably the *Angophora costata*, *Eucalyptus sp.*, and *Corymbia gummifera*, with the site itself not mapped as having Biodiversity or Terrestrial Biodiversity value.
- b. Table 1 is the tree data used by the author of this AIS to calculate incursions as per AS4970:2009 by the proposed modifications. The Impact Summary provides an analysis of the encroachments imposed on trees by proposed works.

TABLE 1: TREE DATA							
#	Botanical Name	Common Name	DBH	DAB	TPZ	SRZ	Incursion
T12	<i>Corymbia gummifera</i>	Bloodwood	250 200	450	3.84	2.4	>25%
T13	<i>Eucalyptus acmenoides</i>	White mahogany	250	310	3.0	2.0	>25%
T14	<i>Corymbia gummifera</i>	Bloodwood	200	230	2.41	1.8	>35%
T15	<i>Angophora costata</i>	Sydney red gum	500	540	6.0	2.6	10-15%
T16	<i>Eucalyptus robusta</i>	Swamp Mahogany	300	320	3.6	2.1	>25%
T17	<i>Eucalyptus piperita</i>	Sydney peppermint	550 600	1000	9.72	3.3	>50%

#### 4. IMPACT ASSESSMENT (AS4970:2009)

A review of the plans illustrates the following with regards to impacts in accordance with AS4970:2009<sup>1</sup>;

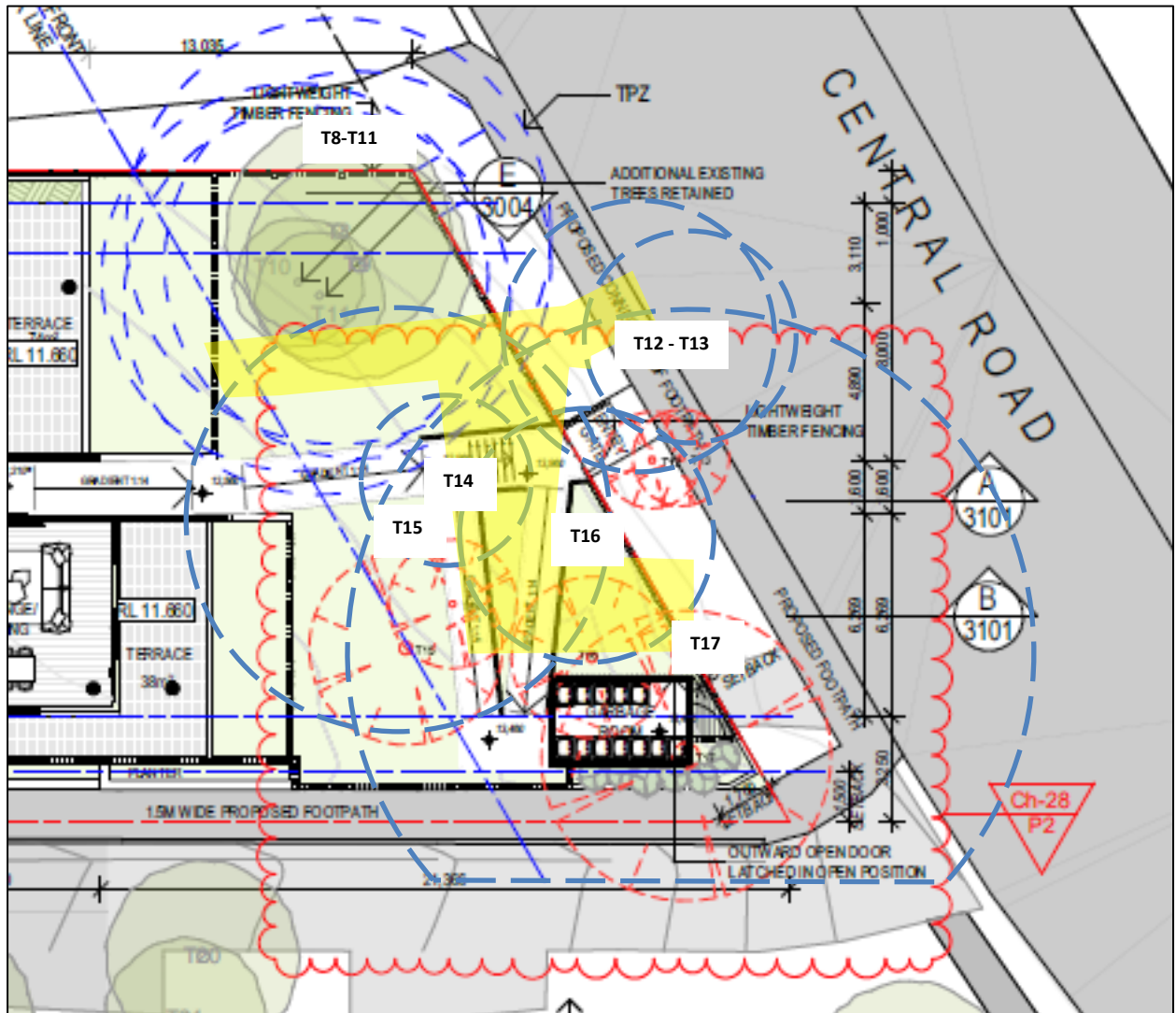
##### 4.1 New Pathway and Ramp

- a. The approved pathway was suspended and meandered through Trees 8- 11 and Trees 14 - 17, with excavation in the SRZ of some trees, to be managed through Arborist supervision. The approved entry from Central Rd. was in the northwestern corner with impacts to Trees 8 to 11.
- b. Current plans suggest the entry to be relocated more centrally on the verge, with T12 and T13 as street trees essentially obstructing access into this entry. The pathway is also now proposed on grade with ramping in the northeastern corner close to Trees 14, 15 and 16 and user of retaining walls within the SRZ of these trees and TPZ of T17. The pathway is now to be configured lineally as opposed to curved, after consultations focused on the benefit of *this* design for seniors, particularly where there is potential for the use of mobility aids including walking frames, wheelchairs etc. The proposed pathway design also now eliminates any major incursions for T8-T11, with the retainer imposing a negligible encroachment as per AS4970:2009.
- c. Figure 1 on Page 4 highlights the extent of TPZ incursion for trees for the proposed Pathway design.

<sup>1</sup> AS4970:2009- Australian Standard- Protection of trees on development sites (AS 4970/2009).

Figure 1: New Pathway Design and Incursions

1:200



TPZ



INCURSION



REMOVAL

#### 4.2 Subterranean Services and Services Area

- a. The proposed installation of subterranean services including hydraulic and electrical infrastructure are mandated to be located in front set back of this development. Given that the *entire* northeastern and northwestern setbacks basically house the TPZ of T8-T17, *any* installation for services would inevitably impact vegetation.

- b. Following extensive consultation, the most viable location for such subterranean services would be the northeastern setback and where T12 - T17 locate. Essentially the excavation for such services would commence at the verge directly through T12 and T13 and continue into the site with excavation through the TPZ of T14 to T17, and as far as the SRZ of some of these trees.
- c. The mandating of a Service Area in the front setback also includes a waste area, where the most viable location is closest to the verge facilitating easier manoeuvring of waste bins for seniors, and this location being essentially directly where T16 and T17 are.
- d. Figure 2 and 3 below show redirected incursions from T8-T11 to T12-T17 for services .

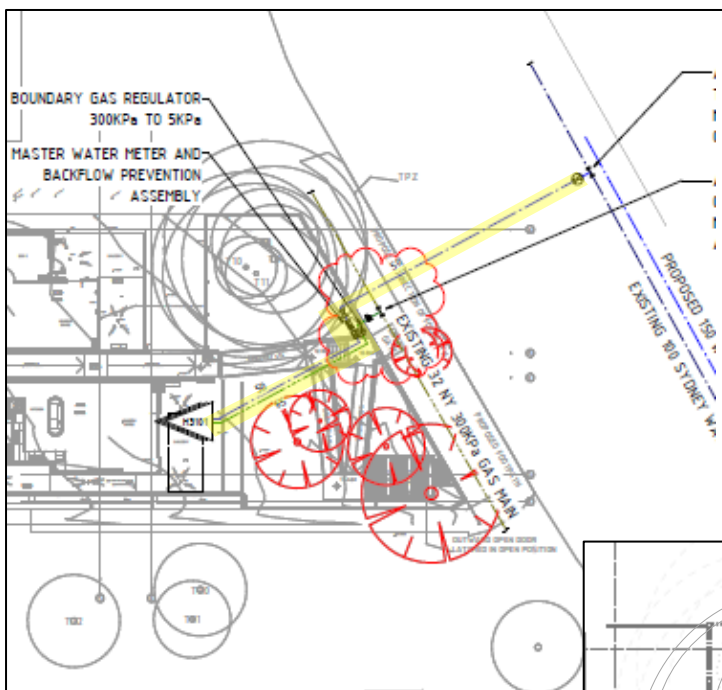


Figure 2: Hydraulic Plans NTS

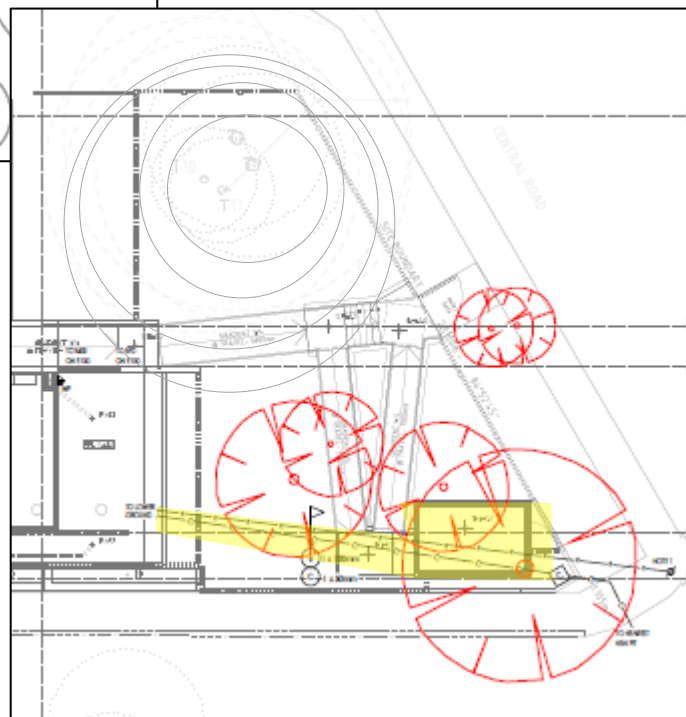


Figure 3: Services Plan NTS

#### 4.3 Construction Methodology

- a. Consultation with the builder and site managers have alluded to the limited spatial allowance to facilitate the construction of a development of this magnitude given that the entire front setback is designated as tree protection zones for both stands of trees, as well as a large portion of rear, also dedicated to protecting trees.
- b. In accordance with 4.2 of AS4970:2009, the use of the TPZ of trees is strictly prohibited for the facilitation of works, including materials storage and handling, parking of vehicles and machinery and establishment of temporary site structures.
- c. During the process of consultation for the Section 4.55 redesign, the discussion around the *potential* removal of some trees in the front setback for “other” reasons also meant the Site Management could dedicate a *sufficient* amount of area *required* in front setback for the functionality in building a development of this size.
- d. The Plan illustrates the necessity to have a main entry and exit point for vehicles to the site via Central Rd as opposed to Patterson Lane. The Materials Handling Statement confirms the following “due to the properties surrounding roads and pathways, there is limited access for trucks involved in the construction processes such as ground works and deliveries throughout. This is especially significant along Patterson Lane as the road width will not allow for trucks to receive or deliver equipment & material. With this restraint the main truck movements will need to be undertaken at the front of the property along Central Rd.”
- e. Whilst the Arborist is unable to make judgments on *how* the client is required to facilitate the construction of such a development, it would be amiss if the Arborist did not take into consideration the practicalities on site that would ultimately impact trees should a proper site management process not be developed nor carried out. The Materials Handling Statement goes on to say “the construction of this development cannot be achieved without the removal of these trees as there are multiple constraints on truck movements ..... If the trees in this corner remain (Trees 12,13, 14, 15, 16 & 17) they are certain to be further damaged by incidental means in the material handling process”.
- f. The site density is extensively increased with this development and therefore the allowable areas to conduct such tasks is therefore limited, keeping in mind that there are also tree protection zones in the rear of the site that limit use of this set back as well.



## 5. DISCUSSION & CONCLUSION

- a. The Arborist acknowledges that the trees recommended for removal, being T12-T17, as part of the Section 4.55 modifications are significant species, although such specimens are not officially mapped in Pittwater Local Environmental Plan 2014 or NSW Planning Portal as Native Vegetation or as having Biodiversity Value.
- b. The re-inspection of trees by the Arborist has concluded that the condition of Trees 12-17 is not necessarily suitable for long term retention, irrespective of species significance. The initial report prepared by Raintree Consulting did indeed refer to trees as either “suppressed”, “stressed”, or presented with “slight” or “significant decline”, and recommended the removal of T12 and T13. It is clear that tree condition has certainly not improved since 2020, and has indeed deteriorated.
- c. Based on current observations, the Arborist notes the following for tree condition and their impact from the Section 4.55 modifications:

- i. T12 and T13 – Street trees on the Central Rd verge, unlikely formally planted by Northern Beaches Council and more likely to be off shoots of site vegetation. Located too close to each other, unmaintained with canopy conflict and no real amenity. Both trees are directly in front of the proposed new pedestrian entry and will require removal.



- ii. T14, T16 and T17 were all assessed as having low retention value based on their current condition, with suppressed or sheltered canopies, each with some degree of decline noted, poor trunk form (especially for T16, and T17 with both skewed and radical leans), and overall not long term retention candidates. All

three trees would be subject to major disruption of roots and canopy for the section 4.55 Modifications.



- ii. The conclusion for T15 is that the canopy also presented somewhat suppressed, but more so the realisation that this tree would become a single specimen and lose the protection has been afforded up until now should T14 ,T16 and T17 be removed. The tree would further become susceptible to unfamiliar wind loads and management of this tree as an asset in the front setback of a seniors development, hovering over the main access and egress points, would be challenging. The tree is central to the front northeastern setback with it being exposed to incursions both from the approved building footprint , and now the further excavations for retainers and provision of services, accumulating to an unsustainable amount of impact as per AS4970:2009.





- d. Regarding the modified pathway design and ramping , the Arborist makes comment that the initial design imposed impact on *both* patches of vegetation , being T8 -T11 and T12 – T17. The realignment of the pathway and designing it in a linear configuration relieves T8 -T11 of any significant impact and overall the design is now able to provide better functionality for the site and its prospective residents, being seniors. The Arborist also notes that T8-T11, collectively, have higher retention value than T12-T17 and are better suited for long term retention on this site. See T8-T11 right.



- e. The establishment of utilities to service this type of development is mandated in the front setback and with the redesign for pathway to occupy the front northeastern area, the opportunity to utilise this space, potentially free of any TPZ , would allow for the installation of subterranean services with no limitation around trees , and allow for a Service Area to be created in this location , for better site management. The dedication of some area within this front setback for a Bin Storage Area is also the most viable option for Seniors , given the proximity to the verge for bin collection.
- f. The Arborist would never consider the removal of trees purely to satisfy the construction management requirements of a site should the tree have high retention value. Consultation between the Arborist, Builder and Site Managers would have to focus around maintaining an adequate tree protection area and not allowing for construction related activities such as storage, temporary site structures, and vehicle stationing or parking within this area. However, in this case, the Arborist has considered the current condition of T12-T17 as not optimum, as well as supporting their removal for reasons relating to more effective site access, and adherence to other planning controls that would relate to this type of development. Therefore, the removal of such trees would *also* result in the creation of adequate area to be included in the Site Management Plan to better facilitate development activities, and essentially allowing those other trees on site to be retained and protected, to remain clear of such TPZ encroachment.
- g. The recommendation to remove trees, particularly those that are significant species, is never a decision made lightly by the Arborist, however the Section 4.55 modification has brought about some further issues that potentially were not taken into consideration with the initial Arborist Assessment and the Conditions of Consent. The Section 4.55 could be seen as an opportunity to focus on proper tree management across the site as a whole, with long time retention being a major priority.

## 6. RECOMMENDATIONS

- a. The Arborist supports the removal of trees 12-17 as part of the Section 4.55 Modification Application.
- b. To mitigate the loss of such trees, the client at his expense, must replant a minimum of two (2) trees strategically on the verge where they can remain for the long term. The Arborist ensured that the trees chosen are species from the endorsement list published on Northern Beaches Council website with either Crepe Myrtle or the Weeping Lily pilli being options, both reasonably sized trees with high streetscape amenity.

- c. To mitigate the loss of site trees the Arborist recommends that a Sydney Red gum and Cheese tree be the selected species to be used as replanting. The planting locations must ensure that long term retention is a major priority with sufficient area for root and canopy growth, with root protection barriers being installed if and where necessary.
- d. For trees to remain viable, the following must be implemented as part of the proposal;
  - i. Given the significance of other trees on this site, *any* works approved in the TPZ of any retained tree, must be supervised by the Project Arborist at all times.
  - ii. The entire process of installing underground serves and infrastructure must be supervised by a Level 5 Arborist.. Any excavation in the TPZ of trees must be hand dug , or hydro excavated. If hydro excavated the PSI must be lowered to avoid any undue harm to roots.
  - iii. The new pathway would be best installed as porous pavement to the benefit of existing and future trees. The installation of the pathway where it enters the TPZ of T8-T11 must be supervised by the Project Arborist.
  - iv. The Arborist is to review any further amendments to this design to evaluate if trees will be impacted or not.
  - v. Retained trees are to be protected in accordance with AS4970:2009, and as per the initial Arborist recommendations and DA Conditions

*Yours Faithfully,*



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