ARBORICULTURAL IMPACT ASSESSMENT REPORT

Green Square ICFS

Address: 3 Joynton Avenue, Zetland

Prepared for: Colliers

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PREPARED BY:
Guy Sturt
B L Arch (UNSW) AILA Registered Landscape Architect
Dip. Arboriculture AQF5 Consulting Arborist

STURT NOBLE ARBORICULTURE
Suite 91, 330 Wattle Street, ULTIMO NSW 2007
Tel. (02) 9211 3744

Sturt Noble
Arboriculture

CONTENTS

1.0 INTRODUCTION

1.1 Purpose of this Report

Sturt Noble Arboriculture was engaged by Colliers to assess existing trees, prepare an Arboricultural Impact Assessment Report in relation to the proposed demolition and construction at 3 Joynton Avenue, Zetland.

The purpose of this report is to:

- To assess and review the condition of existing trees by undertaking a Visual Tree Assessment
- Assess each individual tree's suitability to be retained as a sustainable part of the proposed development in the long term, considering the likely impacts of works proposed.
- Provide recommendations for tree removal, retention and protection.
- Provide recommendations where appropriate to enable trees to be retained or have better long term health outcomes and minimize potentials for hazard.
- To provide information on appropriate tree protection measures, appropriate setbacks, constraints and tree management procedures during site works.

This report has been carried out as per the Methodology outlined in **Appendix 1**

1.2 Background

The preparation of this report has been prepared in awareness and consideration of the following standards, controls and guidelines:

- Green Square Town Centre DCP 2012
- City of Sydney Tree Management Policy 2013
- Australian Standard AS4970-2009 *Protection of Trees on Development Sites*
- Australian Standard AS4373-2007 *Pruning of Amenity Trees*
- Australian Standard AS2303-2015 *Tree Stock for Landscape Use*

1.3 The Proposal

This impact assessment has been prepared based on the following plans:

- 17495detail, SURVEY PLAN SHOWING DETAIL & LEVELS & PROPOSED BOUNDARIES OVER LOT 2 IN D.P.1174641 No. 3 JOYNTON AVENUE ZETLAND NSW 2017, 04/05/2021 prepared by CMS Surveyors Pty Ltd
- 1935 Green Square Integrated Community Facility and School, L-100 Revision E 100% Design Development, Site Plan – Ground Floor, 24/05/2021 prepared by Turf Design Studio

Refer to plans in **Appendix 2**

The proposed works to the site include:

- Demolition of existing South Sydney Hospital Building

- Demolition of existing Community Hall
- Demolition of associated landscape works and carparks
- Construction of a new ICFS building
- Installation of surrounding hardscape works
- Nominated planting areas and softscape works
- Associated works

1.4 Foreseeable Construction Impacts

Foreseeable impacts noted from the proposed development, construction type and anticipated methodology include:

- Excavations for new ICFS building
- Excavations for surrounding hardscape works
- Excavations and trenching for underground services
- Ripping or cultivation of soil for landscaped areas
- Soil level changes including the placement of fill material for the footings and to make up grades to landscape areas.
- Laying impermeable paving to paths and slabs.
- Movement and storage of prefabricated items, plant, equipment & vehicles;
- Erection of site sheds;
- Storage of building materials, waste and waste receptacles.

2.0 PLANNING CONTROLS

2.1 Council Consent

Green Square Town Centre DCP notes that approval is required to ringbark, cut down, top, lop, prune, remove, injure or wilfully destroy a tree that:

- has a height of 5 metres or more
- has a canopy spread of over 5 metres
- has a trunk diameter of more than 300mm measured at ground level
- is listed in the Register of Significant Trees

Green Square Town Centre DCP notes that approval is not required to ringbark, cut down, top, lop, prune, remove, injure or wilfully destroy the following tree species:

- *Celtis sinensis*

Green Square Town Centre DCP also notes that recommendations for tree removal must be based on arboricultural findings only. Removals where the reason given is to permit the proposed development will not be accepted.

As a result of these planning controls, the following should be noted:

- Trees 1, 2, 20, 21 and 22 are *Celtis sinensis* so development consent will not be needed to prune or cut down these trees

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3.0 THE EXISTING SITE

3.1 The Site

The site is located at 3 Joynton Avenue, Zetland over Lot 2 in DP1174641. The site currently contains the two buildings from the original South Sydney Hospital, one that has become the Goodstart Waranara Early Education Centre, a carpark, new open space and recreational landscape facilities such as tree plantings, table tennis tables, picnic settings and a basketball half-court as well as some construction sites and site sheds. The site is defined by Joynton Avenue to the south-east and Portman Street to the north-west. High-density residential properties lie to the west while construction sites are located to the north and east and Matron Ruby Grant park to the south.

The site contains some new tree plantings to open space areas. Close to the old hospital building there are some more mature trees. Trees on site generally receive full sun exposure.

Figure 1: Location Plan

3.2 Soils

The site is located on gently undulating coastal dunefields called the Tuggerah soil landscape, similar to the extensive dune system of the Botany Lowlands. This soil type is at a high risk of wind erosion and has very low soil fertility as well as a permanently high watertable as a result of its high sand content.

Vegetation on the site was once dry sclerophyll Eucalypt and Apple woodland but has been almost completely cleared. Most of the Tuggerah soil landscape has been taken up by residential development though areas such as Botany have been developed for heavy industry and many golf courses are spotted throughout the area.

3.3 The Trees

Twenty-eight (28) trees located in close vicinity to the proposed development footprint have been surveyed as part of this assessment. The trees consist of five (5) mature native palms, ten (15) newly planted native and exotic species, five (5) self-sown weed species, two (2) senescent native trees and one (1) mature tree. Refer to **Appendix 2** for tree locations.

Each of the trees assessed has been allocated a Sustainable Retention Index Value (SRIV) that is based on their health, vigour, structure and age class. The SRIV does not take into account the impact of the proposed development.

A complete and detailed tree assessment schedule was prepared and is included in **Appendix 3**.

3.4 Special Tree Conditions

No trees within the vicinity of the site are listed on the City of Sydney Register of Significant Trees

4.0 ABORICULTURE IMPACT ASSESSMENT

4.1 Construction Assumptions

It is assumed for this report that excavation for the ICFS building will not extend greater than 500mm from the building envelope; and this limit can be considered to be the extent of disturbance to the root zones with the exception of service lines.

We note that preliminary service concept layouts have not been provided and will not be considered at this stage of the report.

Further detail of site works are required particularly details of excavation extent of services (water, telecoms and electrical), design details and levels of pavements and planter edgings, and level changes particularly within the TPZ of any trees proposed for retention. This should be provided prior to construction so any additional impacts can be assessed.

4.2 Trees to be removed

The plans show that 28 of the 28 trees will need to be removed. Trees 3 – 19 fall within the footprint of the proposed works and will need to be removed. Trees 1, 2, 20, 21 and 22 are *Celtis sinensis* and are exempt from Council approval.

Trees 24 – 28 are within the footprint of the proposed Ruby Lane passageway and should be removed. Details of the proposed passageway are not visible on the plans however the proposal has been endorsed by the Green Square Precinct Team at City of Sydney Council as a vital connection for accessibility, waste collection and emergency egress.

Table 1: Trees to be removed

Exempt species	Trees within the proposed works footprint
1, 2, 20, 21, 22	3 – 19, 24 – 28

5.0 CONCLUSION

28 trees have been considered on the site as part of this assessment and their locations are shown in **Appendix 1**. 18 of them are exotic and 10 are native trees.

Trees 1, 2, 20, 21 and 22 are *Celtis sinensis* so development consent will not be needed to remove these trees. Trees 3 – 19 fall within the footprint of the proposed works and will need to be removed. Trees 24 – 28 are within the footprint of the proposed Ruby Lane passageway and should be removed.

28 of the 28 trees on site will need to be removed on the development site.

Table 1: Trees to be removed

Exempt species	Trees within the proposed works footprint
1, 2, 20, 21, 22	3 – 19, 24 – 28

The plan in **Appendix 2** indicates the locations of the trees to be removed in relation to the proposed development.

6.0 DISCLAIMER

The author and Sturt Noble Arboricultural Consulting take no responsibility for actions taken and their consequences, contrary to those expert and professional instructions given as recommendations.

This is not a hazard assessment report and it should be noted that trees are always inherently dangerous. This assessment was carried out from the ground, and covers what was reasonably able to be assessed and available to the assessor at the time of inspection. No aerial or subterranean inspections were carried out and structural weakness may exist within roots, trunk or branches.

Any protection or preservation methods recommended are not a guarantee of tree survival or safety but are designed to improve vigour and reduce risk. Timely inspections and reports are necessary to monitor the trees' condition. No responsibility is accepted for damage or injury caused by the trees and no responsibility is accepted if the recommendations in this report are not followed.

Limitations on the use of this report: Trees are dynamic living structures, growing and adapting to conditions around them. Tree condition will change and vary over time depending on weather, environmental factors and mechanical or human interaction.

This report is to be utilised in its entirety only. Any written or verbal submission, report or presentation that includes statements taken from the findings, discussions, conclusions or recommendations made in this report, may only be used where the whole of the original report (or a copy) is referenced in, and directly attached to that submission, report or presentation.

Assumptions: Care has been taken to obtain information from reliable resources. All data have been verified insofar as possible; however, Sturt Noble Arboricultural Consulting can neither guarantee nor be responsible for the accuracy of information provided by others.

Unless stated otherwise: Information contained in this report covers only the trees that were examined and reflects the condition of the trees at the time of inspection.

Assessment is limited to the conditions at the time of the inspection and only trees discussed in the report have been assessed.

Where access to the base of the tree is limited, such as difficult site access due to site conditions, only general comments can be made. Assessment of tree health and structure is limited to that visible from the site of proposed works and may not reflect the true condition of the tree. Assessment of tree health and structure is limited to that visible from the site of proposed works and may not reflect the true condition of the tree.

Plans used to assess likely impact are those appended/ referenced.

Ongoing monitoring of all trees is advised and where significant changes are observed, further advice should be requested. Unusual developments or sudden changes in a tree's condition should be addressed immediately.

7.0 REFERENCES

Chapman, G. A & Murphy, C. L, 1989 Soil landscapes of the Sydney 1:100,000 sheet (9130) Pub. NSW Govt.

Draper, D.B and Richards, P.A (2009) Dictionary for managing Trees in Urban Environments, (IACA) Institute of Australian Consulting Arboriculturists ©. Pub. CSIRO Publishing, Melbourne.

IACA, 2010, Sustainable Retention Index Value Matrix (SRIV) Version 4, A visual method of objectively rating the viability of urban trees for development sites and management, based on general tree and landscape assessment criteria, Institute of Australian Consulting Arborculturists, Australia, www.iaca.org.au.

Googlemaps © Google 2021

Soil landscapes from espade.environment.nsw.gov.au © State of NSW and Department of Planning, Industry and Environment 2021

Standards Australia (2007) Australian Standard AS4373-2007 *Pruning of Amenity Trees,* Pub. Standards Australia, Sydney.

Standards Australia (2009) Australian Standard AS4970-2009 *Protection of Trees on Development Sites*, Pub. Standards Australia, Sydney.

APPENDIX 1: METHODOLOGY

A1.1 Site Inspection

This report, its comments and recommendations have been prepared based on the information gathered during a detailed site inspection carried out on the on the 7th April 2021. This assessment is summarised in **Appendix 1**.

A1.2 Tree Locations

The location of the subject trees are based on the site survey, 17495detail, 04/05/2021 prepared by CMS Surveyors Pty Ltd.

A1.3 Visual Tree Assessment

The trees were assessed from the ground by the Visual Tree Assessment (VTA) method as described in Mattheck & Breloer (1994), using non-invasive tools such as binoculars and acoustic mallet. No digging or exposing of the root zones occurred in this inspection and no aerial inspection by climbing was performed. No aerial inspection or diagnostic testing was undertaken as part of this assessment.

The following data was collected for each tree:

- Botanical and common name.
- Tree dimensions (approximate only).
- Canopy density (approximate only).
- Overall health and vitality, including epicormic growth, deadwood and predation by pests and diseases.
- Structural condition including evident faults such as Bark Inclusions or poor branch attachments, decay, cavities and mechanical or biological damage.
- Stability of the tree including excessive trunk lean, stability of the soil, soil cracking, soil heaving, exposed roots and root damage.

A1.4 Retention Value

Each tree has been given a Sustainable Retention Index Value (SRIV) according to the rating system set out in the Sustainable Retention Index Value Matrix (refer to the table in section A1.8). The SRIV for each tree is based on its health, vigour, structure and age class as established in the Visual Tree Assessment. The SRIV does not take into account the impact of the proposed development.

A1.5 Landscape Significance Assessment

Landscape Significance is an essential criterion to establish the importance that a particular tree may have on a site. Each tree has been given a Tree Significance in landscape rating based on the 'IACA Significance of a Tree, Assessment Rating System'. A tree is to have a minimum of three criteria in a category to be applicable for that rating.

Tree Significance in the landscape ratings:

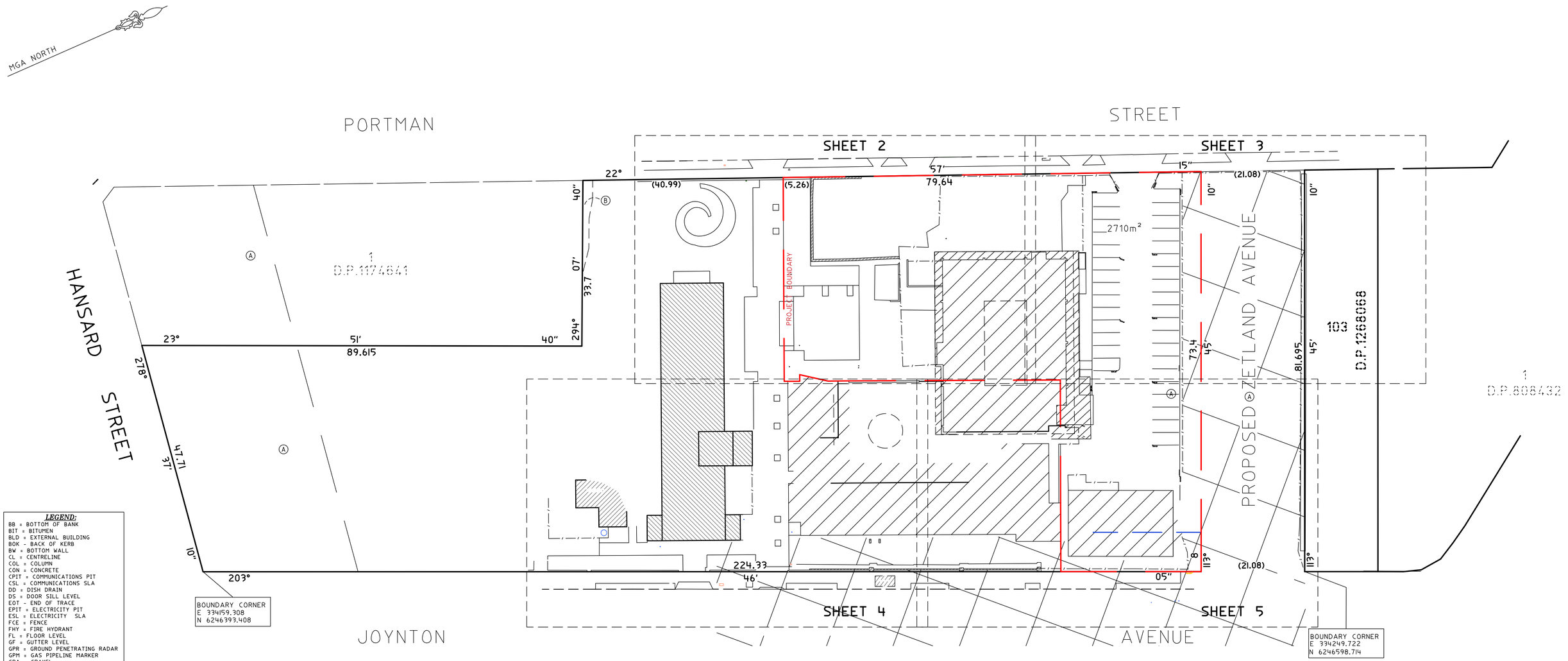
High	**Medium**	**Low**
▪ The tree is in good condition and good vigour; ▪ The tree has a form typical for the species; ▪ The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age; ▪ The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register; ▪ The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity; ▪ The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values; ▪ The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa in situ - tree is appropriate to the site conditions.	▪ The tree is in fair-good condition and good or low vigour; ▪ The tree has form typical or atypical of the species; ▪ The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area ▪ The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street, ▪ The tree provides a fair contribution to the visual character and amenity of the local area, ▪ The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa in situ.	▪ The tree is in fair-poor condition and good or low vigour; ▪ The tree has form atypical of the species; ▪ The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings, ▪ The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area, ▪ The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen, ▪ The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa in situ - tree is inappropriate to the site conditions, ▪ The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms, ▪ The tree has a wound or defect that has potential to become structurally unsound. ▪ Environmental Pest / Noxious Weed Species ▪ The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties, ▪ The tree is a declared noxious weed by legislation. ▪ Hazardous/Irreversible Decline ▪ The tree is structurally unsound and/or unstable and is considered potentially dangerous, - The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.

A1.6 SRIV Table

	Vigour Class and Condition Class					
Age Class	Good Vigour & Good Condition (GVG)	Good Vigour & Fair Condition (GVF)	Good Vigour & Poor Condition (GVP)	Low Vigour & Good Condition (LVG)	Low Vigour & Fair Condition (LVF)	Low Vigour & Poor Condition (LVP)
	Able to be retained if sufficient space available above and below ground for future growth. No remedial work or improvement to growing environment required. May be subject to high vigour. Retention potential - Medium - Long Term.	Able to be retained if sufficient space available above and below ground for future growth. Remedial work may be required or improvement to growing environment may assist. Retention potential - Medium Term. Potential for longer with remediation or favourable environmental conditions	Able to be retained if sufficient space available above and below ground for future growth. Remedial work unlikely to assist condition, improvement to growing environment may assist. Retention potential - Short Term. Potential for longer with remediation or favourable environmental conditions.	May be able to be retained if sufficient space available above and below ground for future growth. No remedial work required, but improvement to growing environment may assist vigour. Retention potential - Short Term. Potential for longer with remediation or favourable environmental conditions.	May be able to be retained if sufficient space available above and below ground for future growth. Remedial work or improvement to growing environment may assist condition and vigour. Retention potential - Short Term. Potential for longer with remediation or favourable environmental conditions.	Unlikely to be able to be retained if sufficient space available above and below ground for future growth. Remedial work or improvement to growing environment unlikely to assist condition or vigour. Retention potential - Likely to be removed immediately or retained for Short Term. Potential for longer with remediation or favourable environmental conditions
Young (Y)	**YGVG - 9** Index Value 9 Retention potential - Long Term. Likely to provide minimal contribution to local amenity if height Retain, move or replace	**YGVF - 8** Index Value 8 Retention potential - Short - Medium Term. Potential for longer with improved growing conditions. Likely to provide minimal contribution to local amenity if height Medium-high potential for future growth and adaptability. Retain, move or replace.	**YGVP - 5** Index Value 5 Retention potential - Short Term. Potential for longer with improved growing conditions. Likely to provide minimal contribution to local amenity if height Low-medium potential for future growth and adaptability. Retain, move or replace	**YLVG - 4** Index Value 4 Retention potential - Short Term. Potential for longer with improved growing conditions. Likely to provide minimal contribution to local amenity if height Medium potential for future growth and adaptability. Retain, move or replace	**YLVF - 3** Index Value 3 Retention potential - Short Term. Potential for longer with improved growing conditions. Likely to provide minimal contribution to local amenity if height <5m. Low-medium potential for future growth and adaptability. Retain, move or replace	**YLVP - 1** Index Value 1 Retention potential - Likely to be removed immediately or retained for Short Term. Likely to provide minimal contribution to local amenity if height
Mature (M)	**MGVG - 10** Index Value 10 Retention potential - Medium - Long Term	**MGVF - 9** Index Value 9 Retention potential - Medium Term. Potential for longer with improved growing conditions.	**MGVP - 6** Index Value 6 Retention potential - Short Term. Potential for longer with improved growing conditions	**MLVG - 5** Index Value 5 Retention potential - Short Term. Potential for longer with improved growing conditions	**MLVF - 4** Index Value 4 Retention potential - Short Term. Potential for longer with improved growing conditions	**MLVP - 2** Index Value 2 Retention potential - Likely to be removed immediately or retained for Short Term.
Over-mature (O)	**OGVG - 6** Index Value 6 Retention potential - Medium - Long Term.	**OGVF - 5** Index Value 5 Retention potential - Medium Term.	**OGVP - 4** Index Value 4 Retention potential - Short Term.	**OLVG - 3** Index Value 3 Retention potential - Short Term. Potential for longer with improved growing conditions.	**OLVF - 2** Index Value 2 Retention potential - Short Term.	**OLVP - 0** Index Value 0 Retention potential - Likely to be removed immediately or retained for Short Term

APPENDIX 2: PLANS

A1



LEGEND:

BB = BOTTOM OF BANK
BIT = BITUMEN
BLD = EXTERNAL BUILDING
BOK = BACK OF KERB
BW = BOTTOM WALL
CL = CENTRELINE
COL = COLUMN
CON = CONCRETE
CPIT = COMMUNICATIONS PIT
CSL = COMMUNICATIONS SLA
DD = DISH DRAIN
DS = DOOR SILL LEVEL
EOT = END OF TRACE
EPIT = ELECTRICITY PIT
ESL = ELECTRICITY SLA
FCE = FENCE
FHY = FIRE HYDRANT
FL = FLOOR LEVEL
GF = GUTTER LEVEL
GPR = GROUND PENETRATING RADAR
GPM = GAS PIPELINE MARKER
GRA = GRAVEL
GRT = GRATE
GSL = GAS SLA
GVA = GAS VALVE
IL = INVERT LEVEL
LAN = LANDING
LID = MISCELLANEOUS PIT LID
LIN = LINTEL
LP = LIGHT POLE
MH = MANHOLE
MW = MONITORING WELL
NS = NATURAL SURFACE
PAV = PAVING
PIT = TOP OF PIT
RF = TOP OF ROOF
RMP = RAMP
RR = ROOF RIDGE
RTA = RTA/RMS PIT
SIP = SEWER INSPECTION PIT
SMH = SEWER MAN HOLE
SLA = SURFACE LEVEL ABOVE
STR = STAIRS
SVA = STOP VALVE
SWSL = STORMWATER SLA
TAP = TAP
TB = TOP OF BANK
TG = TOP OF GUTTER
TKB = TOP OF KERB
TLE = TREE LINE
TLI = TRAFFIC LIGHT
TPIL = TELSTRA PILLAR
TPIT = TELSTRA PIT
TR = TREE
TSL = TELSTRA SLA
TSP = TRAFFIC SIGNALS PIT
TW = TOP OF WALL
UNS = UNDERSIDE LEVEL
UTO = UNABLE TO OPEN
UTL = UNABLE TO LOCATE
USL = UNKNOWN SERVICE SLA
VC = VEHICLE CROSSING
VNT = SEWER VENT
WSL = WATER SLA
E0 = ELECTRICITY OVERHEAD
S = SEWER UNDERGROUND
TREE
SPREAD-DIAMETER-HEIGHT

Notes:

- **BOUNDARIES HAVE BEEN DEFINED.**
- **IF CONSTRUCTION ON OR NEAR BOUNDARIES IS REQUIRED IT IS RECOMMENDED THAT THE BOUNDARIES OF THE LAND BE MARKED.**
- **THIS DETAIL SURVEY IS NOT A "SURVEY" AS DEFINED BY THE SURVEYING AND SPATIAL INFORMATION ACT, 2002.**
- **AREA IS APPROXIMATE ONLY AND HAS BEEN CALCULATED BY TITLE DIMENSIONS. ALL TITLE DIMENSIONS OF THE LAND HAVE NOT BEEN CONFIRMED BY SURVEY. IF AREAS ARE CRITICAL WE RECOMMEND A BOUNDARY SURVEY FOR PUBLIC RECORD.**
- TREE SIZES ARE ESTIMATES ONLY.
- THIS PLAN HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF NSW DEPARTMENT OF EDUCATION
- RELATIONSHIP OF IMPROVEMENTS TO BOUNDARIES IS DIAGRAMMATIC ONLY. WHERE OFFSETS ARE CRITICAL THEY SHOULD BE CONFIRMED BY FURTHER SURVEY.
- EXCEPT WHERE SHOWN BY DIMENSION LOCATION OF DETAIL WITH RESPECT TO BOUNDARIES IS INDICATIVE ONLY.
- ONLY VISIBLE SERVICES HAVE BEEN LOCATED. UNDERGROUND SERVICES HAVE NOT BEEN LOCATED. BEFORE YOU DIG SERVICES (ph 1100) SHOULD BE USED AND A FULL UTILITY INVESTIGATION, INCLUDING A UTILITY LOCATION SURVEY, SHOULD BE UNDERTAKEN BEFORE CARRYING OUT ANY CONSTRUCTION ACTIVITY IN OR NEAR THE SURVEYED AREA.
- SEWER MAIN PLOTTED FROM SYDNEY WATER SEWER DIAGRAM. LOCATION SHOULD BE MARKED ON SITE IF CRITICAL.
- CRITICAL SPOT LEVELS SHOULD BE CONFIRMED WITH SURVEYOR.
- THIS PLAN IS ONLY TO BE USED FOR THE PURPOSE OF DESIGNING NEW CONSTRUCTIONS.
- CONTOURS SHOWN DEPICT THE TOPOGRAPHY. THEY DO NOT REPRESENT THE EXACT LEVEL AT ANY PARTICULAR POINT. ONLY SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION.
- CONTOUR INTERVAL - 0.5 metre. - SPOT LEVELS SHOULD BE ADOPTED.
- POSITION OF RIDGE LINES ARE DIAGRAMMATIC ONLY (NOT TO SCALE).
- THE INFORMATION IS ONLY TO BE USED AT A SCALE ACCURACY OF 1:100.
- DO NOT SCALE OFF THIS PLAN / FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED READINGS.
- COPYRIGHT © CMS SURVEYORS 2020.
- NO PART OF THIS SURVEY MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM OR TRANSMITTED IN ANY FORM, WITHOUT THE WRITTEN PERMISSION OF THE COPYRIGHT OWNER EXCEPT AS PERMITTED BY THE COPYRIGHT ACT 1968.
- ANY PERMITTED DOWNLOADING, ELECTRONIC STORAGE, DISPLAY, PRINT, COPY OR REPRODUCTION OF THIS SURVEY SHOULD CONTAIN NO ALTERATION OR ADDITION TO THE ORIGINAL SURVEY.
- THIS NOTICE MUST NOT BE ERASED.

PROPOSED STRATUM & PROJECT BOUNDARIES AS PER PROPOSED SUBDIVISION OF LOT 2 IN DP1174641 BY CITY OF SYDNEY
DRAWING NO.S6-14-285 REV.C DATE: 29/11/17
PROPOSED STRATUM BOUNDARY
PROJECT BOUNDARY

TITLE INDICATES THAT LOT 2 IN D.P.1174641 IS SUBJECT TO:

- RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
(A) LAND EXCLUDES MINERALS (S.141 PUBLIC WORKS ACT, 1912) WITHIN THE PART(S) SHOWN SO INDICATED IN THE TITLE DIAGRAM
(B) DP1217783 EASEMENT FOR FIRE SEPARATION VARIABLE WIDTH AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1217783
- AM927647 POSITIVE COVENANT (NOT INVESTIGATED)

0 10 20 30 40
SCALE 1:400

NOTE

- UNDERGROUND SERVICES HAVE NOT BEEN RE-INVESTIGATED AS PART OF THIS SURVEY. ALL SERVICES LINEWORK HAS BEEN EXTRACTED FROM SURVEY PLAN DATED: 05/02/18.
- DEPTH OF UNDERGROUND SERVICES HAVE NOT BEEN SHOWN ON THIS PLAN DUE TO CHANGES IN SURFACE ELEVATION THAT MAY HAVE OCCURRED SINCE PREVIOUS SERVICES INVESTIGATION.
- WARNING: SERVICES MAY EXIST THAT HAVE NOT BEEN IDENTIFIED AS PART OF THIS SURVEY.

LEGEND: (SEE NOTES)

C = COMMUNICATIONS UNDERGROUND
EU = ELECTRICITY UNDERGROUND
G = GAS UNDERGROUND
S = SEWER UNDERGROUND
SW = STORMWATER UNDERGROUND
T = TELSTRA UNDERGROUND
U = UNKNOWN UNDERGROUND
W = WATER UNDERGROUND

NOTES

- THE PURPOSE OF THIS PLAN IS FOR DESIGN ONLY. CURRENT PLANS ISSUED BY SERVICE PROVIDERS THROUGH "DIAL BEFORE YOU DIG" ARE STILL REQUIRED. CONTRACTORS AND SUBCONTRACTORS WILL NEED TO EXERCISE THEIR OWN "DUTY OF CARE" AND SHOULD MAKE THEIR OWN DIAL BEFORE YOU DIG ENQUIRY BEFORE EXCAVATION/CONSTRUCTION. YOU MUST ENSURE "DIAL BEFORE YOU DIG" ARE CURRENT AS THEY HAVE VARYING EXPIRATION DATES, AND MAY REQUIRE RE-ISSUE OTHERWISE THE INFORMATION ON THIS PLAN MAY NO LONGER BE CURRENT.
- WARNING: UNKNOWN SERVICES MAY EXIST THAT COULD NOT BE ELECTRONICALLY DETECTED. THE DIAGRAMS OF THE SERVICE PROVIDER MAY NOT DEPICT ALL ASSETS WITHIN THEIR NETWORK AND SERVICE PROVIDERS MAY SHARE CONDUITS AND /OR TRENCHES AT THIS LOCATION.
- WARNING: SINGLE MARKED LINES MAY REPRESENT MULTIPLE CONDUITS, PIPES END/OR CABLES AT THIS LOCATION. THE RECORDING OF DEPTHS AND POSITION OF UTILITIES CANNOT BE GUARANTEED AS CORRECT. WE RECOMMEND NON DESTRUCTIVE DIGGING/POTHOLING TO EXPOSE SERVICES FOR ACCURATE IDENTIFICATION AND DEPTH.

CAUTION: DURKIN HAVE SURVEYED AND MARKED OUT EXISTING SERVICES IN THE AREA SPECIFIED BY THE CLIENT. THESE SERVICE LINES HAVE BEEN LOCATED BY ABOVE GROUND SERVICE TRACING METHODS AND HAVE NOT BEEN SIGHTED. CMS SURVEYORS HAVE THEN LOCATED THE LINE MARKED BY DURKIN. THE LOCATION OF THESE MARKED SERVICES ARE APPROXIMATE ONLY. THE POSITION OF THE MARKED SERVICE LINES HAS BEEN MADE WITH REFERENCE TO THE RELEVANT SERVICE AUTHORITY DIAGRAMS. ALL SERVICES MAY NOT HAVE BEEN SHOWN AND UTILITY DESCRIPTIONS HAVE BEEN TAKEN FROM UTILITY PROVIDED DIAGRAMS WHERE AVAILABLE. WE RECOMMEND NON DESTRUCTIVE DIGGING/POTHOLING TO EXPOSE MARKED SERVICES TO IDENTIFY AND SHOW EXACT DEPTH AND LOCATION OF SERVICE LINES PRIOR TO EARTHWORKS COMMENCING. UTILITIES PLOTTED ON THE PLAN THAT TERMINATE IN THE SPECIFIED AREA MAY GO TO FEATURES THAT HAVE NOT BEEN SHOWN ON THE BACKGROUND DETAIL SURVEY PROVIDED BY CLIENT. THE RISK REMAINS WITH THE CLIENT AND/OR SUB CONTRACTOR AND THEIR RESPONSIBILITY TO EXERCISE CAUTION AT ALL TIMES.

6	DETAIL ADDED	4/05/21
5	TRIANGLE LAYER TO PROPOSED BDY UPDATED IN DWG	26/06/20
4	TRIANGLE LAYER UPDATED IN DWG	25/06/20
3	PROPOSED BOUNDARY UPDATE AS PER CITY OF SYDNEY REQUEST	11/11/19
2	PROPOSED BOUNDARY ADJUSTED TO REMOVE ENCROACHMENTS	20/06/19

HORIZONTAL DATUM:
CO-ORDINATE SYSTEM: MGA
MARKS ADOPTED: PM 59536 & PM 59537
LGA: SYDNEY

VERTICAL DATUM:
DATUM: AUSTRALIAN HEIGHT DATUM (AHD)
B.M. ADOPTED: PM 59536
R.L. 19.136 (ORDER L3)
SOURCE: S.C.I.M.S. (30/01/18)

CLIENT:
NSW DEPARTMENT OF EDUCATION
c/- COLLIERS
30 GROSVENER PLACE,
225 GEORGE STREET
SYDNEY NSW 2000

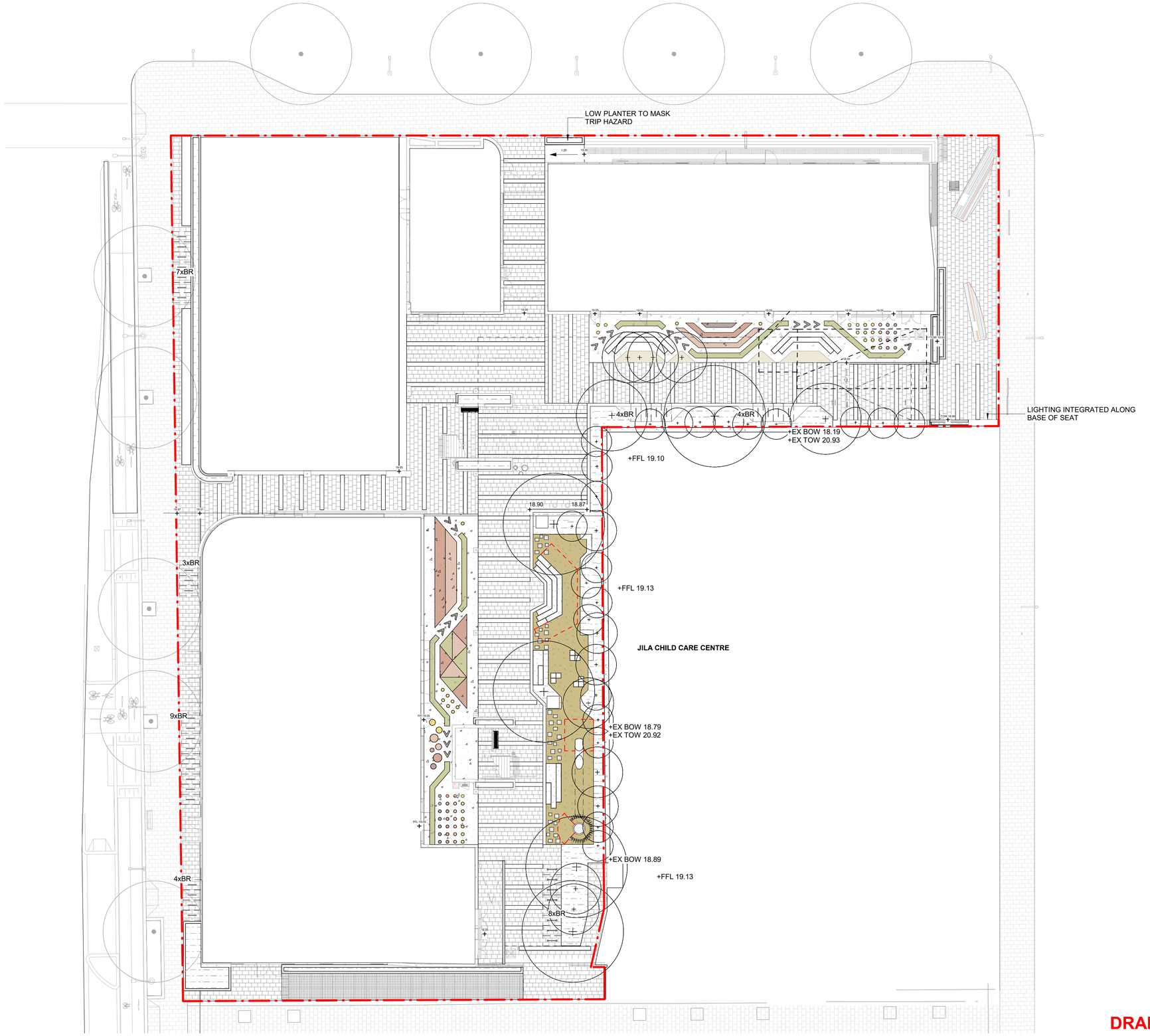
SURVEY PLAN
SHOWING DETAIL & LEVELS & PROPOSED BOUNDARIES
OVER LOT 2 IN D.P.1174641
No. 3 JOYNTON AVENUE
ZETLAND NSW 2017

CMS SURVEYORS
C.M.S. Surveyors Pty Limited
ACN: 096 240 201
PO Box 463 Dee Why NSW 2099
1/32 Campbell Avenue, Dee Why NSW 2099
Telephone: (02) 9971 4802 Facsimile: (02) 9971 4822
E-mail: info@cmssurveyors.com.au

SURVEYED	DRAWN	CHECKED	APPROVED
ME/HC	CJR	M.E.	A.F/P.B

SURVEY INSTRUCTION	SCALE	DATE OF SURVEY
17495B	1:100 @ A1	15/05/19, 29/04/21

DRAWING NAME: **17495detail** SHEET: 1 OF 5 ISSUE: 6
CAD FILE: 17495Bdetail 1 Proposed BDY Rev6.dwg



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Rev	Date	Description	Drawn	Checked

Author

turf

Turf Design Studio: 35 Wellington St, Chippendale NSW 2008
Phone (+61 2) 8394 99907
Email: sydney@turfdesign.com

Client

School Infrastructure NSW

Project

Green Square Integrated Community Facility and School

Drawing Title

SITE PLAN

Drawing Status

UNCONTROLLED ISSUE

N

0 2 4 6 8 10

SCALE - 1:200 @ A1 , 1:400 @ A3

Scale. 1 : 200 @A1

Plot Date 3/06/2021 3:29:12 PM

Project No. 1935

Drawing No. xL-613

Revision

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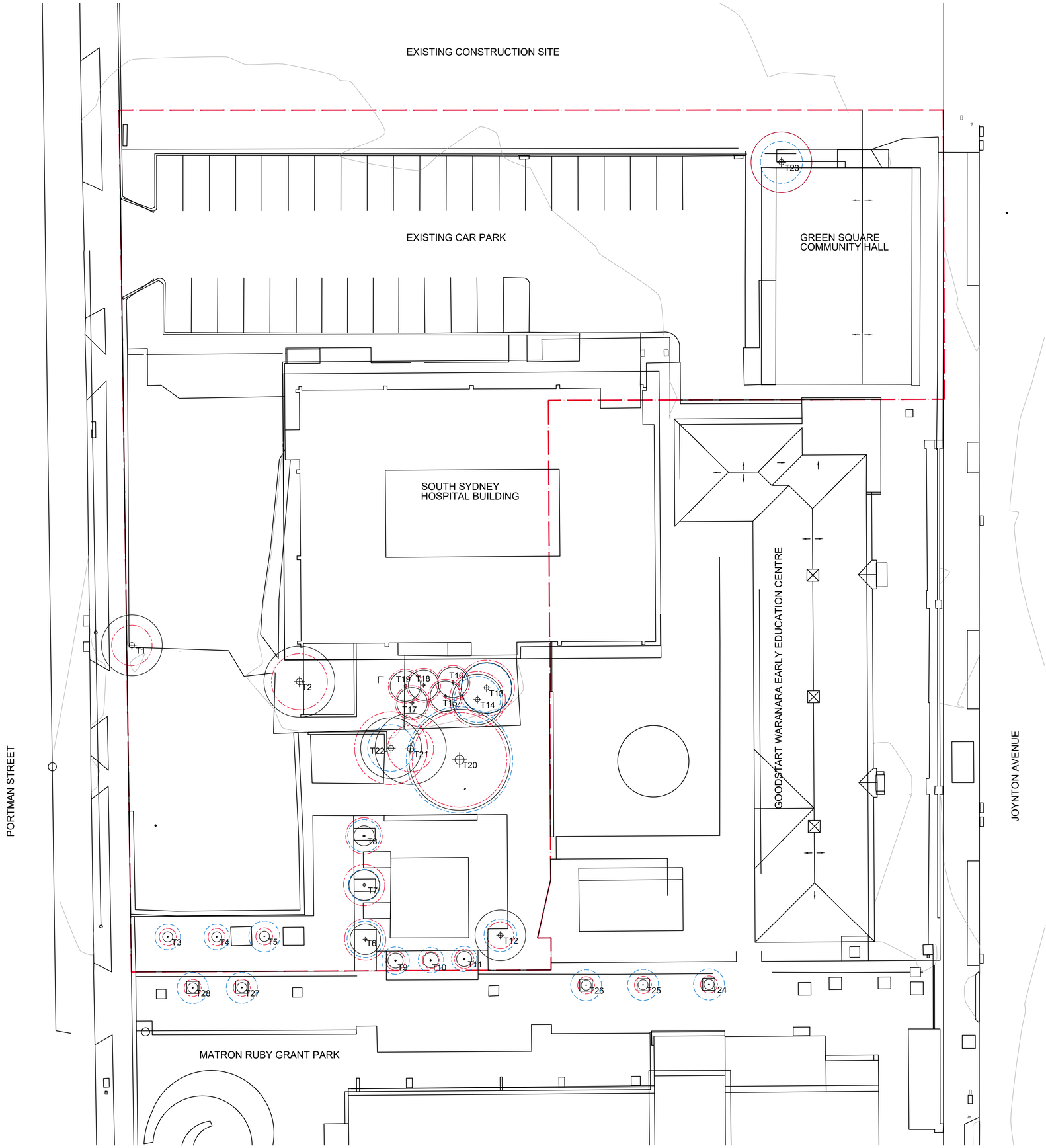

LEGEND

- PROPERTY BOUNDARY
- EXISTING TREE (TX) — Refer to Tree Impact Assessment Schedule
- TREE PROTECTION ZONE
- STRUCTURAL ROOT ZONE

ISSUE	DESCRIPTION	DATE
A	ARBORICULTURAL IMPACT ASSESSMENT REPORT	26.05.2021

Sturt Noble Arboriculture
Suite 91, L5, 330 Wattle St
Ultimo NSW 2007
T. 02 9211 3744
W. www.sturtnoble.com.au
landscape architecture
environmental & urban design

PROJECT
GREEN SQUARE ICFS

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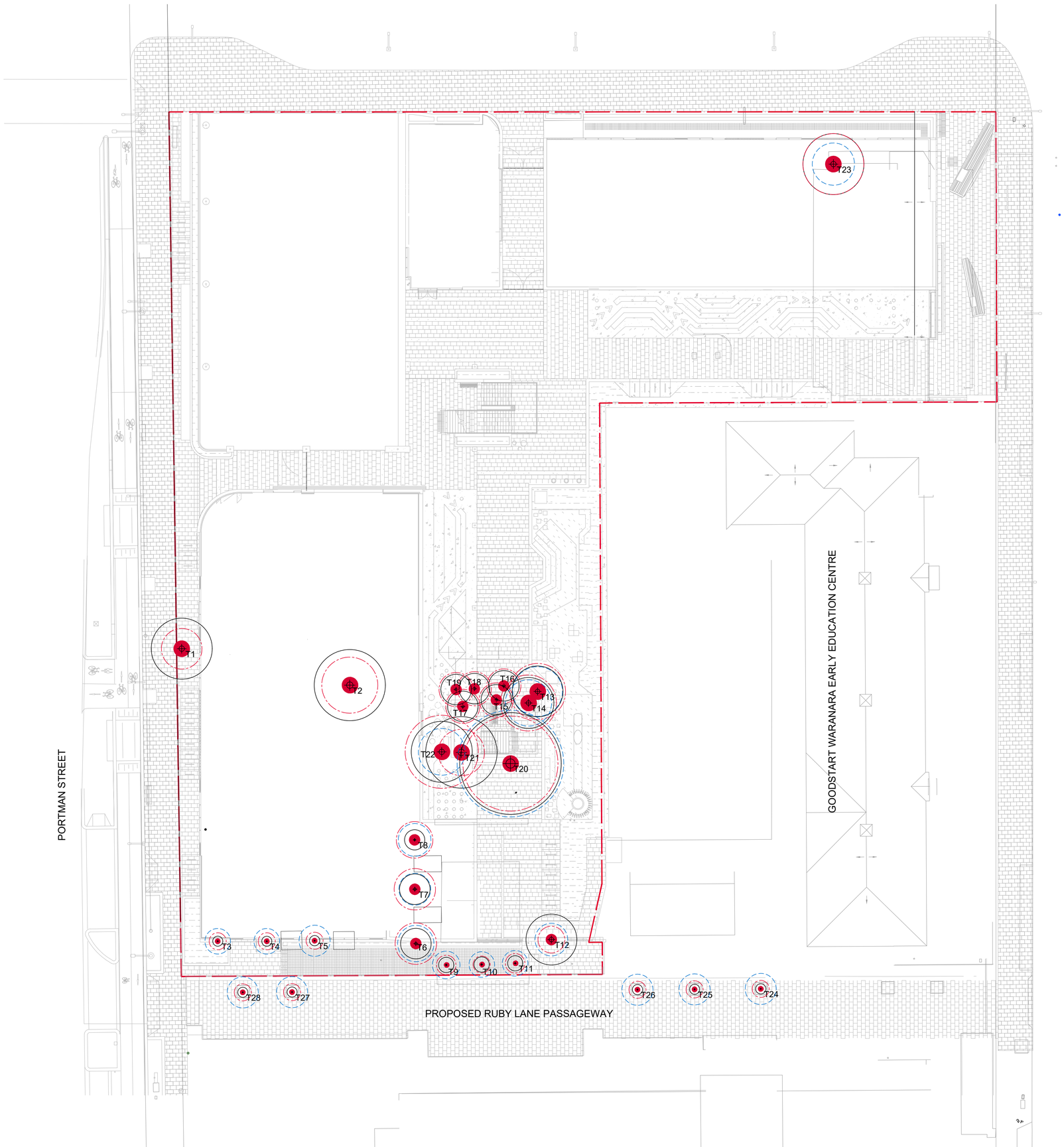
DRAWING
EXISTING SITE PLAN

DRAWING NUMBER: ARB-2114-001
ISSUE: A
SCALE: 1:200 @ A1, 1:400 @ A3
DRAWN: jc
CHECKED: gs
DIRECTOR: gs

0 2 4 10 m

ACN: 164 245 514 ABN: 99 164 245 514



DEVELOPMENT ENCROACHMENT ANALYSIS			
TREE NO.	TPZ RADIUS (m)	TPZ AREA (m²)	TPZ ENCROACHMENT (%)
T1	2.00	12.56	<50%
T2	2.76	23.92	<50%
T3	0.84	2.22	<50%
T4	0.84	2.22	<50%
T5	0.84	2.22	<50%
T6	2.04	13.07	<50%
T7	2.04	13.07	<50%
T8	1.80	10.17	<50%
T9	0.96	2.89	<50%
T10	0.84	2.22	<50%
T11	0.96	2.89	<50%
T12	1.32	5.47	<50%
T13	2.76	23.92	<50%
T14	2.76	23.92	<50%
T15	1.68	8.86	<50%
T16	1.68	8.86	<50%
T17	1.68	8.86	<50%
T18	1.68	8.86	<50%
T19	1.44	6.51	<50%
T20	4.68	68.77	<50%
T21	2.28	16.32	<50%
T22	3.60	40.69	<50%
T23	3.00	28.26	<50%
T24	0.84	2.22	<50%
T25	0.84	2.22	<50%
T26	0.84	2.22	<50%
T27	0.84	2.22	<50%
T28	0.84	2.22	<50%

LEGEND

- PROPERTY BOUNDARY
- EXISTING TREE (TX) — Refer to Tree Impact Assessment Schedule
- TREES TO BE RETAINED — Refer to Tree Impact Assessment Schedule
- TREES TO BE REMOVED — Refer to Tree Impact Assessment Schedule
- TREE PROTECTION ZONE
- STRUCTURAL ROOT ZONE

ISSUE	DESCRIPTION	DATE
B	REVISED ISSUE FOR SINSW	03.06.2021
A	ARBORICULTURAL IMPACT ASSESSMENT REPORT	26.05.2021

Sturt Noble Arboriculture
Suite 91, L5, 330 Wattle St
Ultimo NSW 2007
T. 02 9211 3744
W. www.sturtnoble.com.au
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PROJECT
GREEN SQUARE ICFS

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DRAWING
TREE REMOVAL AND RETENTION PLAN

DRAWING NUMBER: ARB-2114-002
ISSUE: B
SCALE: 1:200 @ A1, 1:400 @ A3
DRAWN: jc
CHECKED: gs
DIRECTOR: gs

0 2 4 10 m

ACN: 164 245 514 ABN: 99 164 245 514

APPENDIX 3: TREE ASSESSMENT SCHEDULE

Tree Assessment Sheet

Location:	GREEN SQUARE ICFS
Client:	COLLIERS
Date:	07.04.2021

Tree No.	Botanical Name / **Common Name**	Dimensions							Health				Vigour				Structure					Age Class					**Retention Value SRIV**	**Landscape Significance**	Comments
		TPZ radius (m)	**SRZ** radius (m)	DBH (mm)	DAB (mm)	Height (m)	Spread EW (m)	Spread NS (m)	Deadwood	Dieback	Pests	Diseases	Canopy density %	Foliage size	Foliage colour	Extension growth	Inclusions	Fractures	Wounds	Cavities	Decay	Senescent	Mature	Semi Mature	Young	New planting			
1	*Celtis sinensis* **Chinese Nettle Tree**	2.00	0.00	100/50/35/60	0	6	7	9	●	●	●	●	90	G	G	Y	●	●	●	●	●				●		**YGVG-9**	**L**	Self-sown. Multi-trunk. Exempt species. Remove
2	*Celtis sinensis* **Chinese Nettle Tree**	2.76	0.00	190/230/200/110	0		11	10	●	●			80	G	G	Y	●	●	●	●	●				●		**MGVF-9**	**L**	Multi-trunk. Self-sown. Inclusion at base. Exempt species. Remove
3	*Zelkova serrata* **Japanese Zelkova**	0.84	1.26	70	100	7	3	3					90	G	G	Y									●		**YGVG-9**	**L**	Remove
4	*Zelkova serrata* **Japanese Zelkova**	0.84	1.26	70	100	7	3	3	●	●	●	●	90	G											●		**YGVG-9**	**L**	Remove
5	*Zelkova serrata* **Japanese Zelkova**	0.84	1.53	70	160	7	3	3	●	●	●	●	90	G											●		**YGVG-9**	**L**	Remove
6	*Melaleuca quinquenervia* **Broad-leaved Paperbark**	2.04	1.79	170	230	9	4	4																	●		**YGVG-9**	**M**	Remove
7	*Melaleuca quinquenervia* **Broad-leaved Paperbark**	2.04	1.57	170	170	7	4	4																	●		**YGVG-9**	**M**	Remove
8	*Melaleuca quinquenervia* **Broad-leaved Paperbark**	1.80	1.61	150	180	8	4	4																	●		**YGVG-9**	**M**	Remove
9	*Zelkova serrata* **Japanese Zelkova**	0.96	1.36	80	120	7	3	3																	●		**YGVG-9**	**L**	Remove
10	*Zelkova serrata* **Japanese Zelkova**	0.84	1.26	70	100	7	3	3																	●		**YGVG-9**	**L**	Remove
11	*Zelkova serrata* **Japanese Zelkova**	0.96	1.26	80	100	7	3	3																	●		**YGVG-9**	**L**	Remove
12	*Jacaranda mimosifolia* **Jacaranda**	1.32	1.61	110	180	8	5	5														●					**YGVG-9**	**M**	Leans to East. Remove
13	*Murraya paniculata* **Orange Jasmine**	2.76	2.45	80/60/100/100/60/80/80/100	490	8	6	6	●	●	●	●	80	G	G	Y	●	●	●	Small		●					**OGVF-5**	**M**	Senescent, multi-trunk, root girdling. Remove
14	*Murraya paniculata* **Orange Jasmine**	2.76	2.28	60/60/70/20/90/100/150	410	8	6	6	●	●	●	●	80	G	G	Y	●	●	●				●				**OGVF-5**	**M**	Senescent, multi-trunk, root girdling. Remove
15	*Howea forsteriana* **Kentia Palm**	1.68	0.00	140		8	6	6					80	G	G	Y							●				**MGVG-10**	**M**	Remove
16	*Howea forsteriana* **Kentia Palm**	1.68	0.00	140		8	6	6					80	G	G	Y							●				**MGVG-10**	**M**	Remove
17	*Howea forsteriana* **Kentia Palm**	1.68	0.00	140		8	6	6					80	G	G	Y							●				**MGVG-10**	**M**	Remove
18	*Howea forsteriana* **Kentia Palm**	1.68	0.00	140		8	6	6					80	G	G	Y							●				**MGVG-10**	**M**	Remove

Tree Assessment Sheet

Location:	GREEN SQUARE ICFS
Client:	COLLIERS
Date:	07.04.2021

Tree No.	Botanical Name / **Common Name**	Dimensions							Health				Vigour				Structure					Age Class					**Retention Value SRIV**	**Landscape Significance**	Comments
		TPZ radius (m)	**SRZ** radius (m)	DBH (mm)	DAB (mm)	Height (m)	Spread EW (m)	Spread NS (m)	Deadwood	Dieback	Pests	Diseases	Canopy density %	Foliage size	Foliage colour	Extension growth	Inclusions	Fractures	Wounds	Cavities	Decay	Senescent	Mature	Semi Mature	Young	New planting			
19	*Howea forsteriana* **Kentia Palm**	1.44	0.00	120		4	4	4					80	G	G	Y							●				**MGVG-10**	**M**	Remove
20	*Celtis sinensis* **Chinese Nettle Tree**	4.68	5.25	170/150/75/180/150/150/150/150	3000	11	9	8																			**MGVP-6**	**L**	Self-sown. Multi-trunk. Exempt species. Remove
21	*Celtis sinensis* **Chinese Nettle Tree**	2.28	0.00	140/120/50		9	8	9			●									●							**MGVP-6**	**L**	Poor form. Suppressed. Coppiced. Exempt species. Remove
22	*Celtis sinensis* **Chinese Nettle Tree**	3.60	2.30	250/150/50/50	420	10	7	8																			**MGVP-6**	**L**	Poor form. Suppressed. Coppiced. Exempt species. Remove
23	*Melia azedarach* **White Cedar**	3.00	2.08	250	330	8	8	8	●	●	●	●	50	OK	G	G	●	●	●	●	●		●				**MLVG-5**	**M**	Remove
24	*Zelkova serrata* **Japanese Zelkova**	0.84	1.26	70	100	7	3	3					90	G	G	Y									●		**YGVG-9**	**L**	Remove
25	*Zelkova serrata* **Japanese Zelkova**	0.84	1.26	70	100	7	3	3					90	G	G	Y									●		**YGVG-9**	**L**	Remove
26	*Zelkova serrata* **Japanese Zelkova**	0.84	1.26	70	100	7	3	3					90	G	G	Y									●		**YGVG-9**	**L**	Remove
27	*Zelkova serrata* **Japanese Zelkova**	0.84	1.26	70	100	7	3	3					90	G	G	Y									●		**YGVG-9**	**L**	Remove
28	*Zelkova serrata* **Japanese Zelkova**	0.84	1.26	70	100	7	3	3					90	G	G	Y									●		**YGVG-9**	**L**	Remove

Legend

Tree to be retained and protected
Tree to be removed due to Construction
Tree to be removed due to other reason
Dead tree or weed species (exempt and can be removed without consent)