Fiddlehead Landscape Design Pty Ltd

Arboriculture

Horticulture

Landscape Design

Supplementary Arboricultural Impact Assessment Report

Village 5 Playground, Jordan Springs, NSW

Prepared for:
Clouston Associates

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Issue: A

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1. Introduction

This report was commissioned by Clouston Associates in relation to 33 trees in close proximity to the proposed playground at Melaleuca Park and Eastern Lake, Jordan Springs. This report was prepared by Sally Arnold, the principal of Fiddlehead Landscape Design Pty Ltd.

This report is supplemental to the Arboricultural Impact Assessment Report prepared by Arboreport dated 23rd June 2015 (the Arborist Report).

Amendments have been made to the design of the proposed playground area since the Arborist Report was completed. The objectives of this report are to review the supplied plans to determine if there are any changes to the likely impact of the proposed development on the trees. This report does not review information relating to all the trees assessed in the Arborist Report but only those affected by amendments to the playground design as shown by the documents listed below.

This report does not replace the Arborist Report and provides supplementary information only. This report should be read in conjunction with the Arborist Report.

The following documents supplied by Clouston Associates were viewed in the preparation of this report:

- Landscape Plan Jordan Springs – Melaleuca Park and Eastern Lake, dwg no. JOR-0013, DA 08, Issue C, dated 21.08.15, prepared by Clouston Associates;
- Tree retention and tree removal plan, dwg no. JOR-0013 DA 14, Issue A, dated 16.06.15, prepared by Clouston Associates;
- Landscape Plans, dwg nos. JOR-0013 DA 14, DA 15, DA 16, DA 17 and DA 18, Issue C, dated 21.08.15, prepared by Clouston Associates;
- Melaleuca Park - detailed Plan, dwg no. JOR-0013 DA 14, Issue C, dated 21.08.15, prepared by Clouston Associates;
- Play Equipment Plan-001, dwg no. JOR.0013 LA BASE, dated 08.09.15, prepared by Clouston Associates; and
- Arboricultural Impact Assessment report, revision: Issued Development Application, dated 23.06.15, prepared by Arboreport.

One site visit mas made on 17th August 2015 to view the trees and understand the site context. The weather was clear and sunny during the visit.

The recommendations made in this report are subject to approval by the relevant consent authority.

2. Assumptions

We have assumed that the contents of the Arborist Report (including but not limited to details of the health, condition, landscape significance, ecological value, retention value, impact of the proposed works, all plans and all measurements (such as stem diameter at breast height (DBH), stem diameter at base of stem (DGL), tree protection zone (TPZ) and structural root zone (SRZ)) are correct. These details have not been checked and have been relied upon in the preparation of this report.

No additional data in relation to the trees has been collected by us. No visual assessment of the trees has been carried out. A risk assessment in relation to the trees was not carried out. No excavation or investigation has been carried out to examine the soil or tree roots.

The impact assessment contained in this report is based upon the plans supplied by Clouston Associates. It has been assumed that the location, stems, tree protection zones and structural roots zones of all trees are accurately shown on the plans. There appears to be slight variation in layout between the final CAD drawing and rendered plan supplied. We have assumed that the CAD drawing is correct and have used this plan when calculating incursions to the tree protecton zone and structural root zone of the trees.

The author cannot guarantee or be responsible for the accuracy of information provided by others relied on in the preparation of this report. No geotechnical, hydrological or construction information (other than that referred to below) has been supplied.

No express or implied representation, warranty or guarantee is made in relation to the health, condition or stability of the trees included in this report, on the site or on neighbouring land. This report does not cover all the trees in close proximity to the proposed playground. This report provides recommendations in relation to tree management only and separate advice should be sought in relation to construction design and methodology.

3. Arboricultural Impact Assessment

3.1 Amendments to the proposed development

The amended proposed development is shown on the plans provided by Clouston Associates listed in section 1. Changes to the playground design consist of:

- changes to the overall playground footprint (size and shape);
- changes to the location of the concrete paths to the east and west of the playground; and
- changes to the size and shape of the rubber and mulch softfall surface treatments; and
- changes to the type and location of the features and play equipment to be installed.

3.2 Proposed construction methodology

The documents provided, and advice from Clouston Associates, specify the proposed construction methodology to be as follows:

Surfaces:

- Concrete path - minimum excavation depth 125mm, concrete laid on a compacted subgrade
- Rubber softfall - minimum excavation depth 200mm, rubber laid on a concrete, asphalt or compacted stone base
- Wood chip mulch softfall - minimum excavation depth 300-400mm
- Sandpit - 600mm excavation depth, sand laid on top of geotextile, no compaction

Play equipment:

- Carved native critter - large sandstone carving that sits on the ground, no excavation
- Pulgi - isolated steel bars into the ground, no excavation or footings
- Weir and water pump - excavation for isolated footings 800mm x 500mm x 500mm
- Steppers (with native insects) of varying heights - timber, minimum excavation 300mm, maximum excavation 600mm, possibly a trench excavation and a strip footing given the steppers are placed close together in lines, compacted subgrade
- Gathering circle with mushroom seats - minimum excavation 300mm
- Frog and frogs eggs - bolted to a concrete surface, minimum excavation depth 150mm, concrete laid on a compacted subgrade
- Heron climbing structures - minimum excavation depth 1200mm, width 1500mm for footings
- In-ground trampoline - maximum excavation depth 750mm for footing
- Double swing - maximum depth 800mm for footings
- Timber climbing maze - minimum excavation 120mm for footings
- Balancing logs - large timber logs fixed with isolated bolts, no excavation or footings

Miscellaneous

- Seating - bolted to a concrete base, minimum excavation 200mm, concrete laid on compacted subgrade
- Bins - fixed to a concrete base, minimum excavation 200mm, concrete laid on compacted subgrade
- Bicycle racks - no information provided

3.3 Impact of the proposed development on the trees

All of the trees in close proximity to the proposed playground are native comprising mainly *Corymbia maculata* (Spotted Gum), *Eucalyptus punctata* (Grey Gum) and *Eucalyptus crebra* (Narrow-leaved Ironbark). All of the trees have environmental value, are part of the urban forest canopy within the Penrith local government area and are protected under the Penrith City Council tree management controls.

The trees are shown on the Tree Location Plan attached as Annexure 1. The tree landscape significance (as calculated in the Arborist Report) of the trees are shown on the same plan. The plan is based on plans provided by Clouston Associates listed in section 1. It has been assumed that the plans accurately show the location of the trees, tree protection zones, structural root zones and amendments to the proposed playground design.

Trees vary in their tolerance to impacts of construction activity such as root damage. In addition, factors including tree species, tolerance of root disturbance, tree stability and lean, the age, vigour and size of the tree, topography, soil characteristics and soil volume all need to be considered when determining acceptable levels of encroachment into a tree protection zone. In general, young, healthy, vigorous trees are more resilient to environmental change and root loss than older trees which have less energy reserves. In addition, mature trees may have already been affected by construction in the past.

The following factors have been considered in assessing the impact of the proposed development on the trees:

- Tree Protection Zone (TPZ);
- Structural Root Zone (SRZ);
- Incursions to the root zone (TPZ and SRZ), and
- The distance from the stem to the closest point of proposed construction works.

This report provides an assessment of changes in the impact on the trees due to changes in the layout of the playground. No over-excavation has been allowed for in the Arborist Report and, for consistency, is not provided for in the calculations made in the preparation of this report.

An incursion into a tree protection zone of more than 10% is considered to be major in accordance with AS 4970 - 2009 *Protection of Trees on development sites*. However arboricultural experience indicates that an incursion of 10-15% may be considered to be a low to moderate level of impact depending on the age of the tree and provided the tree is in good health and vigour.

The nature of the proposed works is a critical factor in assessing the impact on a tree. Most tree roots grow in the top 300mm of the soil with the majority often in the top 150mm and surface leaf litter. Because of this trees are often adversely affected by compaction during construction works which can decrease oxygen levels, moisture penetration and gaseous exchange necessary for root growth, slow or stop root growth and limit the rooting area. Trees are also adversely affected by loss of roots. The various excavation works detailed under 3.2 Proposed construction methodology are likely to damage or sever roots reducing the trees' root systems.

Loss of major roots within the structural root zone of the tree and/or loss of root system on one side of a tree may destablise the tree.

The impact of the amended development upon the trees close to the proposed playground is as follows:

Tree 7 - A less than 1% incursion to the tree protection zone (previously none) due to a change in the route of the concrete path to the west of the playground. This is considered to be a minor encroachment under AS 4970 - 2009. The Arborist Report states that the tree is in good health and good condition, has medium landscape significance, medium amenity value and high ecological value. Based on this information the tree should be retained.

Tree 8 - A 47.6% incursion to the tree protection zone (previously 39.1%) and 35% incursion to the structural root zone by the concrete path because of the change in location. Although the Arborist Report states that the tree is in fair health it is unlikely to survive this significant level of incursion and will need to be removed.

Tree 16 - Zero incursion (previously 1%) due to a change to the route of the rubber softfall path. The Arborist Report states that the tree is in average health and average condition, with medium to high landscape significance, medium to high visual value and medium ecological value. Based on the information the tree should be retained.

Tree 24 - A 10.6% incursion to the tree protection zone (previously 36.3%) from the rubber softfall around the trampolines. Despite the moderate level of incursion the Arborist Report records that the tree is fair to average health and has bottle butt. The tree should be removed.

Tree 25 - A reduction in the incursion to the tree protection zone from 34.2% to 7.4%. Although this is considered a minor incursion under AS 4970 - 2009, the Arborist Report notes that the tree is in average health only with large branch dieback and poor form. This tree should be removed.

Tree 26 - The proposed changes slightly reduce the incursion to the tree protection zone of this tree from 28.3% to 24.9% due to excavation for both rubber and mulch softfall. This is still a high impact and the tree may not survive. The proposed works also encroach into the structural rootzone by 10%. The Arborist Report records that the tree is in poor to fair health only with visible structural defects. The tree will need to be removed.

Tree 27 - An increase in the incursion to the tree protection zone from 9.6% to 30.9% due to excavation for the rubber softfall path. This is a significant impact and the tree is unlikely to survive. There is also a 24.2% incursion in the structural root zone of this tree which may destablise the tree. The Arborist Report states that the tree is in poor health and poor

structural condition and has low significance and low amenity value. The tree will need to be removed.

Tree 28 - An increase in the incursion to the tree protection zone from 20.1% previously to 25.9% and an 18.3% incursion to the structural root zone of the tree caused by excavation for the rubber softfall path. This is a high level of incursion and the tree may not survive. The tree may be destablised and will need to be removed.

Tree 29 - A 3% incursion to the tree protection zone of the tree (previously no incursion). This is considered to be minor under AS 4970 - 2009 however it was noted in the Arborist Report that the tree is suppressed, in poor health, fair structural condition with a small high crown, epicormic growth, low significance and low amenity value. The tree should be removed.

Tree 36 - A 2% incursion to the tree protection zone of this tree (previously no incursion) by the construction of the western concrete path. However the Arborist Report states that the tree is in fair health and poor to fair condition with significant structural defects and poor form. The tree should be removed.

Tree 38 - The tree now lays within the footprint of the circular area of concrete paving under the frog (100% incursion to both the tree protection zone and structural root zone, previously 38.6%). This tree will need to be removed.

Tree 39 - A 100% incursion to the tree protection zone due to the steppers with native insects which will go through the centre of the stem, the other elements comprising a 25.9% incursion (previously 35.7%). The Arborist Report states that the tree is in poor health and fair condition with visible structural defects, deadwood to 60mm in diameter, low landscape significance and low amenity value. The tree will need to be removed.

Tree 40 - No change. The tree protection zone of the tree is within the mulch and rubber softfall areas (a 100% incursion to the tree protection zone and structural root zone of the tree, as with the previous playground layout). The Arborist Report states that the tree is in poor to fair health and has low landscape significance and low amenity value. This tree will need to be removed.

Tree 46 - The tree lays within the footprint of the rubber and mulch softfall areas close to the swings (a 100% incursion to both the tree protection zone and structural root zone of the tree, previously a 37.6% incursion to the tree protection zone). The Arborist Report notes that the tree is in poor health and average condition with minor structural defects and extensive epicormic growth. The tree will need to be removed.

Tree 47 - No change. The softfall path runs through the centre of the tree protection zone. Seating, bins and the trampolines are also located within the tree protection zone. The tree

was located within the play area in the previous layout. The Arborist Report states that tree is in fair health, fair-average condition and has low landscape significance and low amenity value. The tree will need to be removed.

Tree 48 - An incursion of 32.4% (previously 20.5%) to the tree protection zone and an incursion of 35.8% to the structural root zone caused by the circular mulch softfall area under the heron climbing structures. This is a significant impact and the tree is unlikely to survive. The high incursion to the structural root zone may cause the whole tree to fail. The Arborist Report states that the tree is in poor health and fair structural condition with minor structural defects and poor form. The tree has low landscape significance and low amenity value. The tree will need to be removed.

Tree 49 - A 3% (previously 0%) incursion to the tree protection zone of the tree due to the frog, part of the frogs eggs and circular area of concrete under the frog and frogs eggs, and mulch softfall close the heron climbing structure. This is considered to be a minor incursion under AS 4970 - 2009. According to the Arborist Report the tree is in average health and average condition and has medium landscape significance, amenity value and ecological value. Based upon this information the tree should be retained.

Tree 50 - A less than 1% incursion to the tree protection zone (previously 9.6%) due to the rubber softfall path. This is considered to be a minor incursion under AS 4970 - 2009 and the tree should survive the construction works. However the Arborist Report nominated this tree for removal because it was considered to be in average health, poor to fair condition with significant structural defects visible including pronounced ribbing between co-dominant stems at 5 metres. This tree should be removed.

Tree 51 - A 1.5% incursion to the tree protection zone due to the channels cut for the weir (previously no incursion). The Arborist Report states that the tree is in average health and average condition with medium landscape significance, amenity value and ecological value. Based on this information, the tree should be retained.

Tree 52 - A 100% incursion to the tree protection zone of the tree (previously 16.3%). The stem of the tree is within the concrete footpath to the west of the playground. The Arborist Report states that the tree is in average to good health but poor condition with significant structural defects visible. The tree has low landscape significance and low visual amenity. The tree will need to be removed.

Tree 57 - No incursion to the tree protection zone (previously 12.1%) due to the change in location of the concrete path to the west of the playground. The Arborist Report states that the tree is in average health, average condition and has low to medium landscape significance, low to medium amenity value and high ecological value. Based on this information the tree should be retained.

Tree 58 - A 37.1% incursion to the tree protection zone (previously 17.3%) and a 29.6% incursion to the structural root zone of the tree due to the sandpit and rubber softfall path. The Arborist Report states that the tree is in good health and good condition and has high ecological value. The incursion to the tree protection zone is significant and the tree is unlikely to survive. The high incursion to the structural root zone could destablise that tree. The tree will need to be removed.

Tree 62 - A 100% incursion to the tree protection zone (previously none) and structural root zone of the tree because the stem of the tree is within the mulch softfall surrounding the double swing. The tree will need to be removed. The Arborist Report states that the tree is in fair to average health and condition, has a low to medium landscape significance, low to medium amenity value and has a medium ecological value.

Tree 63 - A 100% incursion to the tree protection zone (previously 3.7%) and the structural root zone of the tree because the stem of the tree is within the layout of the rubber softfall path. The tree will need to be removed. The Arborist Report notes that the tree is in poor health and average condition with low landscape significance, low amenity value but high ecological value.

Tree 64 - A 7.8% incursion to the tree protection zone of the tree (previously 10.3%). Under AS 4970 - 2009 this is considered to be a minor incursion and the tree is considered to be sustainable. However the Arborist Report nominated this tree for removal because it is stated to be in poor health, poor to fair condition with extremely low vigour and 100% epicormic growth. The tree has a low landscape value and low visual amenity. Irrespective of the amendments to the proposed development, this tree should be removed.

Tree 65 - No incursion to the tree protection zone (previously 32.7%). Despite the high incursion, the Arborist Report nominated this tree for retention. The tree is noted as being in average health and condition, with a medium landscape significance, medium amenity value and medium ecological value. Based upon this information, the tree should be retained.

Tree 67 - A 47% incursion to the tree protection zone (previously 18%) and a 45% incursion to the structural root zone due to the amended route of the concrete path to the west of the playground. The path is located immediately to the east of the stem of the tree. The tree will not survive such a severe incursion and will need to be removed. The Arborist Report states that this tree is in average health and poor condition with significant structural defects. The tree has a low landscape value and low amenity value.

Tree 68 - A 6.1% incursion to the tree protection zone (previously none) due to the amended route of the concrete path to the west of the playground. Under AS 4970 - 2009 this is considered to be a minor incursion and the tree is considered to be sustainable. However the

Arborist Report nominated this tree for removal because it is stated to be in fair to average health, poor condition with significant structural defects visible. The tree has a low landscape value and low visual amenity. Irrespective of the amendments to the proposed development, based information contained in the Arborist Report, this tree should be removed.

Tree 70 - No incursion to the tree protection zone (previously 31%) due to changes in the location of the concrete path to the west of the playground. The Arborist Report states that this tree is in poor to fair health and average structural condition. The tree has low landscape significance and low visual amenity but high ecological value. Based on the information in the Arborist Report this tree should be retained.

Tree 71 - No incursion to the tree protection zone of this tree (previously 9.7% and nominated for retention). The Arborist Report states that this tree is in fair health, average condition, has a low to medium landscape significance, low to medium amenity value and medium ecological value. This tree should be retained.

Tree 72 - A 13.7% incursion to the tree protection zone (previously none) and a very minor (less than 1%) incursion to the structural root zone of the tree due to the construction of the sandpit. This is considered to be a major encroachment under AS 4970 - 2009. The Arborist Report states that the tree is in poor to fair health, fair condition with 15-20% deadwood in the crown, has a low landscape significance and low amenity value. Trees in fair to poor health which are impacted by such disturbance will generally decline over a period of years following the disturbance (development works). As trees decline, dieback and deadwood increase in the canopy with increased risk of falling branches. The tree will need to be removed.

Tree 78 - A 13.8% incursion to the tree protection zone (previously none). The site inspection revealed that this tree has already been removed.

Tree 79 - A 100% incursion to the tree protection zone (previously 13.8%) and structural root zone because the stem of the tree is located within the footpath of the rubber softfall path. The Arborist Report notes that the tree is in poor health and average condition, has a low landscape significance and low amenity value. This tree will need to be removed.

4. Conclusions

Of the 33 trees assessed, eight have been identified for retention and protection and 24 trees will be will require removal. One tree (Tree 78) has already been removed.

Of the 24 trees identified for removal due to the proposed development, five of these have a low to medium tree landscape significance and the remainder have a low tree landscape significance. The trees are set out in Table 2 under section 5 Recommendations below.

5. Recommendations

Both this report and the Arborist Report must be read when considering the trees on the site.

This report covers only the 33 trees impacted by changes to the playground design shown by the documents provided by Clouston Associates listed in section 1. The Arborist Report covers 81 trees on the site. The comments set out in the Arborist Report relating to the 48 trees not included in this report remain unchanged.

The Arborist Report specifies hold points and tree protection measures. These apply to all 81 trees on the site and are unaffected by this report. All trees being retained should be protected during the construction works.

As a consequence of the amendments to the proposed design eight trees should be retained, and 17 trees will need to be removed. In addition, seven trees should be removed irrespective of changes to the design. These trees are identified in Tables 1 and 2 below.

Table 1: Trees to be retained

Tree No.	Tree genus (species)	Tree Landscape Significance
7	*Eucalyptus crebra* (Narrow-leaved Ironbark)	Medium
16	*Corymbia maculata* (Spotted Gum)	Medium-high
49	*Corymbia maculata* (Spotted Gum)	Medium
51	*Corymbia maculata* (Spotted Gum)	Medium
57	*Eucalyptus crebra* (Narrow-leaved Ironbark)	Low-medium
65	*Corymbia maculata* (Spotted Gum)	Medium
70	*Eucalyptus crebra* (Narrow-leaved Ironbark)	Low
71	*Corymbia maculata* (Spotted Gum)	Low-medium

All tree removals should be carried out by an arborist with a minimum qualification of Certificate 2 in Arboriculture and should be undertaken in compliance with the WorkCover Code of Practice *Amenity Tree Industry* 1998. Stump grinding should not be carried out within the tree protection zone of any tree being retained.

Table 2: Trees to be removed

Tree No.	Tree genus (species)	Tree Landscape Significance
8	*Eucalyptus crebra* (Narrow-leaved Ironbark)	Low-medium
24	*Corymbia maculata* (Spotted Gum)	Low
25	*Eucalyptus punctata* (Grey Gum)	Low-medium
26	*Eucalyptus punctata* (Grey Gum)	Low
27	*Eucalyptus punctata* (Grey Gum)	Low
28	*Eucalyptus crebra* (Narrow-leaved Ironbark)	Low
29	*Eucalyptus punctata* (Grey Gum)	Low
36	*Eucalyptus crebra* (Narrow-leaved Ironbark)	Low
38	*Corymbia maculata* (Spotted Gum)	Low-medium
39	*Eucalyptus punctata* (Grey Gum)	Low
40	*Corymbia maculata* (Spotted Gum)	Low
46	*Eucalyptus parramattensis* (Parramatta Red Gum)	Low
47	*Eucalyptus punctata* (Grey Gum)	Low
48	*Eucalyptus punctata* (Grey Gum)	Low
50	*Corymbia maculata* (Spotted Gum)	Low
52	*Corymbia maculata* (Spotted Gum)	Low
58	*Eucalyptus punctata* (Grey Gum)	Low-medium
62	*Corymbia maculata* (Spotted Gum)	Low-medium
63	*Eucalyptus crebra* (Narrow-leaved Ironbark)	Low
64	*Eucalyptus crebra* (Narrow-leaved Ironbark)	Low
67	*Eucalyptus crebra* (Narrow-leaved Ironbark)	Low
68	*Eucalyptus crebra* (Narrow-leaved Ironbark)	Low
72	*Eucalyptus punctata* (Grey Gum)	Low
79	*Eucalyptus crebra* (Narrow-leaved Ironbark)	Low

6. Bibliography

Harris, RW Clark, JR & Matheny, NP 2004, *Arboricultural Integrated Management of Landscape Trees, Shrubs and Vines*, 4th edn, Prentice Hall, New Jersey USA

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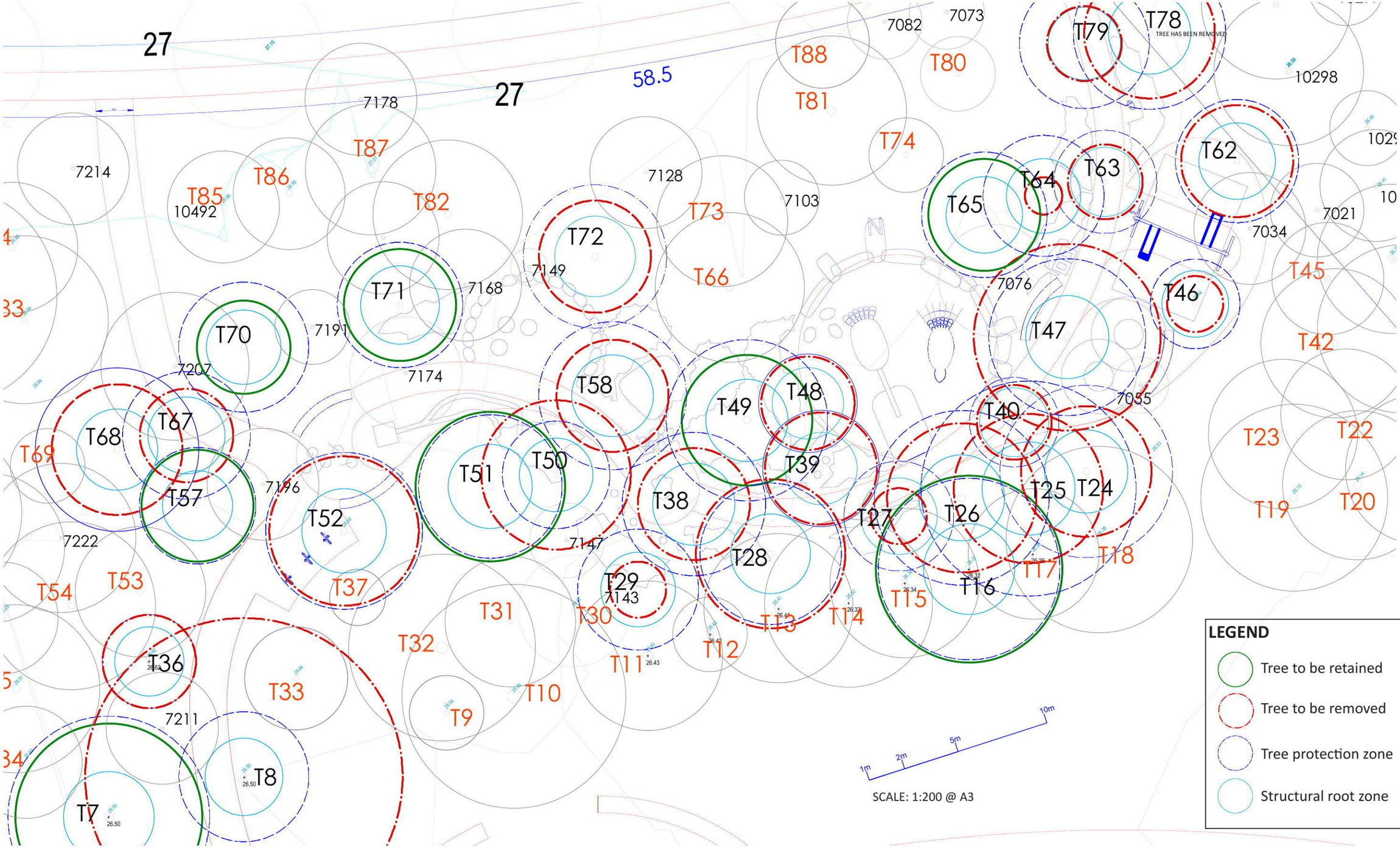
ANNEXURE 1 - TREE LOCATION PLAN



GENERAL NOTES:
1. This drawing should not be used for construction purposes.
2. This drawing should be read in conjunction with every other drawing prepared for the client and with all other consultant's drawings and documentation.
3. All dimensions must be verified on site before commencement of any works. Do not scale from drawing.
4. This drawing is based on survey and engineering drawings provided by Clouston Associates.
5. Inform Fiddlehead Landscape Design Pty Ltd of any discrepancies.
6. Builders must locate and protect all services prior to commencing any works.
7. Copyright Fiddlehead Landscape Design Pty Ltd. This drawing may not be used or reproduced without prior consent.

CLIENT: CLOUSTON ASSOCIATES

PROJECT: Playground, Melaleuca Park, Village 5, Jordan Springs

DRAWING TITLE:
TREE LOCATION PLAN 1

Issue: A
Drawing No: TLP 01
Date: 14 September 2015
Drawn by: SAA

N

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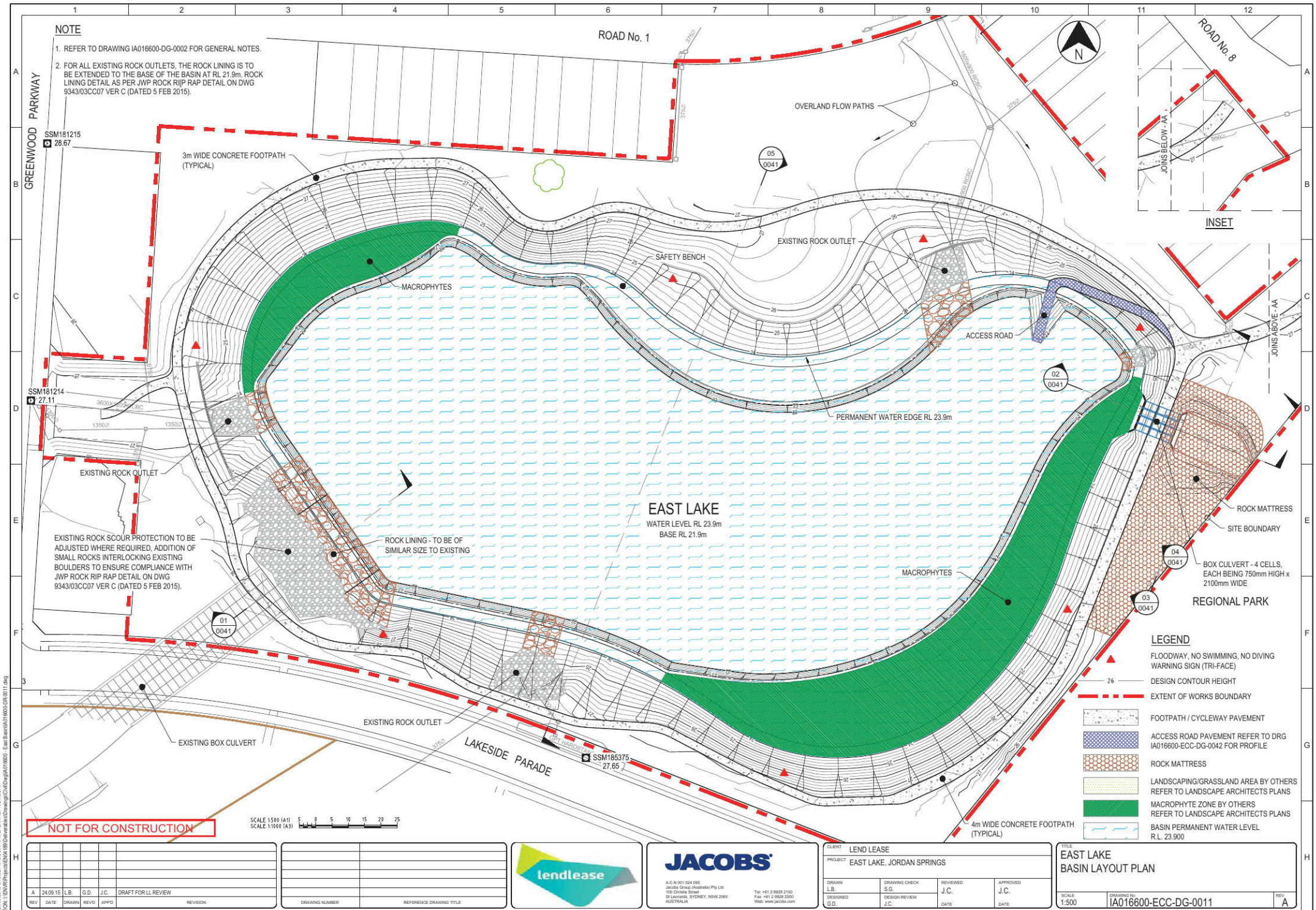

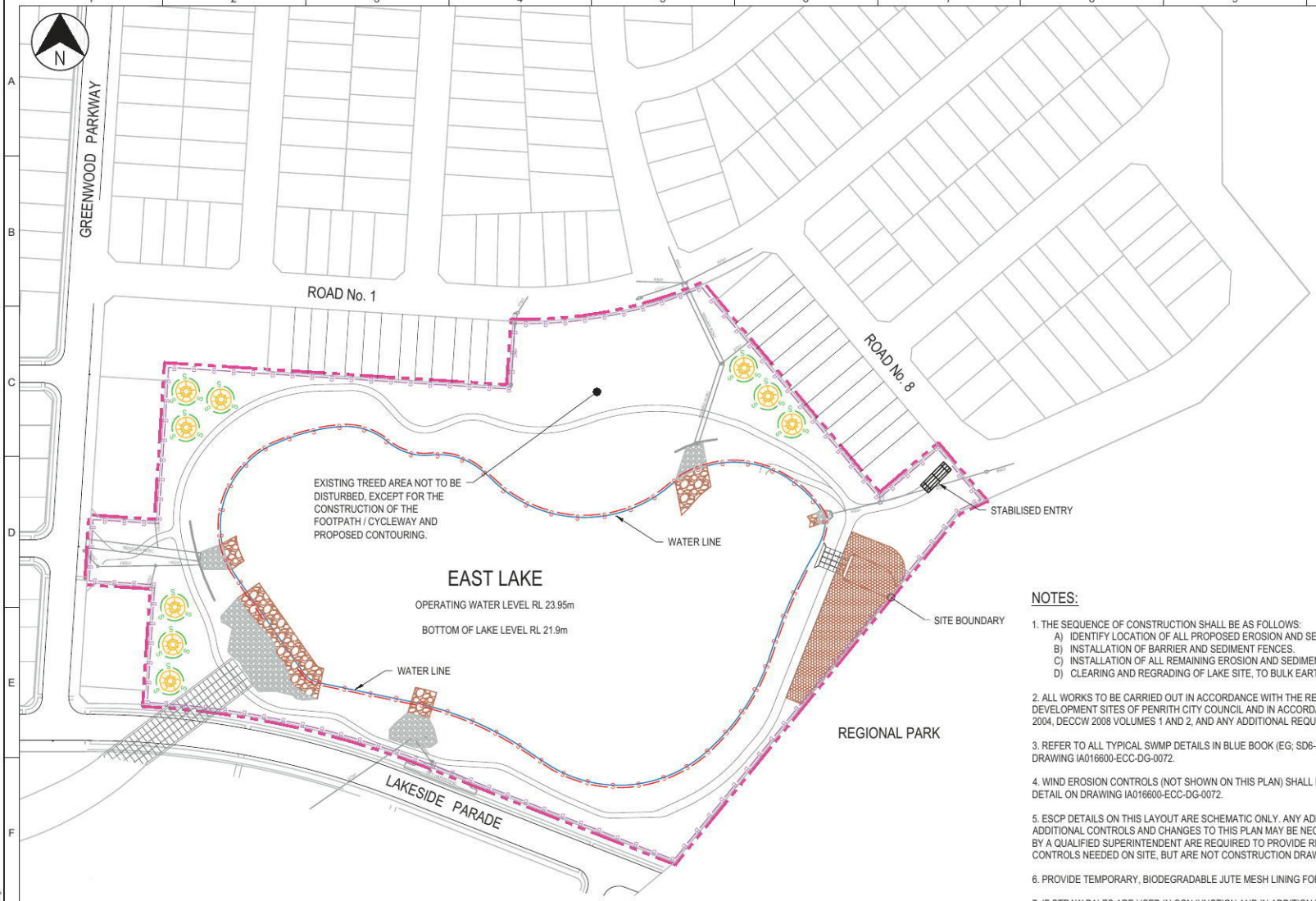

LEGEND

- CONSTRUCTION SITE BOUNDARY (INDICATIVE)
- SEDIMENT FENCE (REFER TO SD 6-8) DOWN SLOPE OF FILL BATTERS.
- BARRIER FENCE (PARA WEBBING)
- SHAKER PAD/STABILIZED ENTRANCE. (REFER TO SD 6-14)
- TOP SOIL STOCKPILE WITH SEDIMENT FENCE (LOCATION INDICATIVE ONLY-NTS.) (REFER TO SD 4-1). APPROXIMATE LOCATION AS SHOWN.

NOTES:

1. THE SEQUENCE OF CONSTRUCTION SHALL BE AS FOLLOWS:
   - A) IDENTIFY LOCATION OF ALL PROPOSED EROSION AND SEDIMENT CONTROL MEASURES ON SITE.
   - B) INSTALLATION OF BARRIER AND SEDIMENT FENCES.
   - C) INSTALLATION OF ALL REMAINING EROSION AND SEDIMENT CONTROLS, INCLUDING STABILISED ENTRANCE.
   - D) CLEARING AND REGRADING OF LAKE SITE, TO BULK EARTHWORKS PLAN.

2. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS FOR "EROSION AND SEDIMENT CONTROL DCP AND CODE OF PRACTICE" ON DEVELOPMENT SITES OF PENRITH CITY COUNCIL AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE 'BLUE BOOK', SOILS AND CONSTRUCTION LANDCOM 2004, DECCW 2008 VOLUMES 1 AND 2, AND ANY ADDITIONAL REQUIREMENTS BY PENRITH CITY COUNCIL.

3. REFER TO ALL TYPICAL SWMP DETAILS IN BLUE BOOK (EG; SD6-3) FOR CONSTRUCTION DETAILS. ALSO REFER TO MOST RELEVENT TYPICAL DETAILS 0N DRAWING IA016600-ECC-DG-0072.

4. WIND EROSION CONTROLS (NOT SHOWN ON THIS PLAN) SHALL BE CONSTRUCTED AS REQUIRED BY THE SITE SUPERINTENDENT. REFER TO SD6-15 TYPICAL DETAIL ON DRAWING IA016600-ECC-DG-0072.

5. ESCP DETAILS ON THIS LAYOUT ARE SCHEMATIC ONLY. ANY ADDITIONAL INFORMATION REQUIRED IS TO BE OBTAINED FROM THE SITE SUPERINTENDENT. ADDITIONAL CONTROLS AND CHANGES TO THIS PLAN MAY BE NECESSARY DURING THE PROCESS OF IMPLEMENTATION OF THE ESCP. ONGOING INSPECTIONS BY A QUALIFIED SUPERINTENDENT ARE REQUIRED TO PROVIDE RELEVANT CHANGES, AS REQUIRED. THE ESCP IDENTIFIES THE EROSION AND SEDIMENT CONTROLS NEEDED ON SITE, BUT ARE NOT CONSTRUCTION DRAWINGS. REFERENCE NEEDS TO BE MADE TO TYPICAL DETAILS IN THE BLUE BOOK.

6. PROVIDE TEMPORARY, BIODEGRADABLE JUTE MESH LINING FOR ALL BASIN BATTERS.

7. IF STRAW BALES ARE USED IN CONJUNCTION AND IN ADDITION TO SEDIMENT FENCES, THE STRAW BALES SHALL BE WEED FREE.

8. ALL DISTURBED AND REGRADED AREAS INCLUDING EMBANKMENTS THAT ARE EXPOSED FOR LONGER THAN 2 WEEKS, SHALL BE REHABILITATED AS SOON AS POSSIBLE BY HYDROSEEDING OR AS DIRECTED BY THE SITE SUPERINTENDENT.

9. THIS EROSION AND SEDIMENT CONTROL PLAN IS FOR THE EAST LAKE ONLY.

NOT FOR CONSTRUCTION

SCALE 1:1000 (A1)
SCALE 1:2000 (A3)
10 0 10 20 30 40 50

REV	DATE	DRAWN	REVD	APPD	REVISION
A	24.09.15	L.B.	G.D.	J.C.	DRAFT FOR LL REVIEW

DRAWING NUMBER	REFERENCE DRAWING TITLE

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CLIENT	LEND LEASE
PROJECT	EAST LAKE, JORDAN SPRINGS

DRAWN	DRAWING CHECK	REVIEWED	APPROVED
L.B.	S.G.	J.C.	J.C.
DESIGNED	DESIGN REVIEW	DATE	DATE
G.D.	J.C.		

TITLE
EAST LAKE
EROSION AND SEDIMENT CONTROL PLAN (ESCP)

SCALE	DRAWING No	REV
1:1000	IA016600-ECC-DG-0071	A

24/09/2015 2:50:06 PM, LOGIN NAME: BARRETT.L.INDSAY
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