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Third Age Merewether Pty Ltd
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110 King Street
North Sydney NSW 2060

Project 91592.00
23 August 2019
R.002. Rev1
MJB:plh

Attention: Tim Mackiewicz

Email: admin@catalystpc.com.au

Dear Tim

Preliminary Contamination Assessment - Summary
Proposed Residential and Clubhouse Development
40 King Street, Adamstown

1. Introduction

This letter report provides a summary of the pertinent findings of a preliminary site investigation (PSI) for contamination undertaken for the proposed residential and clubhouse development located within the broader Merewether Golf Club (MGC), 40 King Street, Adamstown, NSW. The summary report was commissioned by Tim Mackiewicz of Cataylst Project Consulting Pty Ltd on behalf of Third Age Merewether Pty Ltd on 2 July 2019 and was undertaken with reference to Douglas Partners Pty Ltd (DP) proposal NCL190351 dated 6 June 2019.

The assessment comprised a review of DP PSI (DP, 2019) and the site development plans provided by Catalyst (refer to attached development plans and SCC developable land and site plan). The work was conducted with reference to NSW EPA (2011) and NEPC (2013) to confirm potential contamination issues within the proposed development footprint and assess potential remediation measures to facilitate the proposed development.

It is understood at this stage that Third Age Merewether Pty Ltd is seeking a Site Compatibility Certificate for the proposed residential development (Seniors Housing) at MGC. A future development application would then be lodged to build and operate this Seniors Housing proposal. Merewether Golf Club also proposes, at some future time, to redevelop the existing clubhouse at the site to align with this new Seniors Housing development. The primary purpose of this report is therefore to inform the Site Compatibility Certificate application for the proposed Seniors Housing development, however, for the purposes of the overall project, this report has also considered the proposed club house development footprint.

2. Proposed Development

It is understood that the proposed development will comprise the following:

- Demolition of the existing MGC clubhouse, BBQ Area and greens keeper / maintenance shed;
- Construction of a new clubhouse attached to a series of multi-storey seniors-living apartments;
- Construction of new internal pavements and a single level basement car park.

It is understood that the development will be situated in the central northern portion of the MGC property, as shown in the proposed development plans and Drawing 1, attached.

3. Site Description

The 'site' for the purposes of this summary report is considered to be the development footprint for the proposed clubhouse and seniors-living apartments as shown in Drawing 1 and Marchese Partners Developable Land plan, attached. The proposed development footprint is situated within Part Lots 1 to 3 DP 229558 and Part Lot 4 DP 1223244, 40 King Street, Adamstown, NSW.

It is noted that an asset protection zone and emergency services access protection zone has also been demarcated from the broader MGC property and included in the SCC site plan area (refer to attached Marchese Partners SCC site plan) for contingency purposes. We understand that the protection zones do not form part of the development footprint.

The proposed development footprint comprises the current MGC clubhouse and surrounding car park, cart shed, BBQ area, greens keeper shed and associated fuel / chemical storage, practice green and some surrounding sections of the golf course including existing greens and tee off platforms.

4. Background Review

4.1 Introduction

A PSI was undertaken by DP (2019) to identify past and present contaminating activities, report on site condition and provide a preliminary assessment of site contamination conditions for the broader MGC property.

The PSI was undertaken with reference to NSW EPA (2011) and NEPC (2013) and comprised the following:

- Desktop review including review of geological, topographical, soil landscape and acid sulphate soil risk maps and nearby investigations completed by DP in the vicinity of the site;
- Brief site history review to assess the potential for contamination at the site;
- Site inspection by a senior environmental engineer to identify areas of potential contamination and assess current site conditions;
- Preparation of a report presenting the results of the assessment (DP, 2019).

The findings of the PSI (DP, 2019) pertinent to the footprint of the proposed development is outlined below:

4.2 Site History

- The MGC was established in 1933, with the subject site being purchased from Edward Merewether, his widow or deceased estate over a series of years;
- In 1965 the current clubhouse was built (former clubhouse located at the eastern end of the MGC property);
- Several approved building and development applications largely relating to alterations and additional to the clubhouse were identified. A separate approved DAs was identified for the car shed (2008) and a rejected DA for a wash bay and fuel storage tank (2013);
- Review of the Newcastle City Council (NCC) Section 10.7 (2 and 5) Planning Certificates for the site indicated the potentially contaminating activity of 'above and below ground fuel storage' has been identified to be carried out on the land (Lot 1 DP 229558 & Lot 4 DP 1223244).
- Review of a Golf Course Action Plan prepared for MGC in 2005 by Kate Low and Associates and Peter Brown and Associates supplied by NCC indicated the following:
    - Pesticides, herbicides, surfactant, growth retardants and fertilisers are stored and used on-site;
    - Dangerous Goods are stored on-site including a 1000L diesel above ground storage tank (AGST) and 1000L unleaded petrol (ULP) underground storage tank (UST) with bowser;
    - Engine oil is stored on-site and removed by a local contractor as required;
- The greens keeper shed was constructed in the late 1960s to early 1970s;
- The electrical substation directly adjacent the north eastern corner of the site was constructed in the mid-1960s;
- Discussions with site personnel indicated:
    - There were originally two USTs (ULP/Diesel). One was decommissioned due to damage and was replaced with an AGST, however they were eventually both removed along with the bowser and AGST and replaced with the current single dual AGST. Contaminated soils associated with the USTs were remediated on-site through land farming and subsequently used on-site. A validation report for the remediation works was prepared by Pacific Environmental. The report concluded the appropriate validation of the tank pit excavation was achieved, and the excavated soils were suitable for reuse within the site;
    - Pesticides, herbicides, surfactants, growth inhibitors, wetting agents, fertilisers etc are stored and used on-site. Chemicals containing dieldrin, chlordane, mercury based fungicides etc were phased out in the late 1980's;
    - Imported fill from various sources have been brought to site over the years and used across the site. Regular routine soil delivery from landscape suppliers is also conducted to top dress greens and top up bunkers.

4.3 Site Condition:

Site conditions observed within the site (ie development footprint) during the preliminary site inspection on 13 June 2019 are summarised below.

The site is situated in the vicinity of the current clubhouse, greens keeper shed, cart shed, BBQ area, car park and immediately surrounding fairways, tees and greens (refer to Figures below).

The club house is situated off King Street and comprises a two storey building with a Pro Shop, club administration, bar and restaurant, amenities, staff lunch rooms etc. The clubhouse appears to have had some modifications since its original construction, with more recent façade changes evident.

The clubhouse has a practice green at the northern end of the building (Figures 8 & 10) which appears to be partially filled.

A raised garden bed to the west of this practice green (Figure 9 & 11) appears to comprise at least a few metres of filling. An adjoining garden bed to the west of the clubhouse (Figure 7) also appears to comprise recently imported fill materials.

Figure 6: MGC Clubhouse and entrance driveway / carpark (looking northwest)

Figure 7: MGC Clubhouse with adjoining greens and associated fill embankments (looking east).

Figure 8: MGC Clubhouse with practice green (looking south)

Figure 9: Raised grassed / garden bed (former sand pit) west of practice green

Figure 10: Clubhouse and practice green with paved and asphalt sealed pathways (looking south west)

Figure 11: Raised fill embankment (looking south from 1st tee)

An asphalt sealed driveway and carpark is situated off King Street (Figure 12 & 17) and extends to the south of the clubhouse. The car park is patchy in some sections with exposed aggregate present.

Figure 12: Entrance driveway / carpark and Clubhouse (looking south)

A rear entrance to the kitchen is present at the southern side of the building and contains gas bottles, kegs, compressor, possible sump, air conditioning units etc (Figure 13). The adjacent area comprises loose gravel fill materials.

Figure 13: Rear of Clubhouse with gas bottles, compressors, possible sump (looking west)

The western side of the clubhouse comprises a newer concrete path with adjoining raised garden bed (Figure 14).

Demolition waste (including fragments of possible bonded asbestos containing materials (ACM)) were observed at the ground surface adjacent to the building (Figures 15 & 16) and were located at the base of a section of rendered wall which has been an addition at some point. Several holes had also been cut into the brick work exposing sandy fill materials.

Figure 14: Clubhouse with concrete path and raised garden beds (looking north)

Figure 15: Construction works / repairs to the western wall of clubhouse. Possible ACM at surface (looking north east)

Figure 16: Possible ACM fragments at surface (fibro fragments)

An approximately 1 m high retaining wall was situated at the southern end of the car park with granular fill materials evident where exposed. A shade shelter was situated to the east of this area and was adjacent to the 9th tee.

Figure 17: Carpark to south of clubhouse. Retaining wall with exposed fill evident in foreground (looking north)

A BBQ area is situated to the south west of the clubhouse (Figure 18) which is adjacent to the cart shed. The cart shed is a metal clad shed with concrete floor and is used to house and recharge the golf carts (run on batteries). Raised garden beds are present on the southern side of the shed.

Figure 18: BBQ Area and golf cart shed to rear (looking south west)

Figure 19: Golf cart shed, adjacent wash bay and gravel bay (looking east)

A greens keeper shed is located to the south west of the gold cart shed (Figures 20 to 28). The shed is metal clad with a concrete floor and has been cut into the natural batter (cut/fill). The front of the shed contains a concrete slab with sump (full of water at the time of the inspection) with an adjacent above ground fuel storage tank housing diesel and ULP (Figure 21).

Figure 20: Greens keeper shed and adjacent creek (looking south west)

Figure 21: AGST with adjacent sump (full water)

The shed itself houses machinery, parts, tools and a range of pesticides, herbicides, fertilisers, oils etc. The chemicals are stored on crates and in bunded areas, however, the condition of some containers / bags were in a poor state and residues and spills are evident across the concrete floor.

Figure 22: Entrance to Greens keeper shed (looking west)

Figure 23: Machinery (including boom spray), oils, chemicals, pesticides stored in shed over concrete floor (looking west)

Figure 24: Stored chemicals within chemical store (looking south west)

Figure 25: Pesticide storage area within chemical store with shallow concrete bund. Some spilled residues across floor (looking south east)

A servicing and wash bay area is situated at the western end of the shed. The area drains directly into the creek / drain running along the side of the shed which flows down to the west and would eventually discharge into the stormwater channel north of the 1st fairway. The drain was observed to contain algae and organic residues and grass clippings.

Figure 26: Northern side of shed with wash down area (looking south west)

Figure 27: Wash down area with drain in centre (looking south east)

Figure 28: Open drain / creek to north greens keeper shed (looking west). Distressed grass possible indicating pesticides application.

Figure 29: Drain / creek downslope of wash down area (algae and organic residues evident at surface)

A localised soil stockpiling area was present to the west of the cart shed (Figure 30). The area comprised several stockpiles of gravel and sand. The stockpiles all contained building wastes including brick and concrete and other deleterious materials. Some green waste was also stockpiled here.

Figure 30: Soil stockpile area between cart shed and greens keeper shed

The surrounding golf course has numerous fill bunds, filled garden beds and raised areas. While these are largely associated with greens, and tee off platforms there is also a number of earth mounds across the site. Where not covered by vegetation, some of these were observed to comprise granular fill material with anthropogenic inclusions including concrete and brick etc.

Figure 31: 9th Tee with filled area adjacent to a retaining wall and filled garden bed to south

Figure 32: Exposed concrete fragments in recently completed garden bed (looking south west)

Figure 33: Looking towards the shade shelter and car park. Benching evident (looking west)

Figure 34: Panoramic view of fairway to the south west of the greens keeper shed

An electrical substation is located to the north of the site, east of the MGC entrance car park. The substation has a concrete floor, sloped steeply with the natural land surface to the north east corner of the bunded area. Stormwater feeds into a pit just outside the compound in the golf course and appears to flow to the east through the golf course to the east of the site.

Figure 66: Electrical Substation north of 8th fairway (looking north west)

Figure 67: Electrical substation and practice nets adjacent to entrance to MGC (looking north east)

Adjacent site uses comprise:

- The remainder of the MGC Golf Course to the east, south and west;
- Residential premises to the north;
- Electrical substations to the east of clubhouse entrance.

Approximate photo locations and orientations are shown on Drawing 1, attached.

4.4 Potential Contaminants

Based on the available site history information and observations made during the site inspection, the principal sources of potential contamination associated with the subject site are considered to be:

On Site

- Additions and alterations to the clubhouse including possible ACM impact to adjacent soils;
- Imported fill materials which may contain a range of potential contaminants (including ACM, hydrocarbons, heavy metals) depending on the source. The historical importation of fill from various sources along with site observations would suggest areas of filling may contain hazardous building materials (ie ACM);
- Fuel storage facilities on the site which may have resulted in localised hydrocarbon and heavy metal impact to soils and adjacent / downstream drain sediments and surface water;
- Storage and use of oils, pesticides, fertilisers and other chemicals;
- Servicing of vehicles / machinery, and associated storage of machinery / parts on site;
- Wash down areas and associated sumps and adjacent drains / creeks;
- Restaurant facilities on-site which are assumed to have a grease trap (possible sump adjacent to clubhouse);
- Possible coal tar pavements within car park, given the age and historical use of coal tar in bitumen pavements in the area;
- Near surface soils within the golf course and bowling greens which may contain residual pesticides.

Off Site

- The electrical substation on the northern site boundary which drains onto the golf course to the east of the substation may be a source of PCB, heavy metals and hydrocarbons. Surface water is collected in pits which appears to discharged to the golf course east of the substation (ie to east of proposed development footprint);

- Former Glebe Hill colliery located up-gradient and to the south of the site which may have been impacted by hydrocarbons, heavy metals. It is not known whether any shafts or drifts associated with the colliery are located on-site which can be sources of mine gases and waste backfill.

5. Comments / Recommendations

The PSI (DP, 2019) has identified a number of potential contamination sources from the current and former land uses on site and adjacent to the site which may have resulted in contamination to the site.

The presence, extent or implications of potential contamination has not been confirmed to date. Further assessment will be required to assess possible remediation requirements associated with the potential contamination sources identified within the site, prior to development.

Subject to the results of subsurface investigation, remediation of the site (where required) is likely to be readily achieved using standard remediation techniques including land farming (volatile hydrocarbon contamination), off-site disposal to a licensed landfill and/or on-site management (capping), subject to regulatory approvals.

It is noted that a one-level basement is proposed across the majority of the proposed building footprint. The bulk excavation associated with this basement will provide an opportunity to segregate and manage the bulk of filling and potentially contaminated soils across the site.

Investigation should be conducted with reference to the NSW EPA guidelines (NSW EPA, 2011) and recommendations of the PSI (DP, 2019). Remediation (where required), should be conducted in accordance with a site specific remediation action plan (RAP) to be approved by NCC prior to development as part of the DA process for the proposed development.

The site is therefore considered to be suitable for the proposed development from a contamination perspective, subject to appropriate investigation, remediation and validation where required.

If works outside the site (ie developable area as shown on Drawing 1) are required for the proposed development (ie for service connections, modifications to course grounds etc), further investigation will be required with reference to DP (2019) to assess possible remediation requirements associated with the identified potential contamination sources.

6. References

DP (2019), *Report on Preliminary Site Investigation for Contamination, Proposed Residential, Clubhouse and Course Development, 40 King Street, Adamstown*, Douglas Partners Pty Ltd, Ref 91595.00.R.001.DftA.

NSW EPA (2011), *Guidelines for Consultants Reporting on Contaminated Sites*, New South Wales Environmental Protection Authority.

NEPC (2013), *National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013*, National Environment Protection Council.

7. Limitations

Douglas Partners Pty Ltd (DP) has prepared this report for this project at 40 King Street, Adamstown with reference to DP's proposal dated 28 June 2019 and acceptance received from Tim Mackiewicz of Cataylst Project Consulting Pty Ltd on behalf of Third Age Merewether Pty Ltd on 2 July 2019. The work was carried out under DP's Conditions of Engagement. This report is provided for the exclusive use of Third Age Merewether Pty Ltd for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

The results provided in the report are indicative of the conditions on the site at the time the work was carried out. Conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after DP's inspection has been completed.

DP's advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by DP in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by DP. This is because this report has been written as advice and opinion rather than instructions for construction.

Building demolition materials, such as concrete, brick, tile and possible ACM were observed in exposed ground filling and/or above-ground stockpiles and these are considered as indicative of the possible presence of hazardous building materials (HBM), including asbestos. It is therefore considered possible that HBM, including asbestos, may be present in unobserved parts of the site.

Further investigation will be required to assess possible remediation requirements for any works outside the site (ie developable area shown on Drawing 1).

The contents of this report do not constitute formal design components such as are required, by the Health and Safety Legislation and Regulations, to be included in a Safety Report specifying the hazards likely to be encountered during construction and the controls required to mitigate risk. This design process requires risk assessment to be undertaken, with such assessment being dependent upon factors relating to likelihood of occurrence and consequences of damage to property and to life. This, in turn, requires project data and analysis presently beyond the knowledge and project role respectively of DP. DP may be able, however, to assist the client in carrying out a risk assessment of potential hazards contained in the Comments section of this report, as an extension to the current scope of works, if so requested, and provided that suitable additional information is made available to DP. Any such risk assessment would, however, be necessarily restricted to the environmental components set out in this report and to their application by the project designers to project design, construction, maintenance and demolition.

Please contact the undersigned if you have any questions on this matter.

Yours faithfully
Douglas Partners Pty Ltd Reviewed by

Matthew Blackert **Chris Bozinovski**
Senior Associate Principal

Attachments: About this Report
Drawing 1 – Site Features
Marchese Partners Proposed Development Plans
Marchese Partners – SCC MGC – Developable Land Plan
Marchese Partners – SCC MGC – SCC Site Plan

About this Report

Douglas Partners

Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Copyright

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;
- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

Drawing adapted from Nearmap image dated 22.4.2019, and plan by Marchese Partners "Indicative Building Footprint Layout", Ref 17090_Merewether Golf Course.

0 50 100 m

Legend

- MGC Property Boundary
- Site Boundary
- Photo Location and Orientation

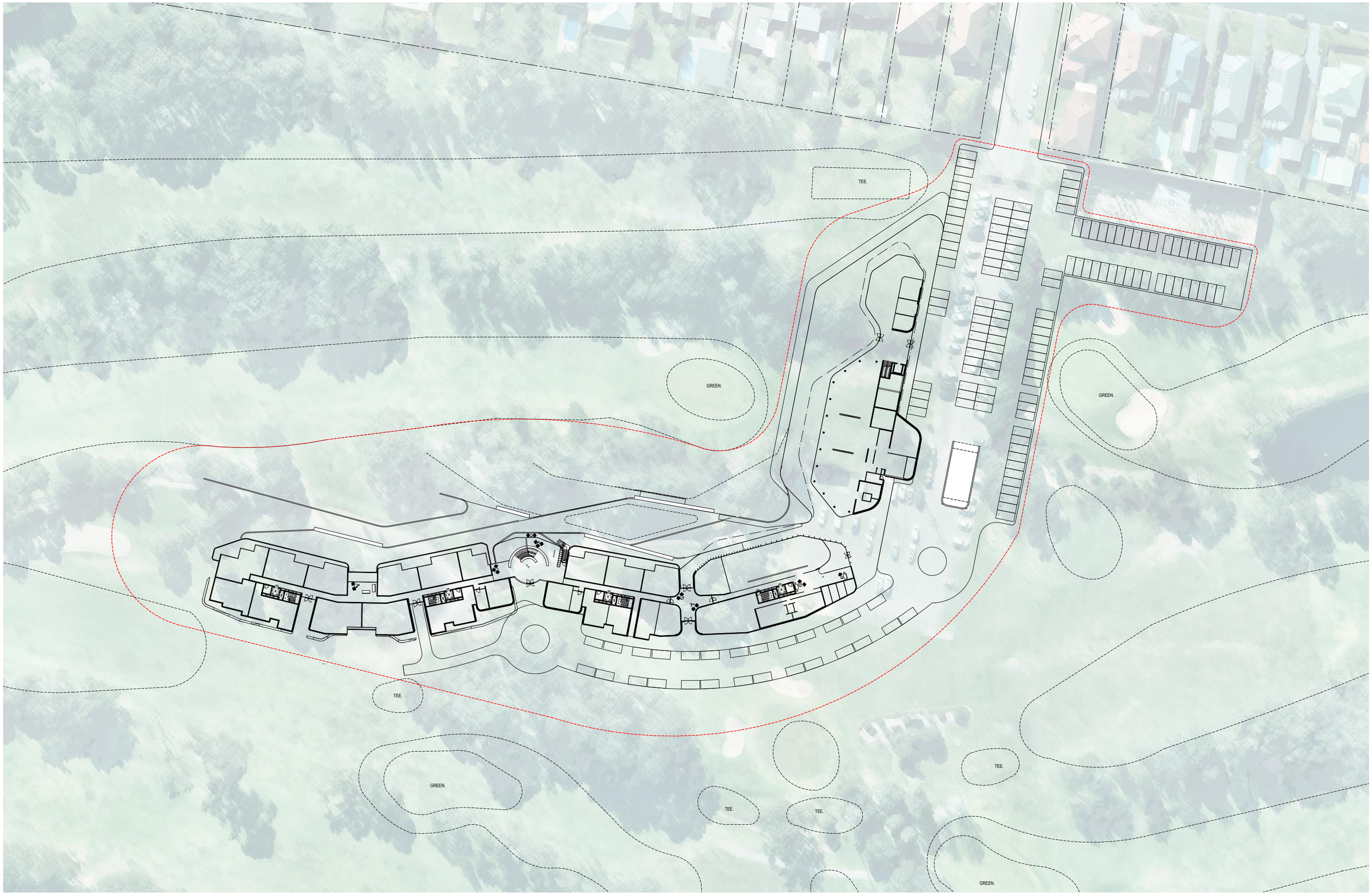
Douglas Partners
Geotechnics / Environment / Groundwater

CLIENT:	Third Age Merewether Pty Ltd	
OFFICE:	Newcastle	DRAWN BY: PLH
SCALE:	1:1500 @ A3	DATE: 05.July.2019

TITLE: **Site Features**
Proposed Residential and Clubhouse Development
40 King Street, Adamstown

N

PROJECT:	91592.00.R002
DRAWING No:	1
REVISION:	0



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INDICATIVE BUILDING FOOTPRINT LAYOUT

17090_MEREWETHER GOLF COURSE

EXTRAS
IND. BUILDING FOOTPRINT

1:1000@A3

FF

AA

BB

CC

DD

EE

TEE.

GREEN.

+22.340

86 CPS

BUGGIE STORAGE

CART WORKSHOP

+22.340 WAITING AREA

MALE CR

FEMALE CR

STORAGE

CLUB PARKING. 82 CPS. +22.340

1:8

1:4

1:8

FF

EE

77m²

94m²

92m²

93m²

95m²

63m²

WORK SHOP

MEN SHED

CELLAR

S

CARTS. 23 CPS.

+22.040

ILU'S PARKING. 185 CPS. +22.340

POWER LINE EASEMENT

AA

BB

CC

DD

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17090_MEREWETHER GOLF COURSE

A3_INDESIGN
LOWER GROUND

1:750 @A3

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17090_MEREWETHER GOLF COURSE | A3_INDESIGN GROUND FLOOR | 1:750 @A3

FF
AA
BB
CC
DD
EE
TEE.
GREEN.
PRE FUNCTION TERRACE .
FUNCTION TERRACE
. FUNCTION 03.
FUNCTION 02.
FUNCTION 01.
MEETING ROOM.
KITCHEN
STAIRS
LIFT
106m²
94m²
92m²
110m²
82m²
108m²
POWER LINE EASEMENT

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17090_MEREWETHER GOLF COURSE | A3_INDESIGN LEVEL 01 | 1:750 @A3

FF

AA

BB

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DD

EE

TEE.

GREEN.

106m²
94m²
92m²
110m²
82m²
108m²
LIFT
LIFT
STAIRS

POWER LINE EASEMENT

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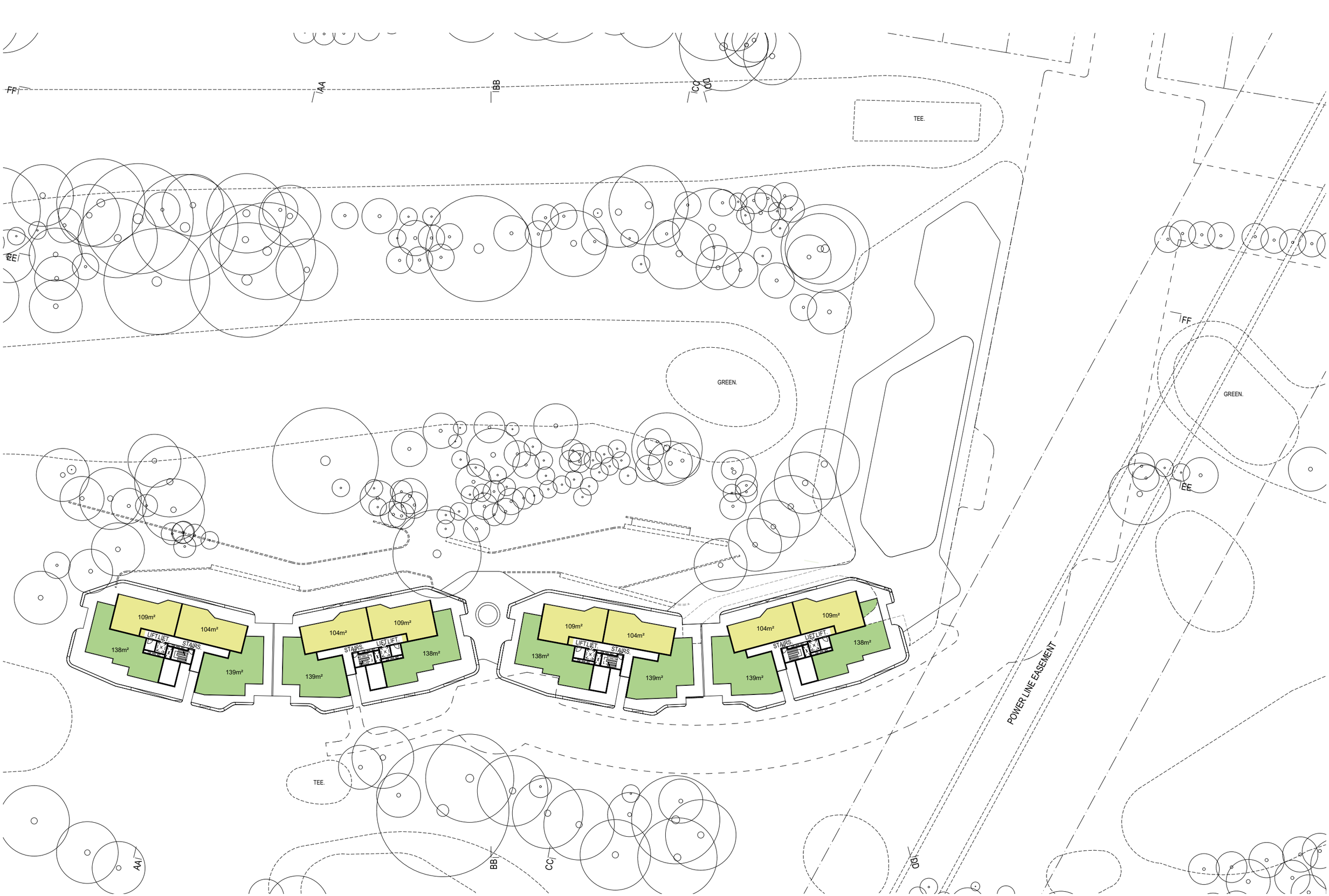
17090_MEREWETHER GOLF COURSE

A3_INDESIGN
TYPICAL

1:750 @A3



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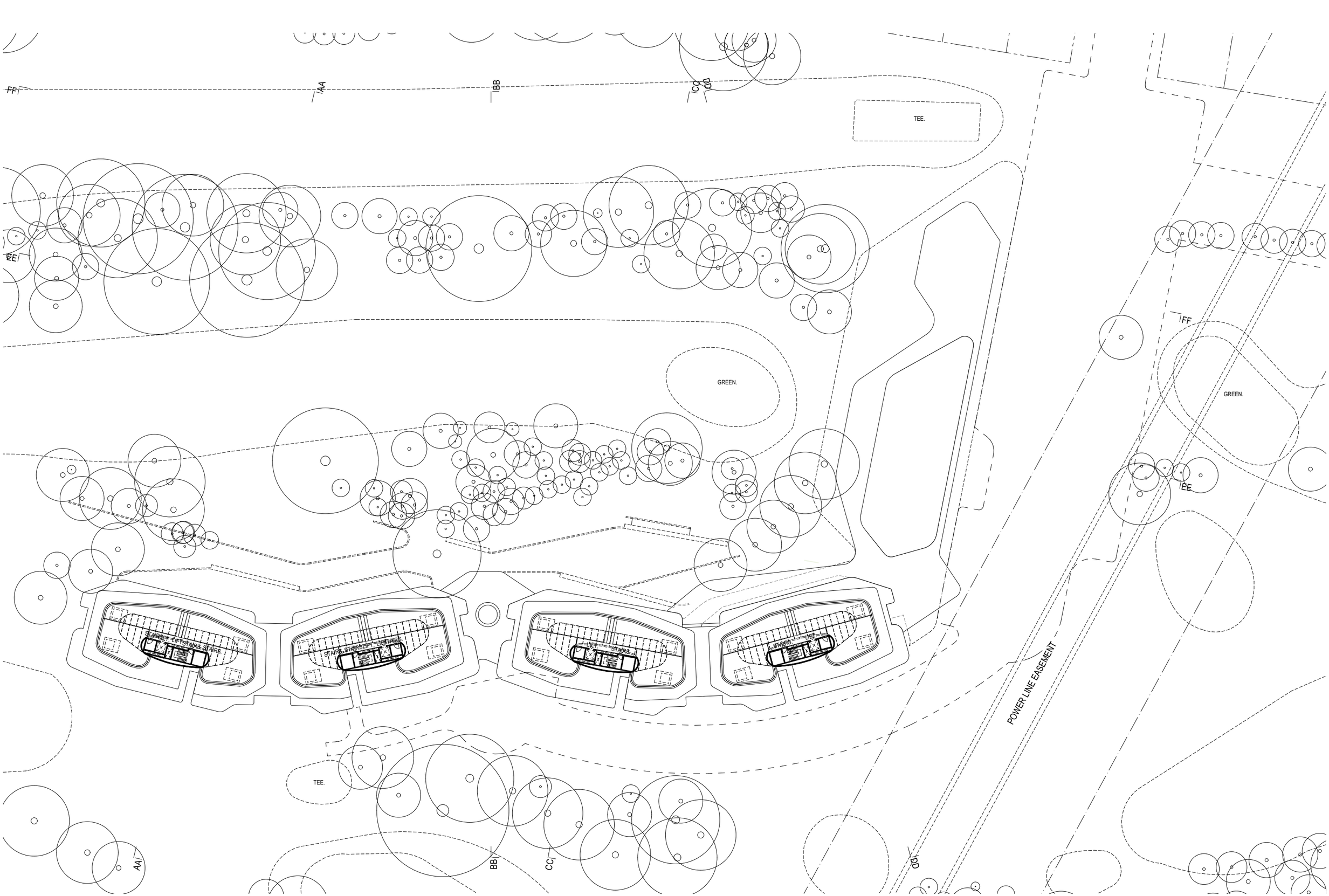
17090_MEREWETHER GOLF COURSE | A3_INDESIGN PENTHOUSE | 1:750 @A3



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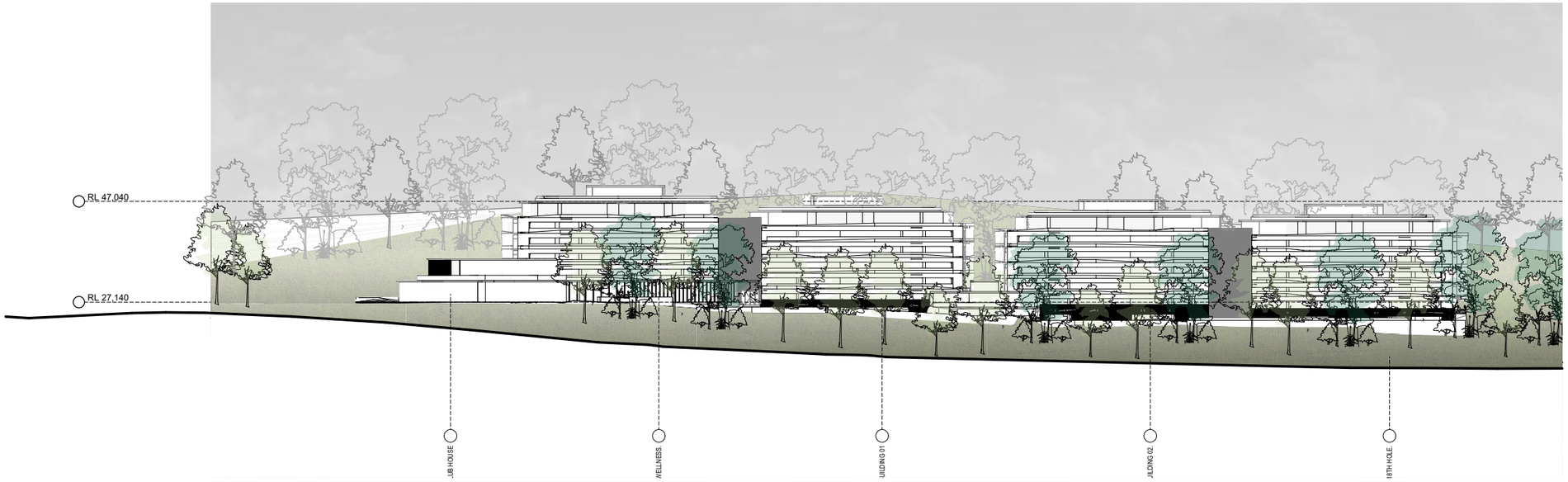
17090_MEREWETHER GOLF COURSE | A3_INDESIGN ROOF | 1:750 @A3



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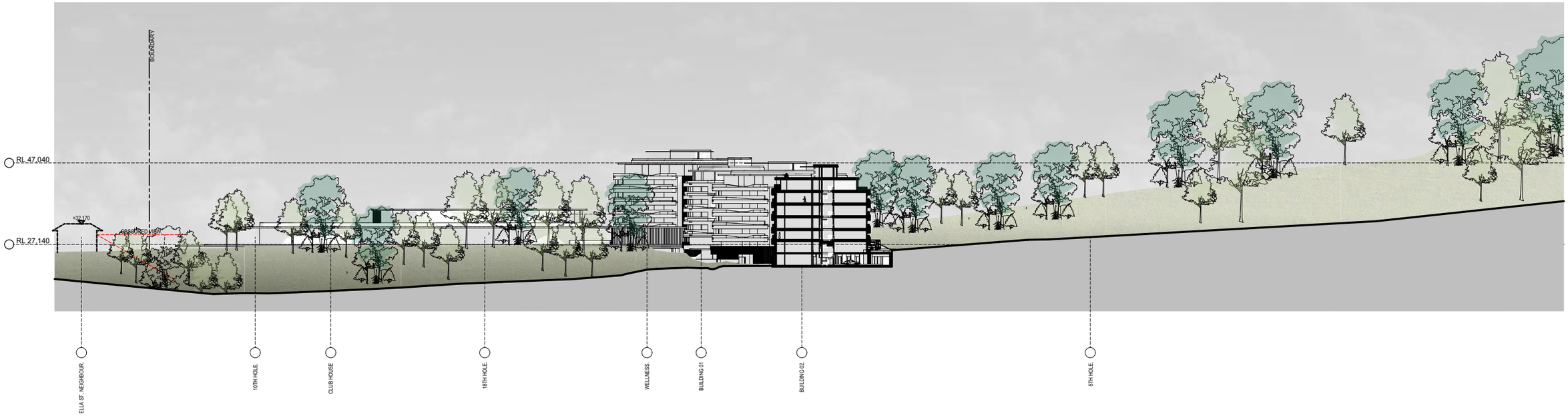

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A3
SECTION AA

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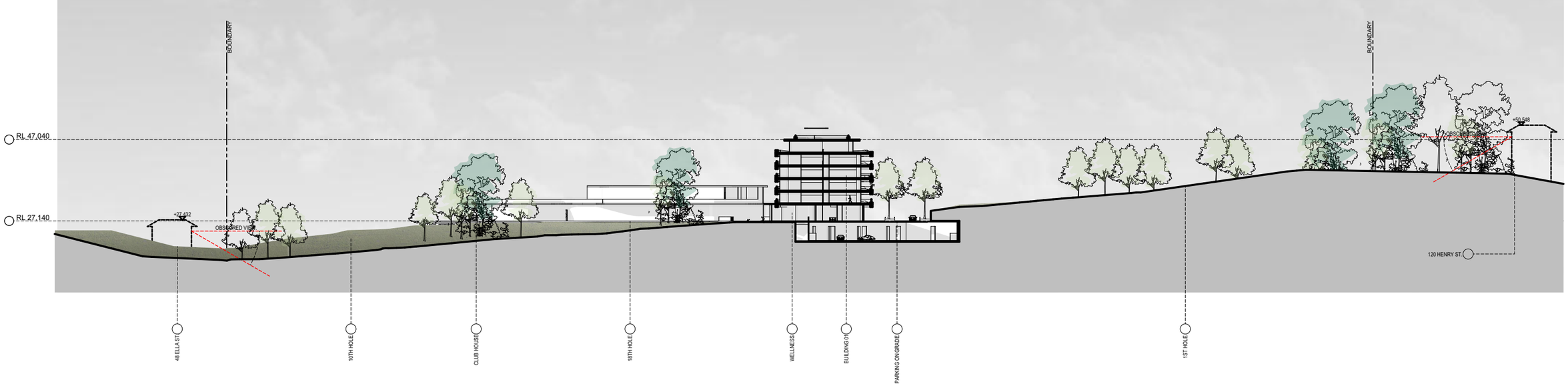

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17090_MEREWETHER GOLF COURSE | A3 SECTION BB | 1:1000@A3

developable land

bushfire catergory 1 zone
bushfire buffer zone zone
asset protection zone
SWD stormwater discharge
SD sewer discharge
scc site plan

marchesepartners

SCC
Merewether Golf Club
June 2019

scc site plan