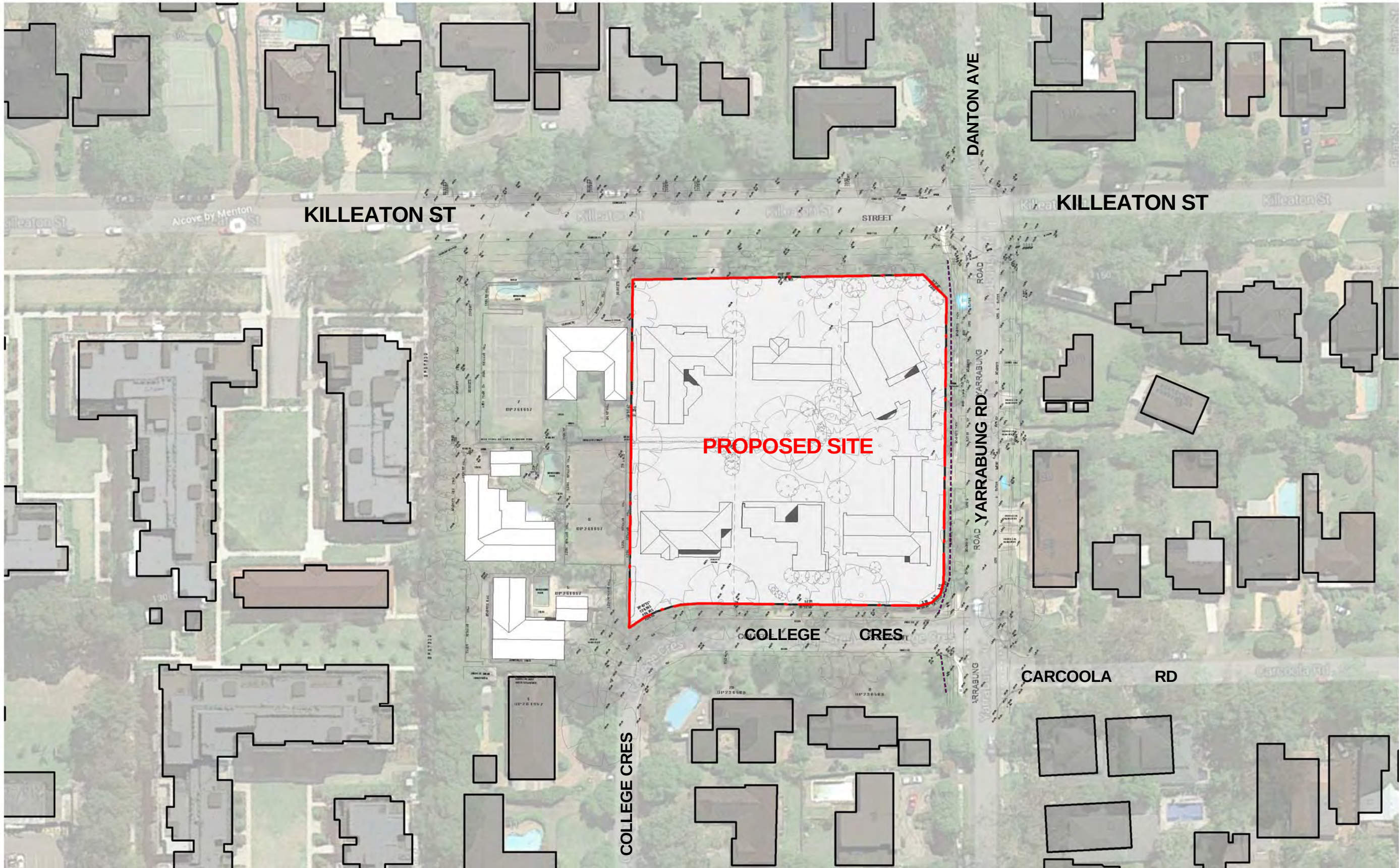


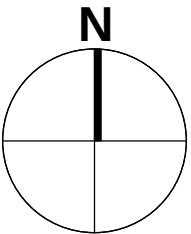
ESTIA HEALTH - AGED CARE FACILITY

144 - 146 KILLEATON STREET
1 YARRABUNG ROAD
1, 3, 5 COLLEGE CRESCENT
ST IVES - NSW

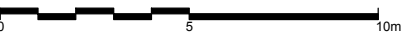
DEVELOPMENT APPLICATION

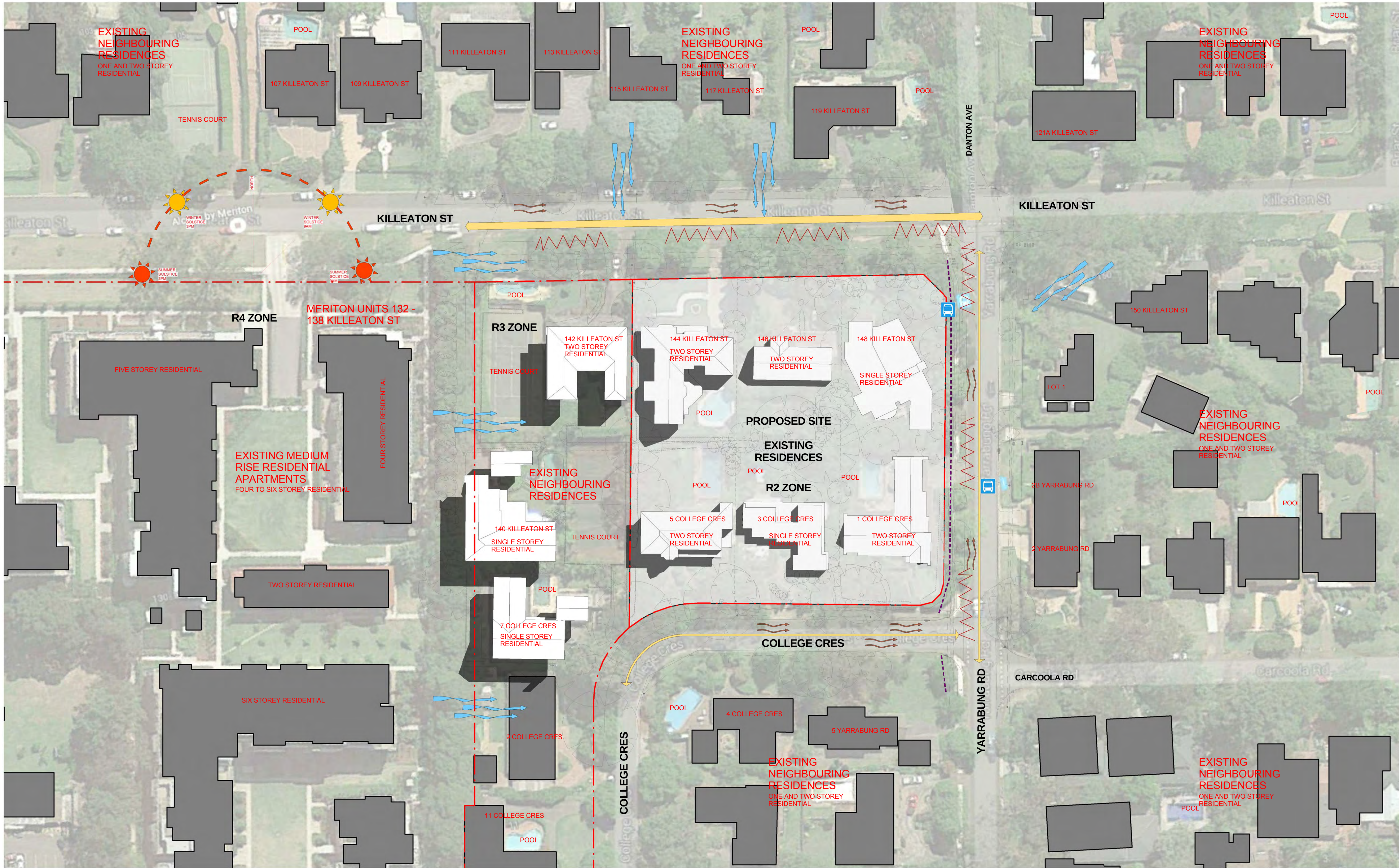


DESIGN SERIES	
Sheet Number	Sheet Name
A030	EXISTING CONTEXT SITE ANALYSIS
A031	PROPOSED CONTEXT SITE ANALYSIS
A032	FUTURE CONTEXT SITE ANALYSIS
A034	PROPOSED SITE ANALYSIS
A050	DEMOLITION AND TREE REMOVAL PLAN
A100	BASEMENT PLAN
A101	GROUND FLOOR PLAN
A102	FIRST FLOOR PLAN
A103	ROOF PLAN
A201A	PROPOSED STREETSCAPE ELEVATIONS - NORTH
A201B	PROPOSED STREETSCAPE ELEVATIONS - SOUTH
A201C	PROPOSED STREETSCAPE ELEVATIONS - EAST
A202	PROPOSED ELEVATIONS - 1
A203	PROPOSED ELEVATIONS - 2
A204	TYPICAL INTERNAL AND COURTYARD ELEVATIONS
A301	PROPOSED SECTIONS - 1
A302	PROPOSED SECTIONS - 2
A303	SITE SECTIONS
A304	SITE SECTIONS SHEET 2
A305	COMPARISON PLAN AND TREE 10 SITE SECTION
A900	SHADOW DIAGRAMS - PROPOSED



REV	DATE	AMENDMENT	INITIALS	CHECK	PROJECT NO.	DRAWING NO.	REVISION
DA01	2016-06-28	DA SUBMISSION	AK	GO	2919	A001	DA03
DA02	2016-07-22	DA SUBMISSION	AK	GO			
DA03	2017-04-06	AMENDED DA ISSUE	AK	MM			
SCALE					:	1 : 1000	
DRAWN					:	AK	
PROJECT PRINCIPLE					:	G. OLLERTON	
DATE					:	28 JUNE 2016	





Site Area

Total Site Area

7066 m²

PROPOSED PLANTING

EXISTING 150mm VCP
SEWER TO BE REMOVED

PROPOSED SEWER
DIVERSION

TREE/ SHRUB TO BE
RELOCATED
(T72, T73, T53, T54, T55, T56)

PROPOSED UPPER LEVEL
ENVELOPE

PROPOSED BASEMENT
LEVEL ENVELOPE

TREE TO BE RETAINED

TREE TO BE REMOVED

LEGEND

SITE BOUNDARY

NEIGHBOURING
RESIDENCE

EXISTING STRUCTURE
(RETAIN)

FUTURE DEVELOPMENT

VEHICLE MOVEMENT -
SLOW

FAST

SUN PATH

PEDESTRIAN MOVEMENT

NOISE

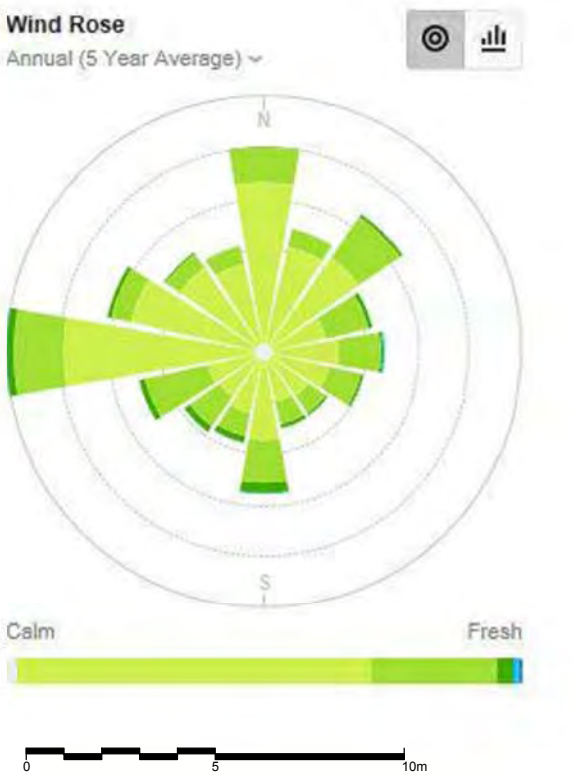
PRIVACY/ OVERLOOKING

SIGNIFICANT VIEWS

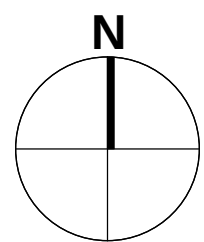
WIND DIRECTION

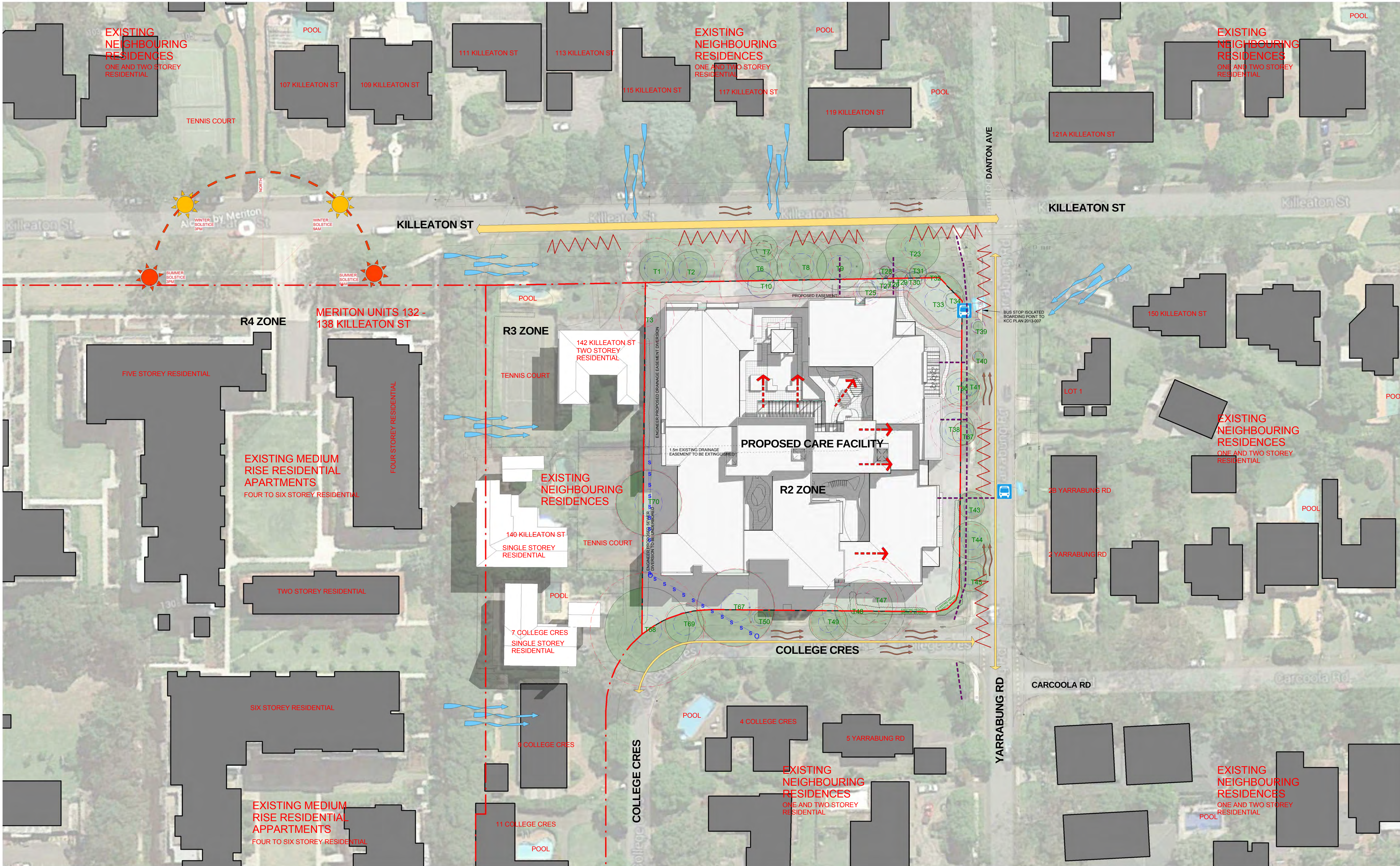
BUSHFIRE THREAT

DOWNWARD SLOPE



1 Site Analysis Existing - Context
1 : 500





Site Area

Total Site Area

7066 m²

PROPOSED PLANTING

EXISTING 150mm VCP
SEWER TO BE REMOVED

PROPOSED SEWER
DIVERSION

PROPOSED EASEMENT
REFER TO CIVIL
DOCUMENTATION

EXISTING EASEMENT

TREE/ SHRUB TO BE
RELOCATED
(T72, T73, T53, T54, T55, T56)

PROPOSED UPPER LEVEL
ENVELOPE

PROPOSED BASEMENT
LEVEL ENVELOPE

TREE TO BE RETAINED

TREE TO BE REMOVED

LEGEND

SITE BOUNDARY

NEIGHBOURING
RESIDENCE

EXISTING STRUCTURE
(RETAIN)

FUTURE DEVELOPMENT

VEHICLE MOVEMENT -
SLOW

FAST

SUN PATH

PEDESTRIAN MOVEMENT

NOISE

PRIVACY/OVERLOOKING

SIGNIFICANT VIEWS

WIND DIRECTION

BUSHFIRE THREAT

DOWNWARD SLOPE

BEDROOMS

LEVEL	CAREHOUSE	BED NUMBER
GL	POD 1	18
	POD 2	18
	POD 3	19
	POD 4	18
FFL	POD 1	22
	POD 3	23
TOTAL BEDS		118

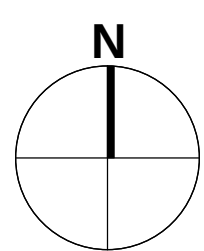
Wind Rose

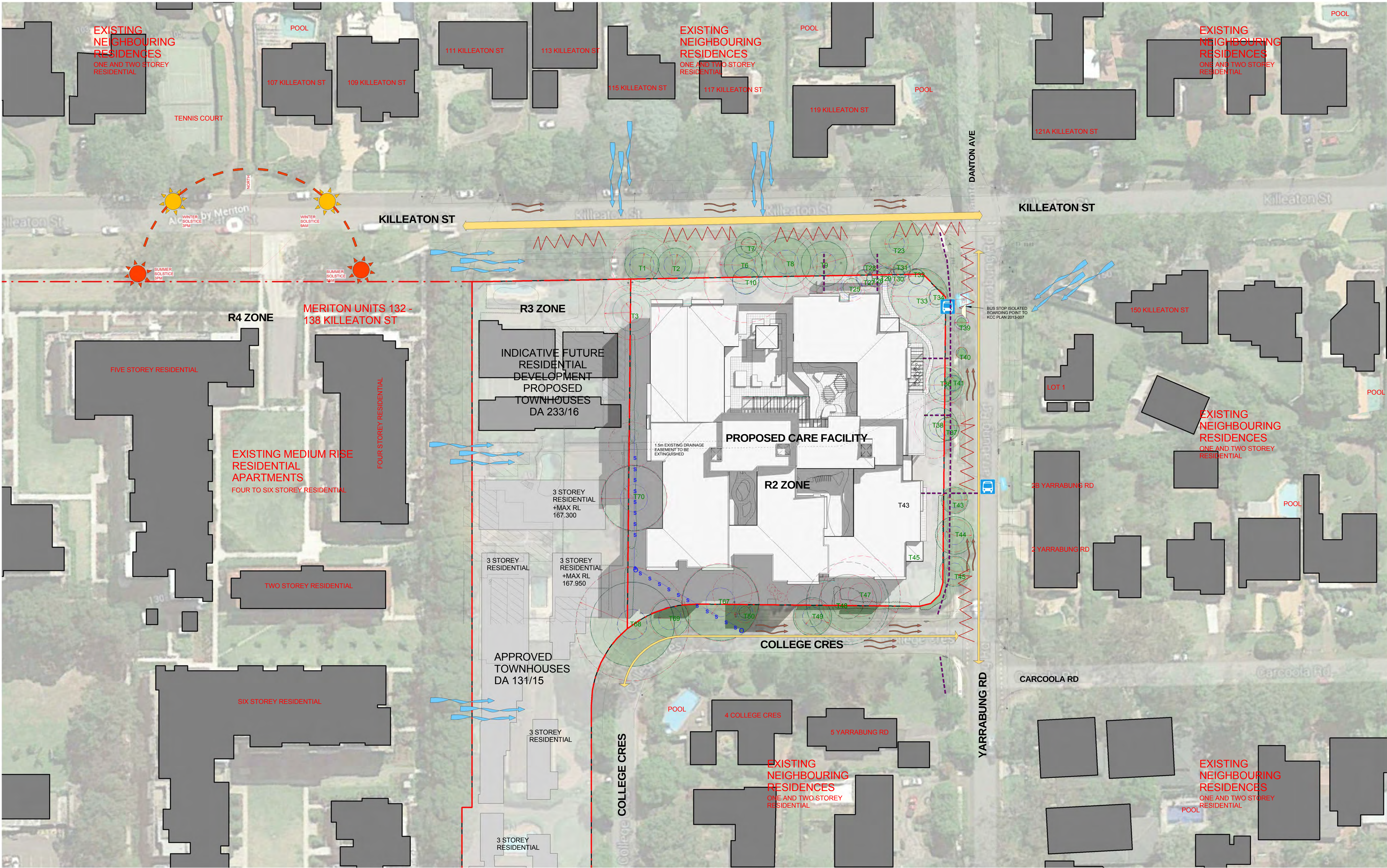
Annual (5 Year Average)

CalmFresh

02m

1 Site Analysis Proposed - Context
1 : 500





1 Site Analysis Future - Context
1 : 500

Site Area
Total Site Area
7066 m²

PROPOSED PLANTING
— S — EXISTING 150mm VCP SEWER TO BE REMOVED
— S — PROPOSED SEWER DIVERSION
— T — TREE/ SHRUB TO BE RELOCATED (T72, T73, T53, T54, T55, T56)

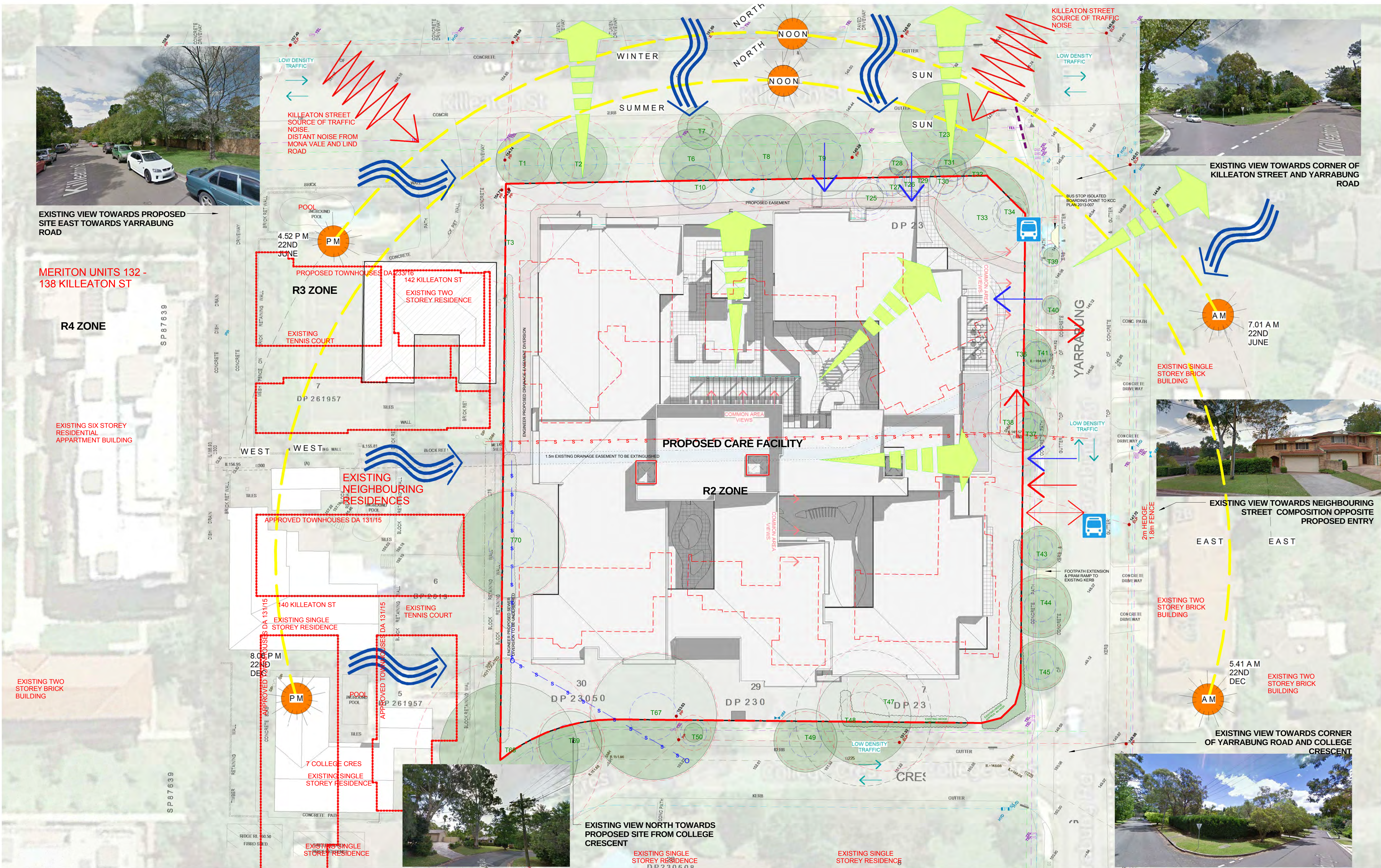
PROPOSED UPPER LEVEL ENVELOPE
PROPOSED BASEMENT LEVEL ENVELOPE

TREE TO BE RETAINED
TREE TO BE REMOVED

LEGEND
— SITE BOUNDARY
— NEIGHBOURING RESIDENCE
— EXISTING STRUCTURE (RETAIN)
— FUTURE DEVELOPMENT
— VEHICLE MOVEMENT - SLOW
— FAST
— SUN PATH
— PEDESTRIAN MOVEMENT
— NOISE
— PRIVACY/ OVERLOOKING
— SIGNIFICANT VIEWS
— WIND DIRECTION
— BUSHFIRE THREAT
— DOWNWARD SLOPE

BEDROOMS		
LEVEL	CAREHOUSE	BED NUMBER
GL	POD 1	18
	POD 2	18
	POD 3	19
	POD 4	18
FFL	POD 1	22
	POD 3	23
TOTAL BEDS		118





- Site Area

Total Site Area

7066 m²
- EXISTING BUILDING TO BE DEMOLISHED
- EXISTING TELSTRA
- EXISTING POWER
- EXISTING GAS
- EXISTING WATER
- WM

EXISTING WATER METER
- LOW DENSITY TRAFFIC
- COMMON AREA VIEWS
- BED VIEWS
- TURF, GROUNDCOVERS, TREES SHOWN GREEN
- 2 STOREY CONTEXT BUILDING
- TRAFFIC NOISE
- BREEZES
- TRAFFIC VEHICULAR ACCESS
- PEDESTRIAN ACCESS
- VIEWS
- SUN PATH
- LIFT OVER-RUN (LOCATED TO MINIMISE NOISE, NOT VISIBLE FROM STREET)
- TREE TO BE RETAINED
- TREE TO BE REMOVED
- PROPOSED PLANTING
- S

EXISTING 150mm VCP SEWER TO BE REMOVED
- S

PROPOSED SEWER DIVERSION
- PROPOSED EASEMENT REFER TO CIVIL DOCUMENTATION
- EXISTING EASEMENT
- T-

TREE/ SHRUB TO BE RELOCATED (T72, T73, T53, T54, T55, T56)
- Wind Rose

Annual (S Year Average)

BEDROOMS		
LEVEL	CAREHOUSE	BED NUMBER
GL	POD 1	18
	POD 2	18
	POD 3	19
	POD 4	18
FFL	POD 1	22
	POD 3	23
TOTAL BEDS		118

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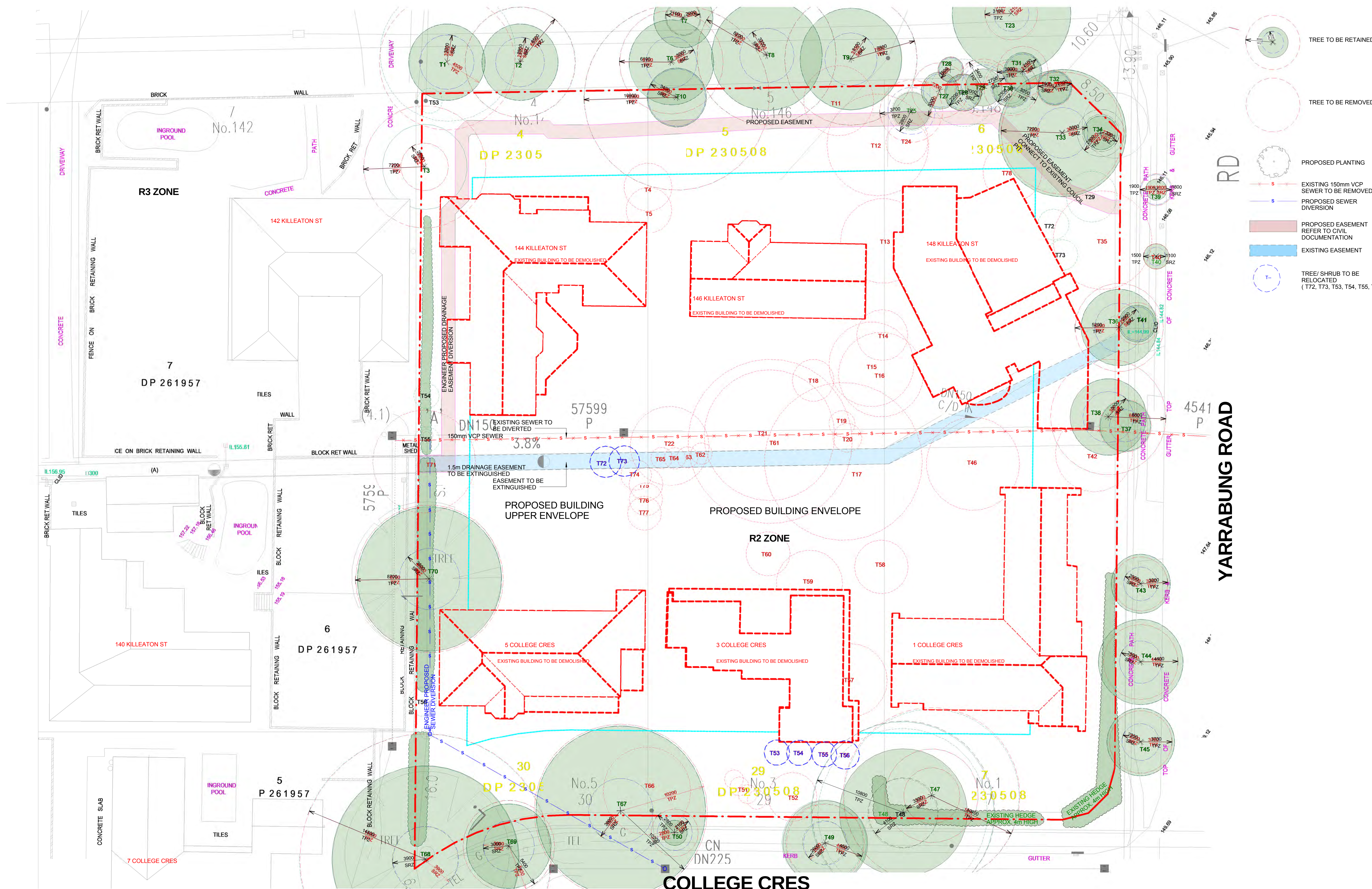
1404

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- TREE TO BE RETAINED
- TREE TO BE REMOVED
- PROPOSED PLANTING
- EXISTING 150mm VCP SEWER TO BE REMOVED
- PROPOSED SEWER DIVERSION
- PROPOSED EASEMENT REFER TO CIVIL DOCUMENTATION
- EXISTING EASEMENT
- TREE/ SHRUB TO BE RELOCATED (T72, T73, T53, T54, T55, T56)

architecture
interior design
project management

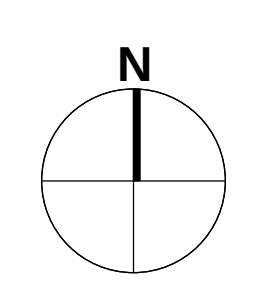
NSW ARB REG ARCHITECT: G. OLLERTON #7621
ACN: 001 595 268 ABN: 44 001 595 268 mormondesign@mdpa.com.au
Suite 302 69 Christie Street St Leonards NSW 2065 102 996655661 www.mdpa.com.au



PROJECT:
ST IVES

144-148 KILLEATON STREET
COLLEGE CRES ST IVES NSW 2075

DRAWING TITLE:
DEMOLITION AND TREE REMOVAL
PLAN



REV	DATE	AMENDMENT	INITIALS	CHECK	PROJECT NO.	DRAWING NO.	REVISION
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DA03	2017-04-06	AMENDED DA ISSUE	AK	MM			
SCALE :					As indicated		
DRAWN :					AK		
PROJECT PRINCIPLE :					G. OLLERTON		
DATE :					28 JUNE 2016		





Site Area
Total Site Area
7066 m ²

- TREE TO BE RETAINED
- PROPOSED PLANTING
- EXISTING 150mm VCP SEWER TO BE REMOVED
- PROPOSED SEWER DIVERSION
- TREE/ SHRUB TO BE RELOCATED (T72, T73, T53, T54, T55, T56)

- AMENITIES
- BOH
- COMMUNAL
- EXTERNAL
- GENERAL
- MULTI-PURPOSE
- POD 1
- POD 2
- POD 3
- POD 4
- SPECIALTY
- STAFF FACILITIES

BEDROOMS		
LEVEL	CAREHOUSE	BED NUMBER
GL	POD 1	18
	POD 2	18
	POD 3	19
	POD 4	18
FFL	POD 1	22
	POD 3	23
TOTAL BEDS		118



Site Area
Total Site Area
7066 m ²

- TREE TO BE RETAINED
- PROPOSED PLANTING
- EXISTING 150mm VCP SEWER TO BE REMOVED
- PROPOSED SEWER DIVERSION
- TREE/SHRUB TO BE RELOCATED (T72, T73, T53, T54, T55, T56)

- AMENITIES
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- POD 1
- POD 2
- POD 3
- POD 4
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- STAFF FACILITIES

BEDROOMS		
LEVEL	CAREHOUSE	BED NUMBER
GL	POD 1	18
	POD 2	18
	POD 3	19
	POD 4	18
FFL	POD 1	22
	POD 3	23
TOTAL BEDS		118

2 GL Plan
1 : 200

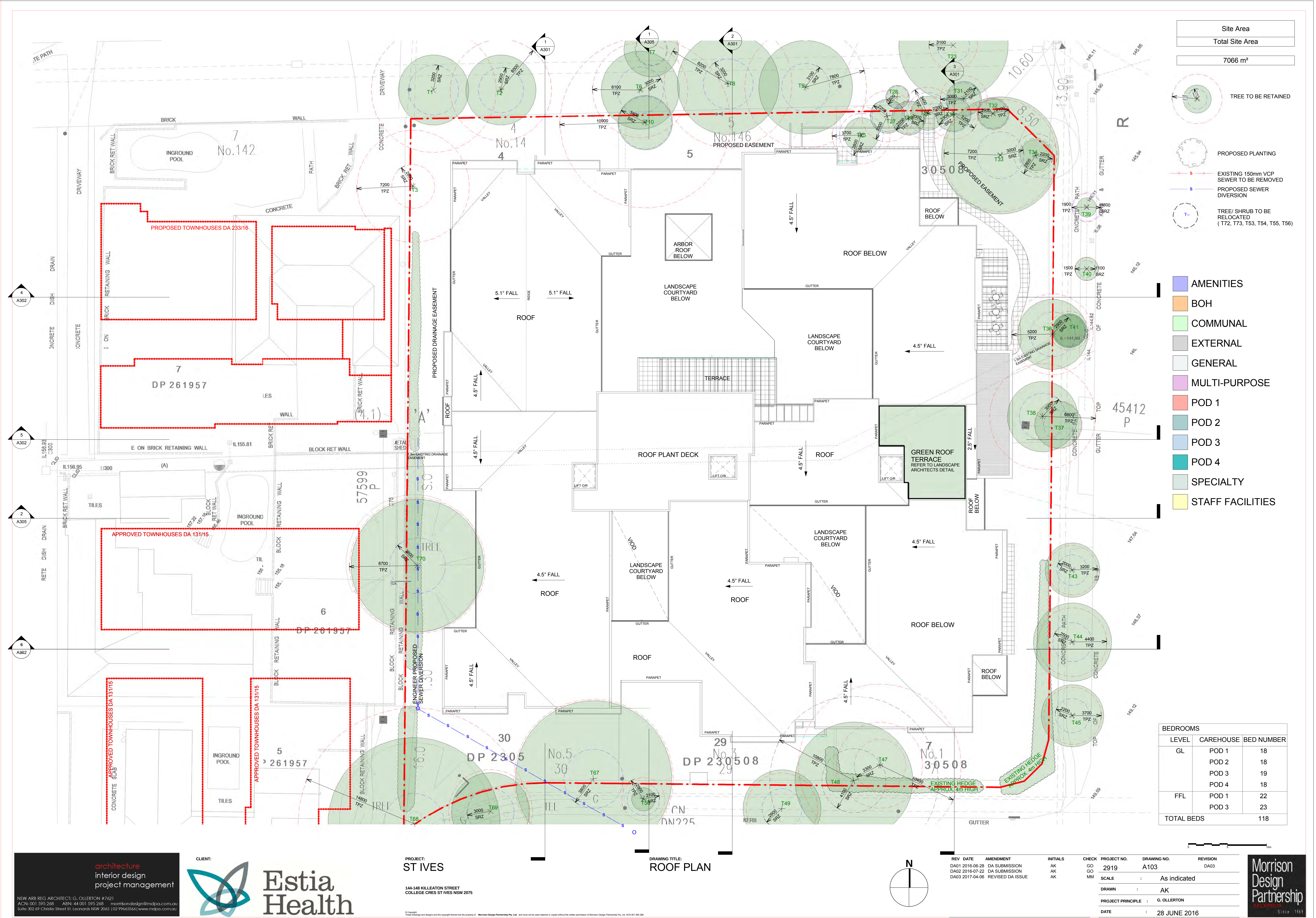


Site Area
Total Site Area
7066 m ²

- TREE TO BE RETAINED
- PROPOSED PLANTING
- EXISTING 150mm VCP SEWER TO BE REMOVED
- PROPOSED SEWER DIVERSION
- TREE/ SHRUB TO BE RELOCATED (T72, T73, T53, T54, T55, T56)

- AMENITIES
- BOH
- COMMUNAL
- EXTERNAL
- GENERAL
- MULTI-PURPOSE
- POD 1
- POD 2
- POD 3
- POD 4
- SPECIALTY
- STAFF FACILITIES

BEDROOMS		
LEVEL	CAREHOUSE	BED NUMBER
GL	POD 1	18
	POD 2	18
	POD 3	19
	POD 4	18
FFL	POD 1	22
	POD 3	23
TOTAL BEDS		118



Site Area

Total Site Area

7066 m²

TREE TO BE RETAINED

PROPOSED PLANTING

EXISTING 150mm VCP
SEWER TO BE REMOVED

PROPOSED SEWER
DIVERSION

TREE/ SHRUB TO BE
RELOCATED
(T72, T73, T53, T54, T55, T56)

AMENITIES

BOH

COMMUNAL

EXTERNAL

GENERAL

MULTI-PURPOSE

POD 1

POD 2

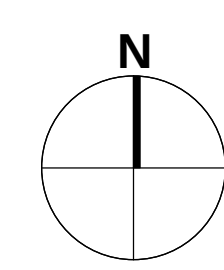
POD 3

POD 4

SPECIALTY

STAFF FACILITIES

BEDROOMS		
LEVEL	CAREHOUSE	BED NUMBER
GL	POD 1	18
	POD 2	18
	POD 3	19
	POD 4	18
FFL	POD 1	22
	POD 3	23
TOTAL BEDS		118



REV	DATE	AMENDMENT	INITIALS	CHECK	PROJECT NO.	DRAWING NO.	REVISION
DA01	2016-06-28	DA SUBMISSION	AK	GO	2919	A103	DA03
DA02	2016-07-22	DA SUBMISSION	AK	GO			
DA03	2017-04-06	REVISED DA ISSUE	AK	MM			
SCALE :					As indicated		
DRAWN :					AK		
PROJECT PRINCIPLE :					G. OLLERTON		
DATE :					28 JUNE 2016		



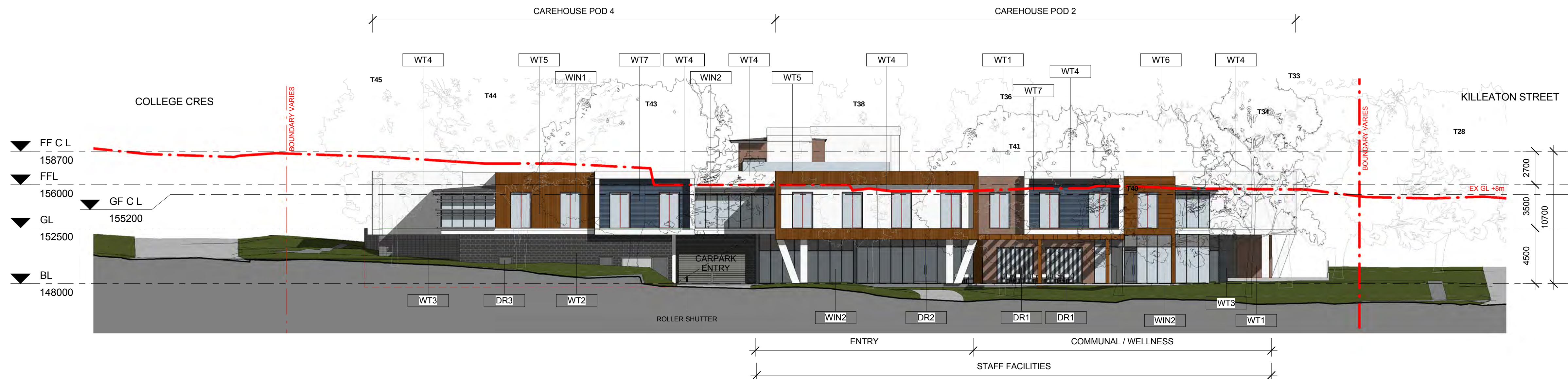
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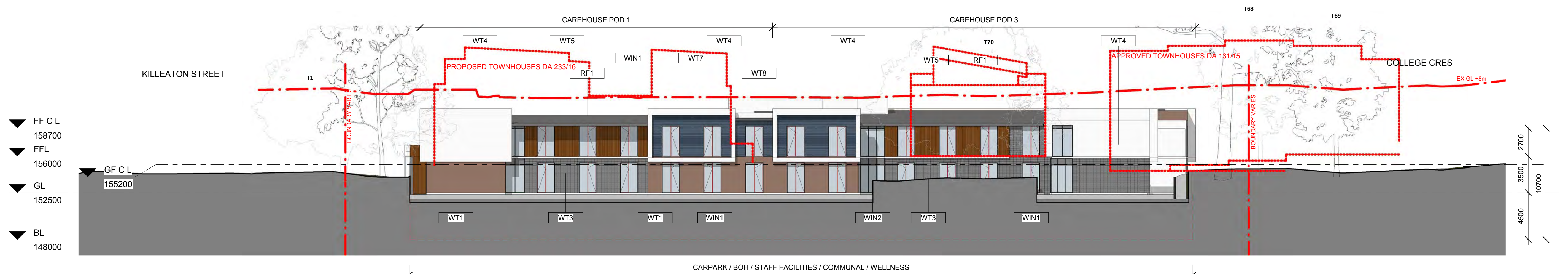


2 EAST ELEVATION - YARRABUNG ROAD
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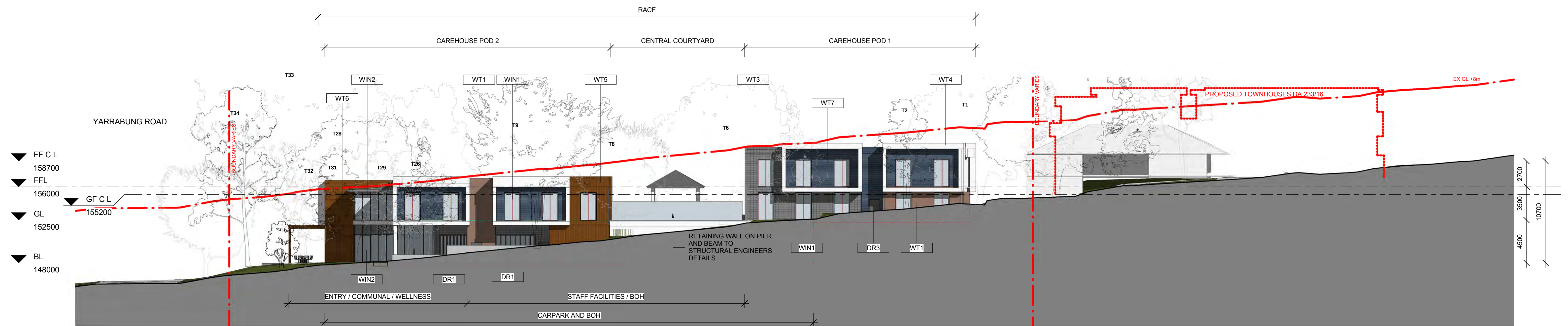
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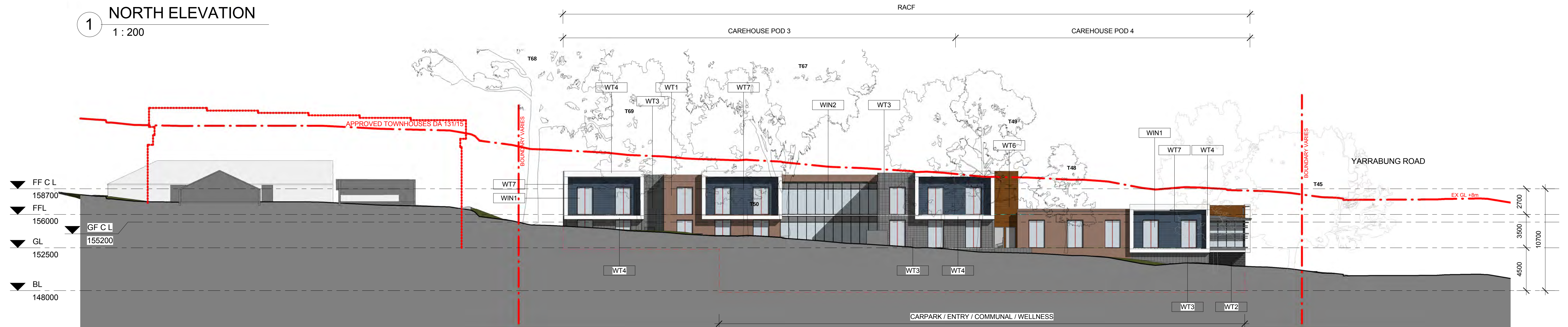
2 WEST ELEVATION
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Material Legend	
Key Value	Keynote Text
BAL1	ALUMINIUM FRAMED GLASS BALUSTRADE - COLOUR: CLEAR
BAL2	SOLID BALUSTRADE WALL - PAINTED WHITE
DR1	ALUMINIUM GLAZED OPERABLE DOOR SUITE. CLEAR GLASS
DR2	ALUMINIUM GLAZED FIXED DOOR SUITE. CLEAR GLASS
DR3	ALUMINIUM SOLID CORE DOOR. COLOUR: DARK GREY
RF1	METAL ROOF. COLORBOND FINISH - COLOUR: LIGHT/ DARK GREY
WIN1	ALUMINIUM FRAMED WINDOW - COLOUR: DARK GREY
WIN2	ALUMINIUM GLAZED WINDOW SUITE. CLEAR AND COLOUR BACK GLASS
WT1	AUSTRAL FACE BRICK
WT2	DESIGNER BLOCK - COLOUR: DARK GREY
WT3	HONED BLOCK WORK AUSTRAL ASPECT - COLOUR: LIGHT GREY
WT4	PANEL ALUMINIUM COMPOSITE PANEL - WHITE
WT5	TIMBER CLADDING - VERTICAL
WT6	TIMBER CLADDING - HORIZONTAL
WT7	WEATHERBOARD CLADDING - HORIZONTAL - BLUE CHARCOAL
WT8	PERFORATED MINIORB



1 NORTH ELEVATION
1 : 200



2 SOUTH ELEVATION
1 : 200



Material Legend	
Key Value	Keynote Text
BAL1	ALUMINIUM FRAMED GLASS BALUSTRADE - COLOUR: CLEAR
BAL2	SOLID BALUSTRADE WALL - PAINTED WHITE
DR1	ALUMINIUM GLAZED OPERABLE DOOR SUITE. CLEAR GLASS
DR2	ALUMINIUM GLAZED FIXED DOOR SUITE. CLEAR GLASS
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WT6	TIMBER CLADDING - HORIZONTAL
WT7	WEATHERBOARD CLADDING - HORIZONTAL - BLUE CHARCOAL
WT8	PERFORATED MINIORB



1 YARRABUNG ROAD STREETSCAPE
ELEVATION @1:200

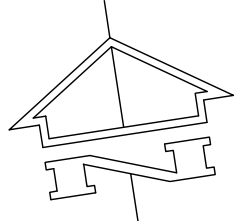


2 KILLEATON ROAD STREETSCAPE
ELEVATION @1:200



3 COLLEGE CRESENT STREETSCAPE
ELEVATION @1:200

NB: EXISTING TREES ARE SHOWN AT CURRENT HEIGHT WHILE PROPOSED PLANTINGS ARE SHOWING AT MATURE SIZE



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STORMWATER DRAINAGE NOTES

- Stormwater Design Criteria :
 - Average recurrence interval -
 - 1:100 years for roof drainage to first external pit
 - 1:20 years for paved and landscaped areas
 - Rainfall intensities
 - Time of concentration: 6 minutes
 - 1:100 years = 250 mm/hr
 - 1:20 years = 196 mm/hr
 - Runoff coefficients -
 - Roof areas: $C_{ro} = 1.0$
 - Roads and paved areas: $C_{ra} = 0.95$
 - Landscaped areas: $C_{la} = 0.60$
- Pipes 300 dia and larger to be reinforced concrete Class "2" approved spigot and socket with rubber ring joints U.N.O.
- Pipes up to 300 dia shall be sewer grade uPVC with solvent welded joints.
- Equivalent strength VCP or FRP pipes may be used subject to approval.
- Precast pits may be used external to the building subject to approval by Engineer.
- Enlargers, connections and junctions to be manufactured fittings where pipes are less than 300 dia.
- Where subsoil drains pass under floor slabs and vehicular pavements, unslotted uPVC sewer grade pipe is to be used.
- Grates and covers shall conform with AS 3996-2006, and AS 1428.1 for access requirements.
- Pipes are to be installed in accordance with AS 3725. All bedding to be type H2 U.N.O.
- Care is to be taken with levels of stormwater lines. Grades shown are not to be reduced without approval.
- All stormwater pipes to be 150 dia at 1.0% min fall U.N.O.
- Subsoil drains to be slotted flexible uPVC U.N.O.
- Adopt invert levels for pipe installation (grades shown are only nominal).

SITEWORKS LEGEND

- Stormwater diversion with pit
- Stormwater line with pit
- Proposed Easement
- Overland flow path

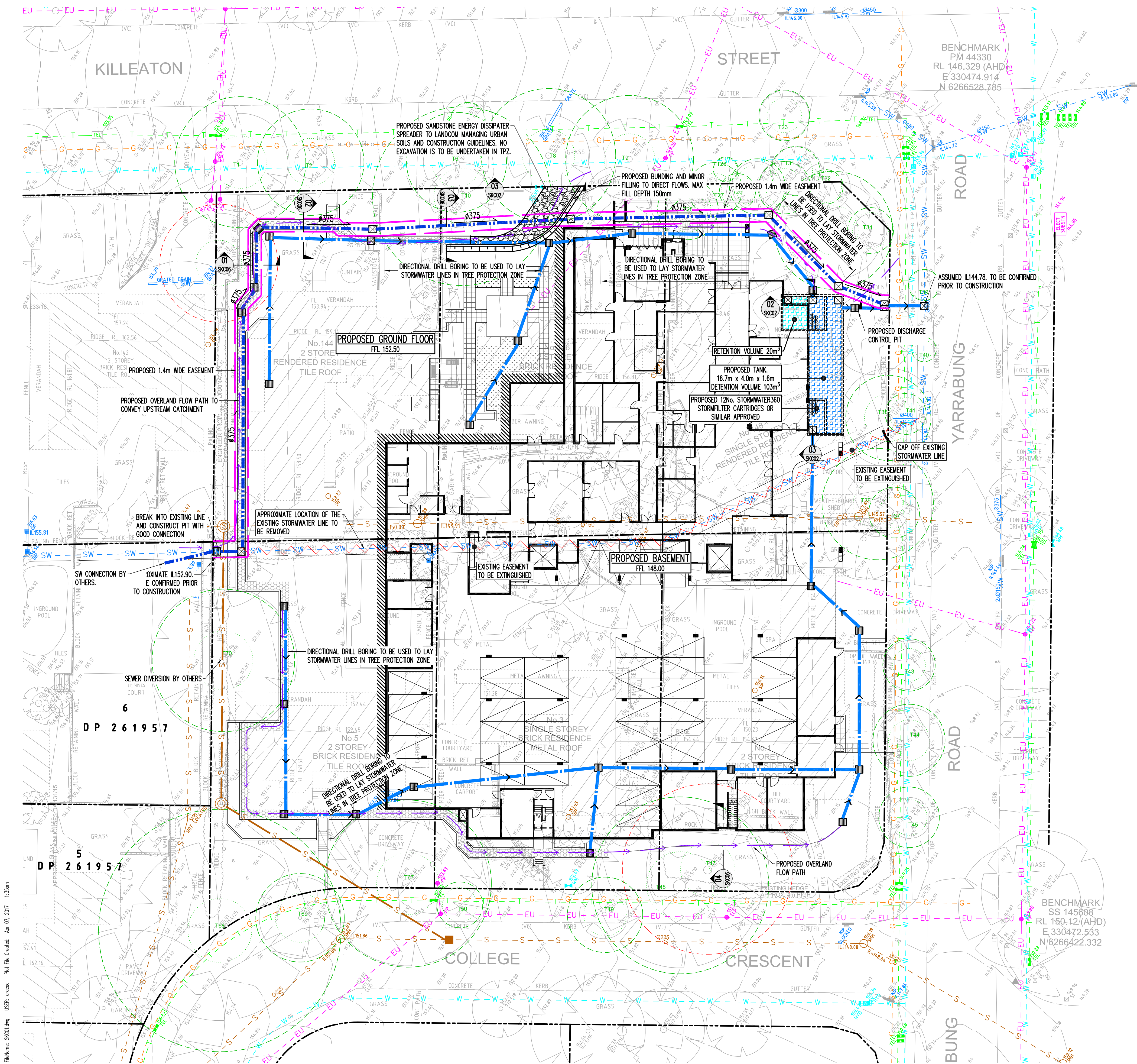
NOTE

100 YEAR ARI STORM EVENT FLOW TO BE DIRECTED TO DETENTION TANK

TREE PROTECTION NOTES

- Refer to Arborist Report prior to commencement of any works on site.
- Trees to be retained and managed throughout the development shall be fenced off from the proposed development or in some situations depending on site access may require trunk protection as detailed in Section 4 - Tree Protection Measures of AS4970 - 2009 The Protection of Trees on Development Sites or in some situation the existing boundary fence shall be retained throughout proposed development so as to provide tree protection barrier.
- Demolition works within the TPZ of trees to be preserved shall be carried out so as to avoid damage to the roots. In sensitive areas manual excavation may be necessary. Manual excavation shall be by hand under the direction of the project arborist.
- Where the project arborist identifies roots to be pruned within or at the outer edge of the TPZ, they should be pruned with a final cut to undamaged wood. Pruning cuts should be made with sharp tools such as secateurs, pruners, hand saws or chainsaws. Pruning wounds should not be treated with dressings or paints. It is totally unacceptable for roots within the TPZ to be 'pruned' with machinery such as backhoes or excavators.
- Where roots within the TPZ are exposed by excavation, temporary root protection should be installed to prevent them drying out. This may include jute mesh or hessian sheeting as multiple layers over exposed roots and excavated soil profile, extending to the full depth of the root zone. Root protection sheeting should be pegged in place and kept moist during the period that the root zone is exposed.
- All areas enclosed by protective fencing must have the entire ground surface mulched to a depth of 100 mm with composted Eucalyptus leaf and woodchip to help retain soil moisture and reduce erosion.
- Any site activity close to or beneath the drip line of Trees 10, 47 and 70 shall have elevated protection installed clear of the ground to avoid compaction and damage to roots. Protection may comprise timber planks or metal decking supported on scaffolding or the like.
- Hydraulic plans have provided by the applicant indicate that sub soil stormwater and sewer lines may need to be installed within the TPZ of trees nominated for preservation. Trenching for stormwater / sewer installation within the TPZ and SRZ shall be avoided. Adopt directional drilling / approved under boring techniques as per Section 4 of AS4970 CL4.4.5 to avoid adverse impacts on tree roots.
- The directional drilling bore should be at least 600 mm deep. The project arborist shall assess the likely impacts of boring and bore pits on retained trees. Bore pits within the TPZ shall be hand dug under the direction of an Arborist. No excavation shall occur within the Structural Root Zones of trees nominated for preservation.

PRELIMINARY



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P5	ISSUED FOR DA	PY	PK	30.06.16	P11	ISSUED FOR DA	PY	PK	22.07.16
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P3	ISSUED FOR DA	PY	PK	24.06.16	P9	ISSUED FOR COORDINATION	PY	PK	21.07.16
P2	ISSUED FOR COORDINATION	PY	PK	24.06.16	P8	ISSUED FOR COORDINATION	PY	PK	11.07.16
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Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date

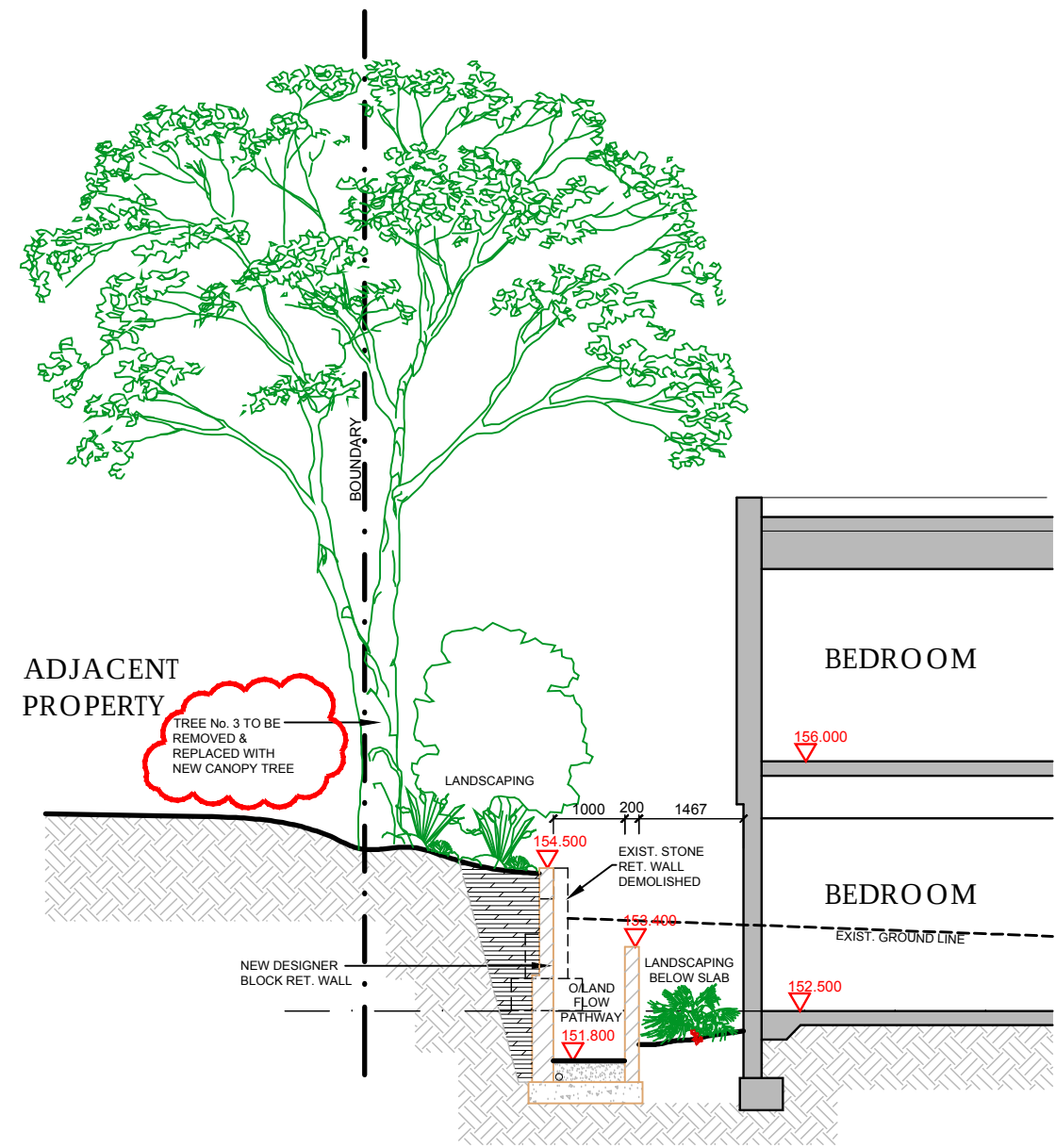
Architect
Morrison Design Partnership
302/69 Christie Street,
St Leonards, NSW 2065
E: morrisondesign@mdpa.com.au
P: 02 9966 5566

Structural Engineer
TTW Taylor Thomson Whitting
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

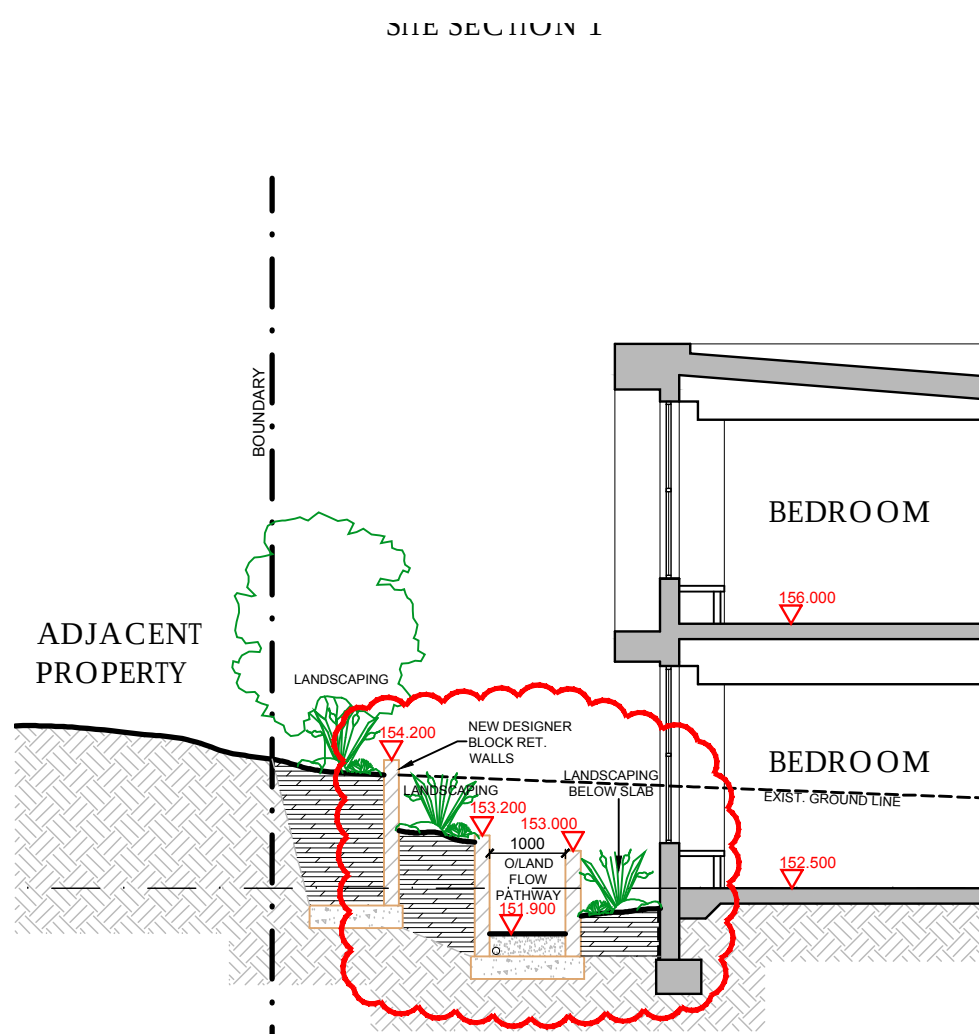
Project
ESTIA HEALTH DEVELOPMENT
144 Killeaton Street St Ives

Sheet Subject
STORMWATER PLAN

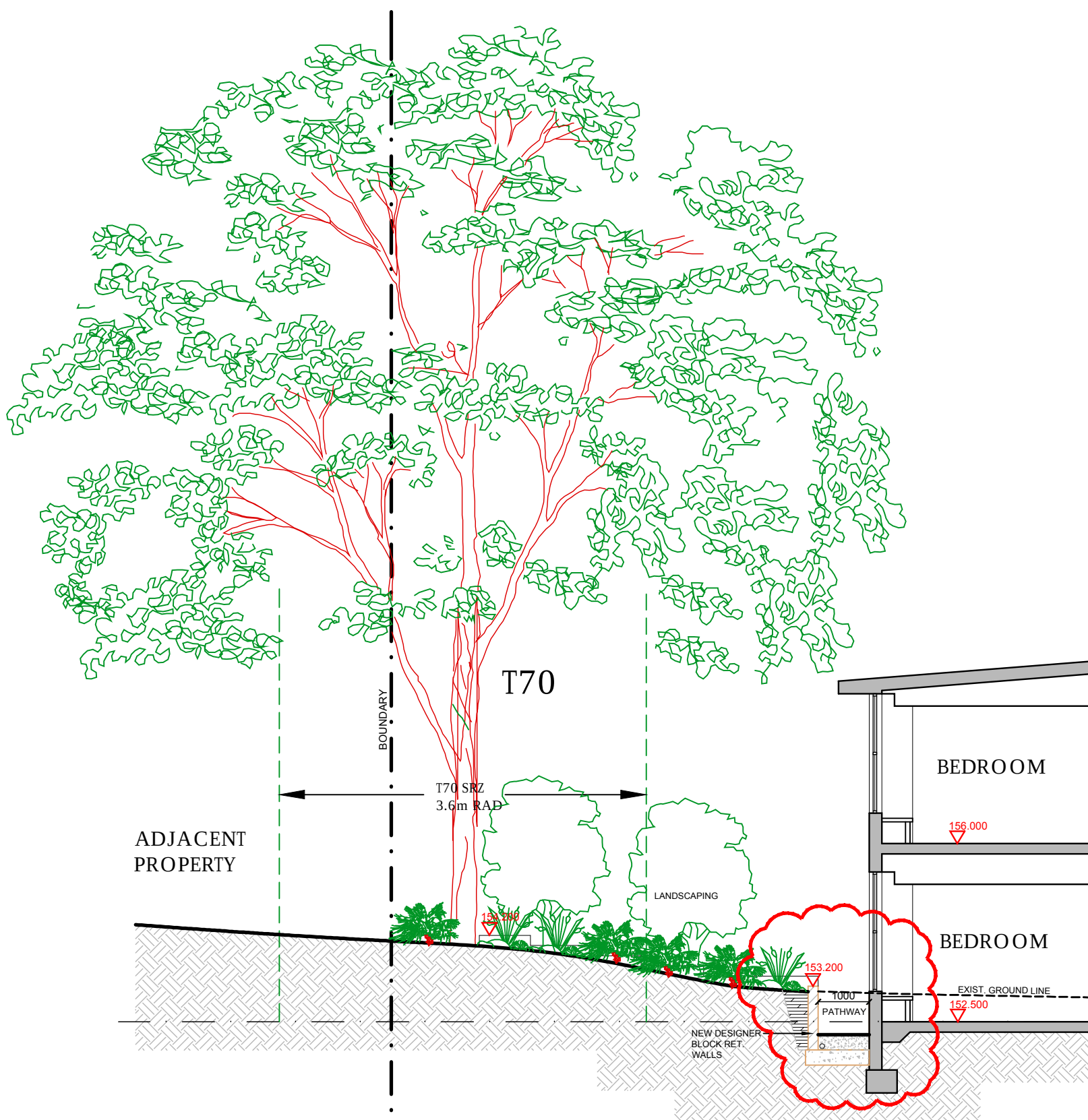
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Revision



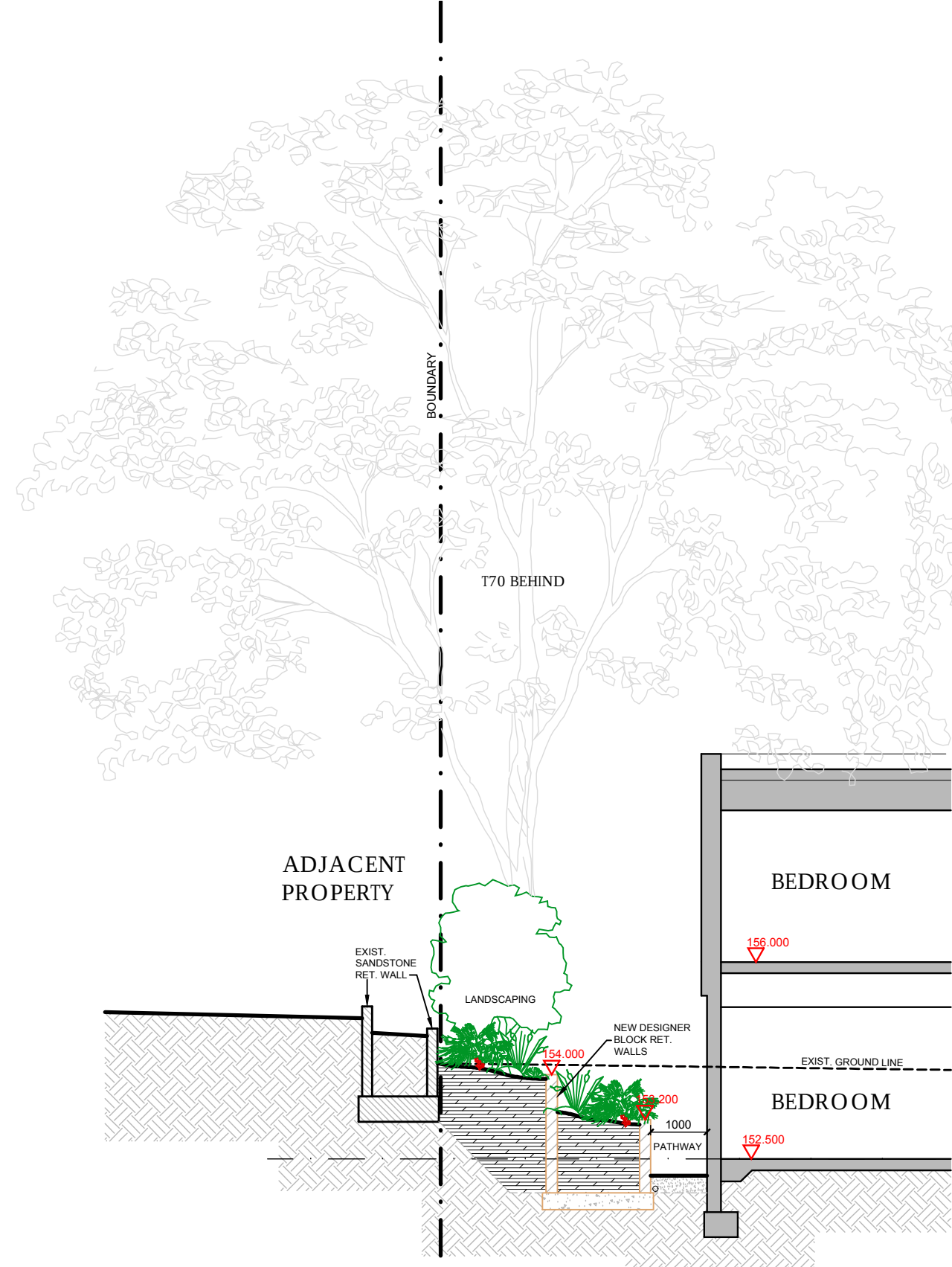
SITE SECTION 1



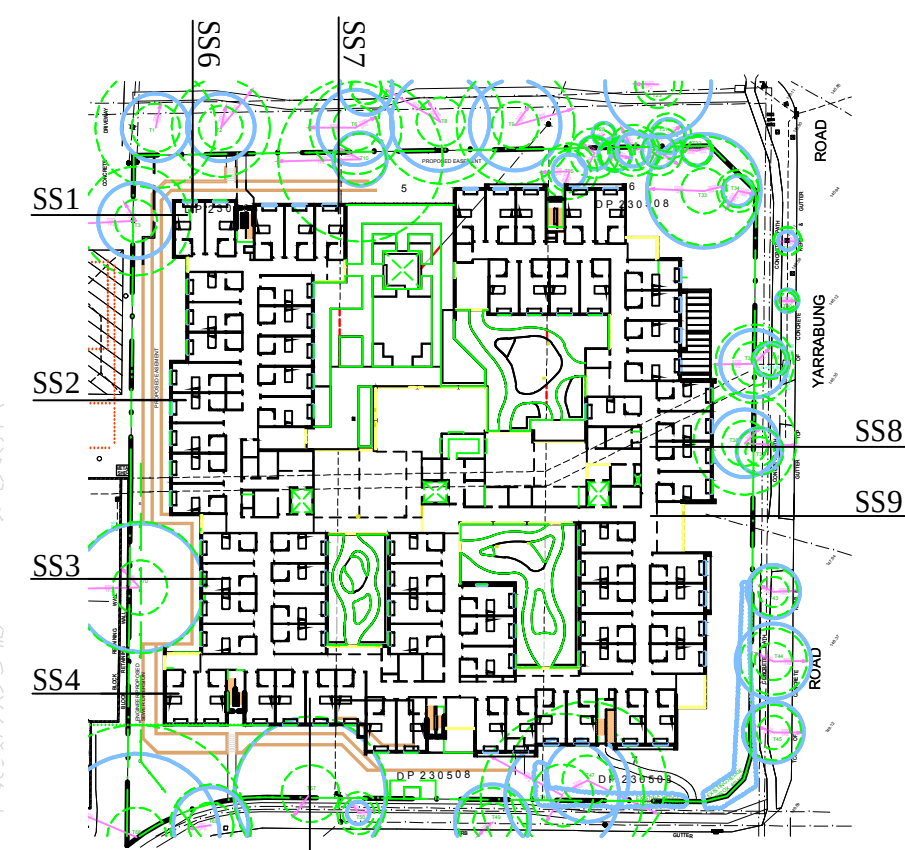
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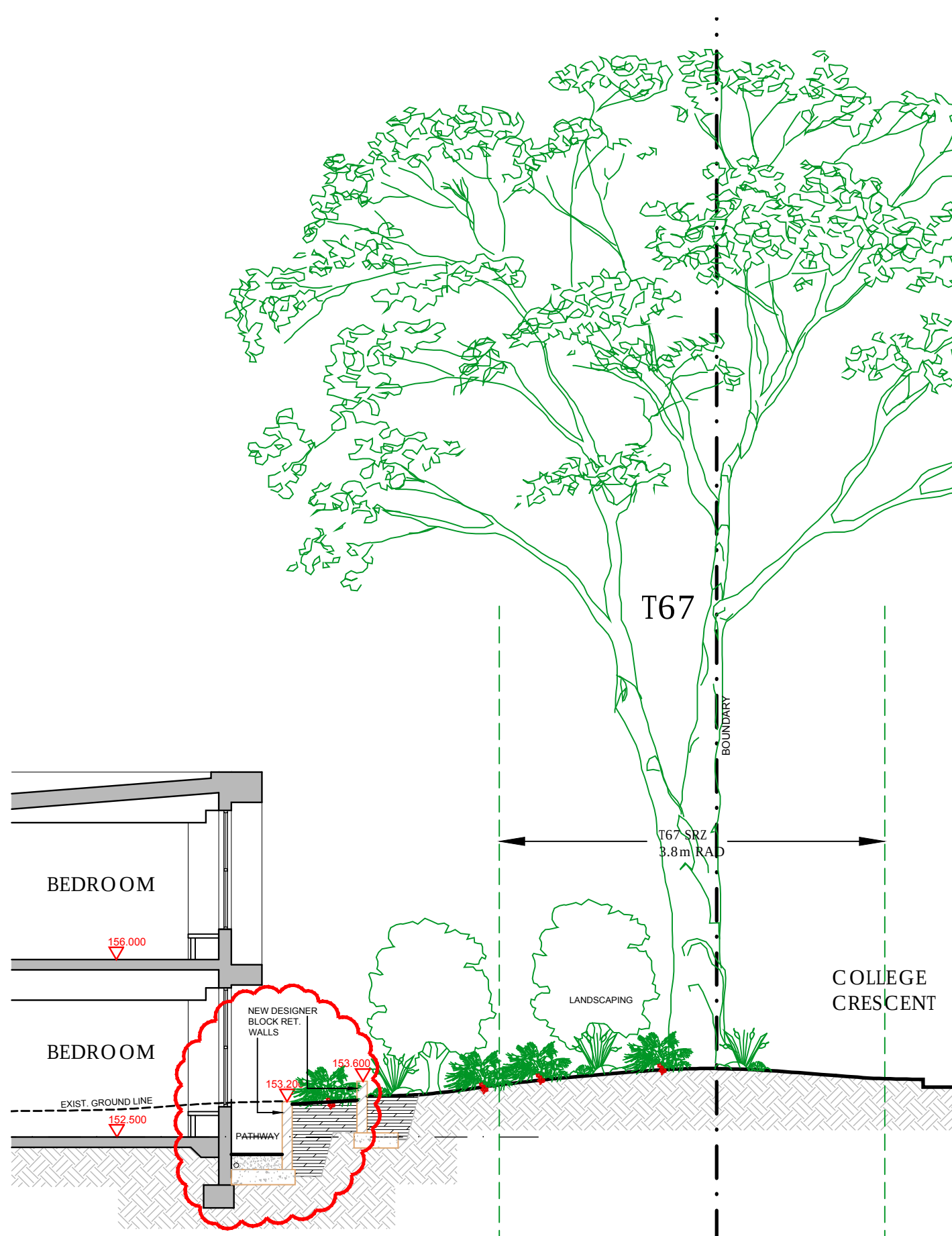
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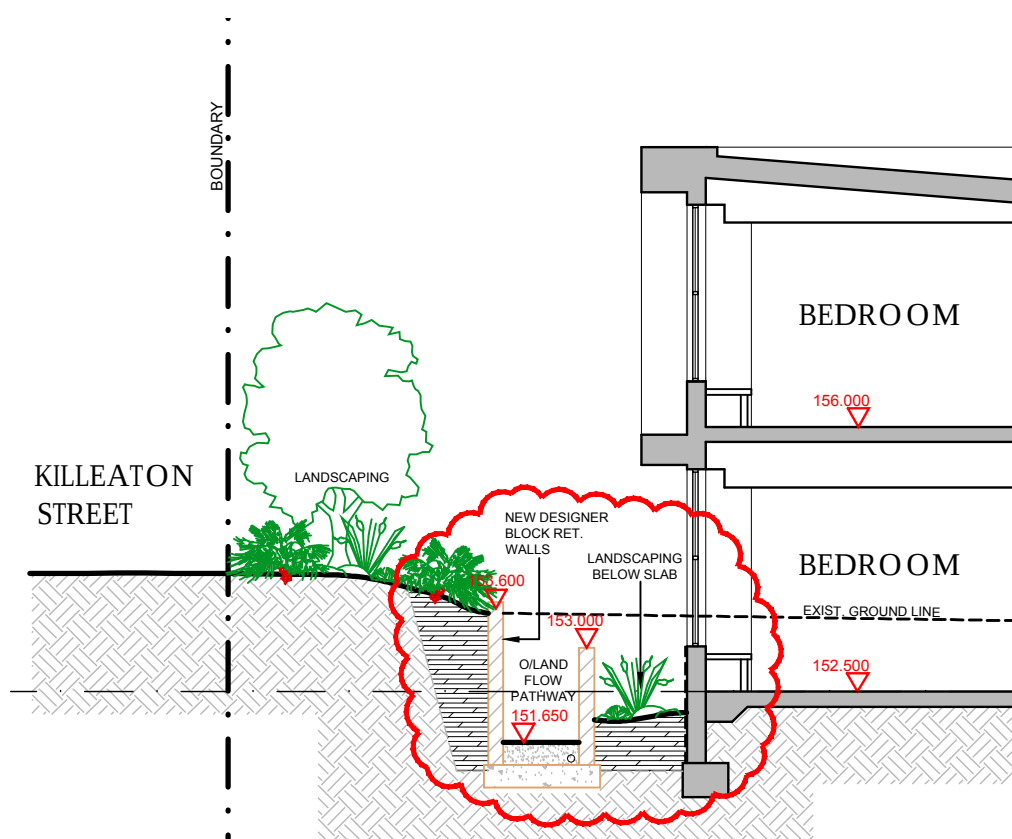
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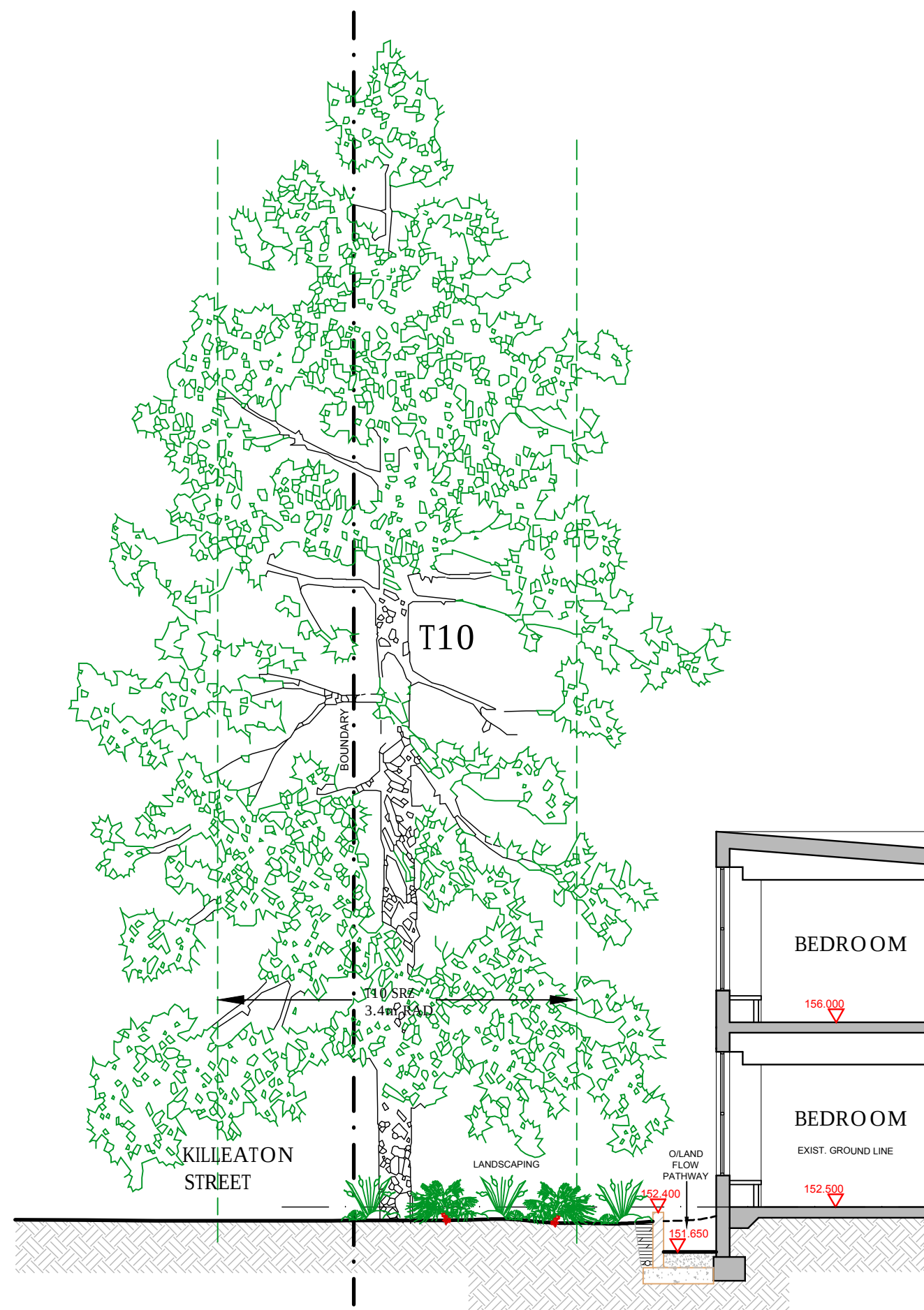
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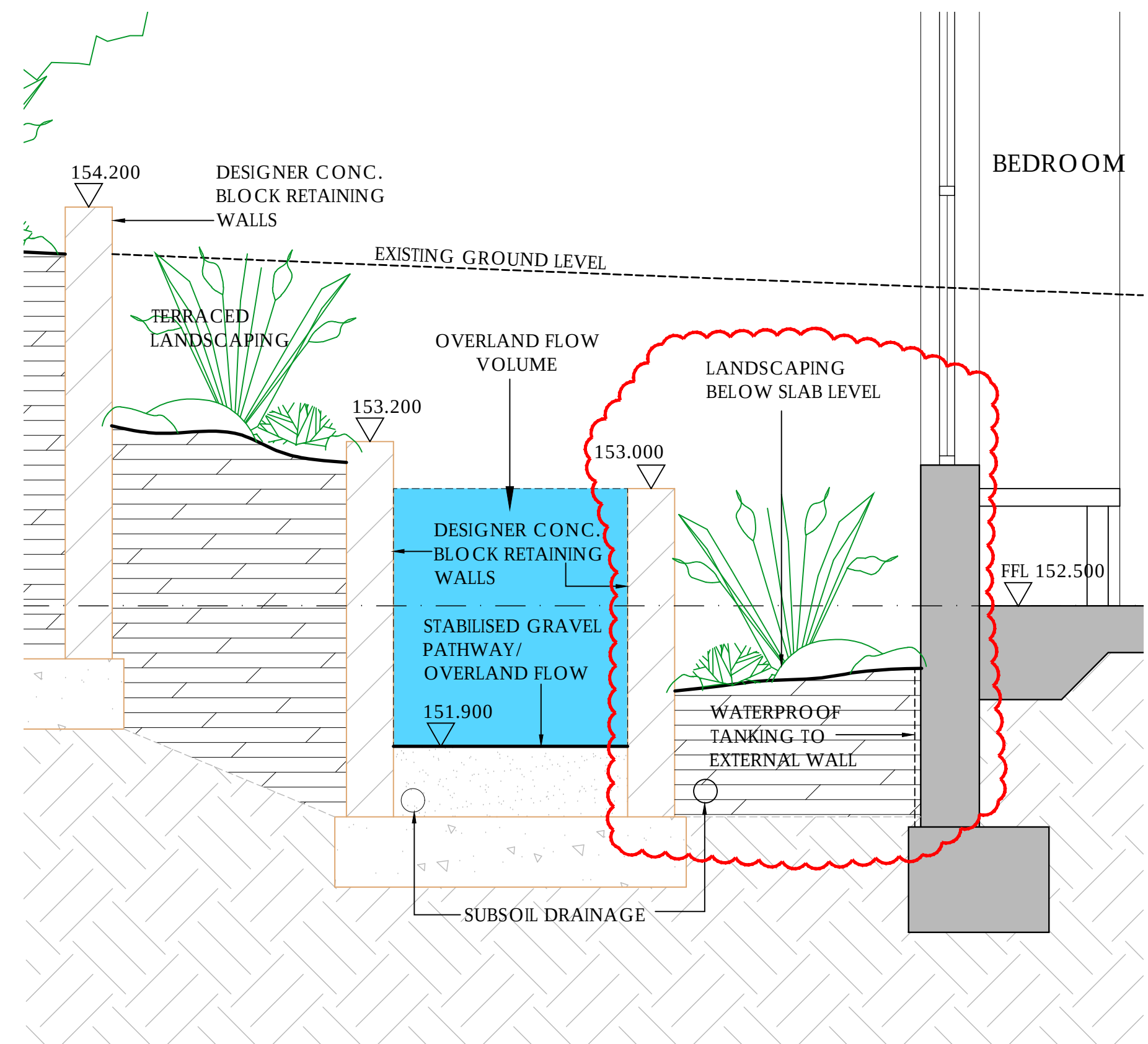
SITE SECTION 5



SITE SECTION 6

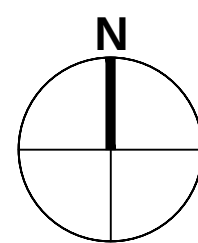
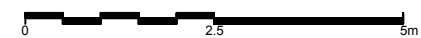


SITE SECTION 7



DETAIL SECTION

Scale 1:20



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DA-01	2016-06-28	ISSUED FOR DA	MPM	
DA-02	2016-07-07	REVISED DA ISSUE	MPM	
DA-03	2016-07-22	DA SUBMISSION	MPM	
DA-04	2017-04-06	AMENDED DA SUBMISSION	MPM	

PROJECT NO.	DRAWING NO.	REVISION
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SCALE	1:100	
DRAWN	MPM	
PROJECT PRINCIPLE	G. OLLERTON	
DATE	22 JUNE 2016	



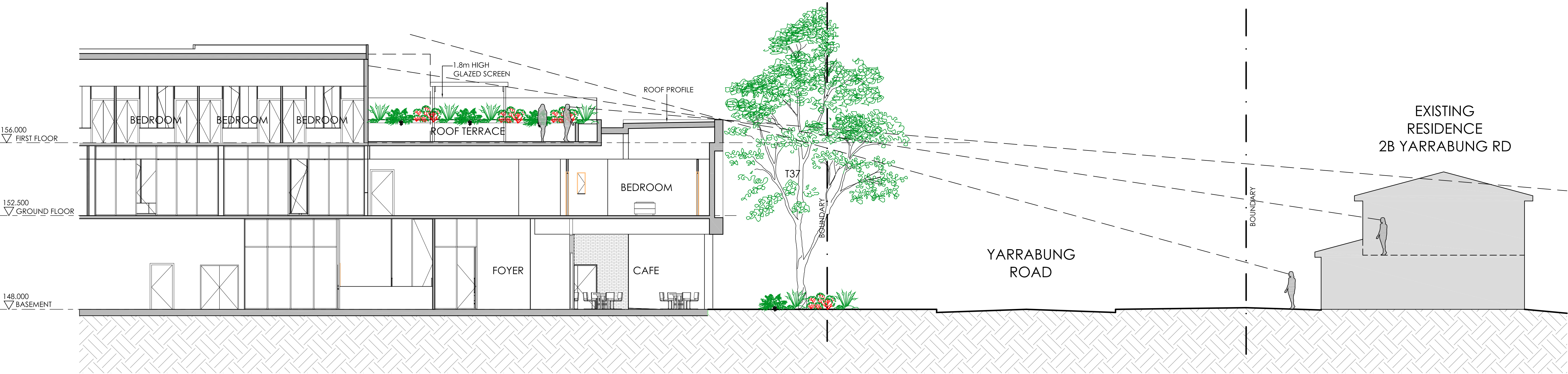
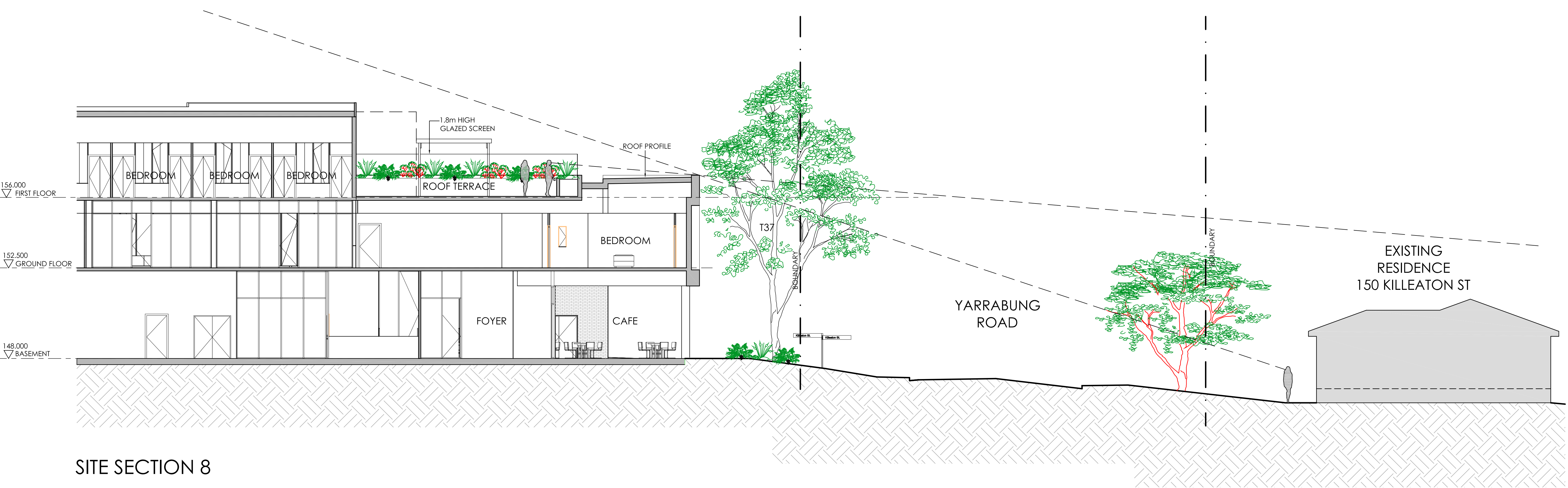
architecture
interior design
project management

NSW ARB REG ARCHITECT: G. OLLERTON #7621
ACN: 001 595 268 ABN: 44 001 595 268 mormondesign@mdp.a.com.au
Suite 302 69 Christie Street St. Leonards NSW 2065 | 02 99665566 | www.mdp.a.com.au

PROJECT:
ST IVES
144-148 KILLEATON STREET
COLLEGE CRES ST IVES NSW 2075

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SITE SECTIONS

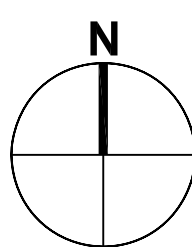


CLIENT:

PROJECT:
ST IVES
144-148 KILLEATON STREET
COLLEGE CRES ST IVES NSW 2075

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DRAWING TITLE:
SITE SECTIONS
SHEET 2



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DA02	2016-07-22	DA SUBMISSION	MPM	

PROJECT NO.	DRAWING NO.	REVISION
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SCALE	: 1:100	
DRAWN	: MPM	
PROJECT PRINCIPLE	: G. OLLERTON	
DATE	: 22 JUNE 2016	