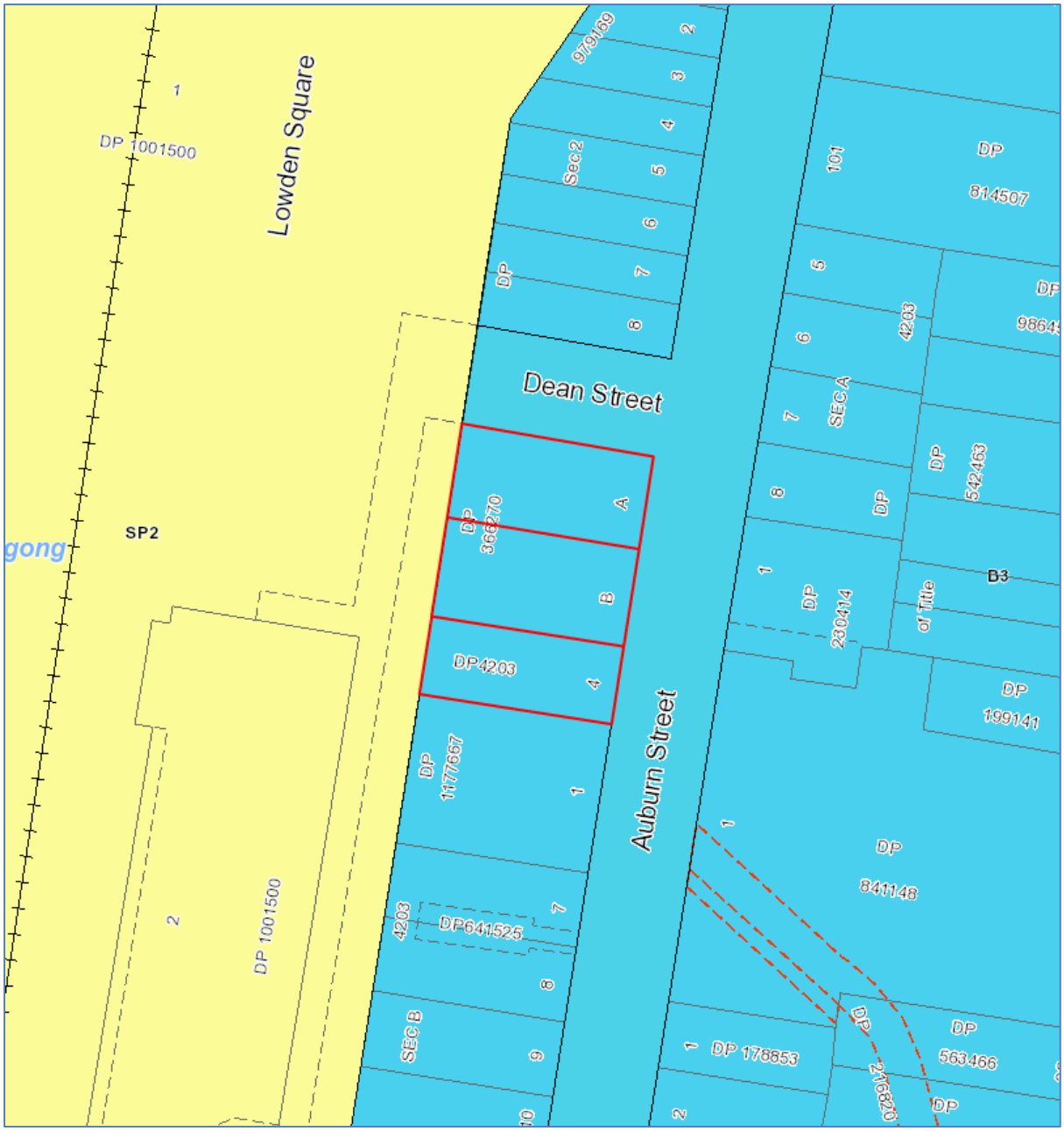
Attachment 1 – Aerial Photograph/Location Map

Attachment 2 – Wollongong Local Environmental Plan 2009



BASIX COMMITMENTS NOTES

* TO BE READ IN CONJUNCTION WITH APPROVED BASIX / ABSA REPORTS*

WATER	Dwellings	
Fixtures & Appliances (Dwellings)	All Showerheads	3 Star (> 6.0 < = 7.5L/min)
	All Toilet Flushing Systems	4 Star
	All Kitchen Taps	5 Star
	All Bathroom Taps	5 Star
	All Dishwashers	3 Star
Planting (Common Areas)	**Species** Use of indigenous or low water use species of vegetation - refer to landscape drawings	
Central Systems/ Facilities	**Central Water Tank (rainwater)** Size 2000L to collect run off from at least 100square meters of roof area of buildings in the development to allow for irrigation of 700m2 of common landscaped area on site 0 car washing in 0 car washing bay on site	
ENERGY	**Central Energy Systems:** - Central Hot Water System - gas - fired boiler with piping insulation and piping internal to building; RC,0 (325mm) - Lift (No1); gearless traction with VVVF Motor - Lift (No2); gearless traction with VVVF motor	
REFER TO APPROVED BASIX	**Hot Water System (dwellings):** - Central hot water system see above **Lift Systems:** - Gearless traction with VVVF Motor	
Fixtures & Appliances (Dwellings)	All Kitchen cooktop & ovens	Gas cooktop & electric oven
	All Refrigerators	2 Star (new rating)
	All Dishwashers	3,5 Star
	All Clothes Dryers	1,5 Star
THERMAL COMFORT	- Roof - Metal/ concrete, insulation R1,0 medium Colour - Ceilings - plasterboard, no insulation - External Walls - Concrete 150mm + R1,5 insulation. Medium colour - Internal Walls - Plasterboard, insulation R0,0 - Floors - Concrete, insulation none	

APARTMENT CALCULATIONS

UNIT No.	GFA	No. of BEDROOMS	BALCONY AREA m2	STORAGE *UNIT m3
UNIT 3.01	50m²	1 BEDROOM	8m²	3.2m³
UNIT 3.02	50m²	1 BEDROOM	8m²	3.2m³
UNIT 3.03	71m²	2 BEDROOM	29m²	4.0m³
UNIT 4.01	70m²	1 BED + STUDY	18m²	8.0m³
UNIT 4.02	81m²	2 BEDROOM	25m²	6.0m³
UNIT 4.03	50m²	1 BEDROOM	23m²	3.2m³
UNIT 4.04	50m²	1 BEDROOM	23m²	3.2m³
UNIT 4.05	50m²	1 BEDROOM	8m²	3.2m³
UNIT 4.06	50m²	1 BEDROOM	8m²	3.2m³
UNIT 4.07	50m²	1 BEDROOM	8m²	3.2m³
UNIT 4.08	56m²	1 BEDROOM	8m²	5.0m³
UNIT 4.09	50m²	1 BEDROOM	8m²	3.2m³
UNIT 4.10	50m²	1 BEDROOM	8m²	3.2m³
UNIT 4.11	50m²	1 BEDROOM	8m²	3.2m³
UNIT 4.12	71m²	2 BEDROOM	29m²	4.0m³
UNIT 5.01	70m²	1 BED + STUDY	18m²	8.0m³
UNIT 5.02	81m²	2 BEDROOM	25m²	6.0m³
UNIT 5.03	50m²	1 BEDROOM	23m²	3.2m³
UNIT 5.04	50m²	1 BEDROOM	23m²	3.2m³
UNIT 5.05	50m²	1 BEDROOM	8m²	3.2m³
UNIT 5.06	50m²	1 BEDROOM	8m²	3.2m³
UNIT 5.07	50m²	1 BEDROOM	8m²	3.2m³
UNIT 5.08	56m²	1 BEDROOM	8m²	5.0m³
UNIT 5.09	50m²	1 BEDROOM	8m²	3.2m³
UNIT 5.10	50m²	1 BEDROOM	8m²	3.2m³
UNIT 5.11	50m²	1 BEDROOM	8m²	3.2m³
UNIT 5.12	71m²	2 BEDROOM	29m²	4.0m³
UNIT 6.01	70m²	1 BED + STUDY	18m²	8.0m³
UNIT 6.02	81m²	2 BEDROOM	25m²	6.0m³
UNIT 6.03	50m²	1 BEDROOM	23m²	3.2m³
UNIT 6.04	50m²	1 BEDROOM	23m²	3.2m³
UNIT 6.05	50m²	1 BEDROOM	8m²	3.2m³
UNIT 6.06	50m²	1 BEDROOM	8m²	3.2m³
UNIT 6.07	50m²	1 BEDROOM	8m²	3.2m³
UNIT 6.08	56m²	1 BEDROOM	8m²	5.0m³
UNIT 6.09	50m²	1 BEDROOM	8m²	3.2m³
UNIT 6.10	50m²	1 BEDROOM	8m²	3.2m³
UNIT 6.11	50m²	1 BEDROOM	8m²	3.2m³
UNIT 6.12	71m²	2 BEDROOM	29m²	4.0m³
UNIT 8.01	80m²	2 BEDROOM	17m²	7.0m³
UNIT 8.02	80m²	2 BEDROOM	54m²	8.0m³
UNIT 8.03	83m²	2 BEDROOM	14m²	6.0m³
UNIT 8.04	55m²	1 BEDROOM	24m²	4.0m³
UNIT 8.05	55m²	1 BEDROOM	21m²	4.0m³
UNIT 8.06	80m²	2 BEDROOM	28m²	4.0m³
UNIT 9.01	80m²	2 BEDROOM	17m²	7.0m³
UNIT 9.02	80m²	2 BEDROOM	54m²	8.0m³
UNIT 9.03	83m²	2 BEDROOM	14m²	6.0m³
UNIT 9.04	55m²	1 BEDROOM	24m²	4.0m³
UNIT 9.05	55m²	1 BEDROOM	21m²	4.0m³
UNIT 9.06	80m²	2 BEDROOM	28m²	4.0m³
UNIT 10.01	80m²	2 BEDROOM	17m²	7.0m³
UNIT 10.02	80m²	2 BEDROOM	54m²	8.0m³
UNIT 10.03	83m²	2 BEDROOM	14m²	6.0m³
UNIT 10.04	55m²	1 BEDROOM	24m²	4.0m³
UNIT 10.05	55m²	1 BEDROOM	21m²	4.0m³
UNIT 10.06	80m²	2 BEDROOM	28m²	4.0m³
UNIT 11.01	80m²	2 BEDROOM	17m²	7.0m³
UNIT 11.02	80m²	2 BEDROOM	54m²	8.0m³
UNIT 11.03	83m²	2 BEDROOM	14m²	6.0m³
UNIT 11.04	55m²	1 BEDROOM	24m²	4.0m³
UNIT 11.05	55m²	1 BEDROOM	21m²	4.0m³
UNIT 11.06	80m²	2 BEDROOM	28m²	4.0m³
UNIT 12.01	80m²	2 BEDROOM	17m²	7.0m³
UNIT 12.02	80m²	2 BEDROOM	54m²	8.0m³
UNIT 12.03	83m²	2 BEDROOM	14m²	6.0m³
UNIT 12.04	55m²	1 BEDROOM	24m²	4.0m³
UNIT 12.05	55m²	1 BEDROOM	21m²	4.0m³
UNIT 12.06	80m²	2 BEDROOM	28m²	4.0m³
UNIT 13.01	80m²	2 BEDROOM	17m²	7.0m³
UNIT 13.02	80m²	2 BEDROOM	54m²	8.0m³
UNIT 13.03	83m²	2 BEDROOM	14m²	6.0m³
UNIT 13.04	55m²	1 BEDROOM	24m²	4.0m³
UNIT 13.05	55m²	1 BEDROOM	21m²	4.0m³
UNIT 13.06	80m²	2 BEDROOM	28m²	4.0m³
UNIT 14.01	80m²	2 BEDROOM	17m²	7.0m³
UNIT 14.02	80m²	2 BEDROOM	54m²	8.0m³
UNIT 14.03	83m²	2 BEDROOM	14m²	6.0m³
UNIT 14.04	55m²	1 BEDROOM	24m²	4.0m³
UNIT 14.05	55m²	1 BEDROOM	21m²	4.0m³
UNIT 14.06	60m²	1 BEDROOM	47m²	6.0m³
UNIT 15.01	117m²	3 BEDROOM	38m²	11m³
UNIT 15.02	100m²	3 BEDROOM	43m²	11m³
UNIT 15.03	104m²	3 BEDROOM	38m²	6.0m³
UNIT 16.01	117m²	3 BEDROOM	38m²	11m³
UNIT 16.02	100m²	3 BEDROOM	43m²	11m³
UNIT 16.03	104m²	3 BEDROOM	38m²	6.0m³
UNIT 17.01	100m²	3 BEDROOM	162m²	11m³

* NOTE: Basement storage is provided for 65 units and range from 6 - 12 cubic metres (Refer to DA100). In addition, over bonnet storage units are provided for most of the units in parking bays, hence all units will have sufficient storage volume required under the SEPP 65.

LEGEND - Gross Floor Area

- SITE BOUNDARY
- RETAIL / COMMERCIAL GROSS FLOOR AREA
- RESIDENTIAL GROSS FLOOR AREA
- SOFT LANDSCAPE (DEEP SOIL)
- LANDSCAPE ON STRUCTURE
- ACCESSIBLE CARPARK
- RESIDENTIAL VISITOR PARKING SPACE
- RESIDENTIAL VEHICLE PARKING SPACE
- COMMERCIAL/ RETAIL VISITOR PARKING SPACE
- COMMERCIAL/ RETAIL VEHICLE PARKING SPACE
- MOTORCYCLE PARKING SPACE
- BICYCLE PARKING BAYS

UNIT MIX

STUDIO		
1 BEDROOM	47 UNITS	53%
2 BEDROOM	34 UNITS	40%
3 BEDROOM	7 UNITS	8%
TOTAL	**88 UNITS**	

GROSS FLOOR AREA

GF (Commercial)	**367** SQM
GF (Residential)	**51** SQM
LEVEL 1	**974** SQM
LEVEL 2	**936** SQM
LEVEL 3 (Offices)	**770** SQM
LEVEL 3 (Residential)	**241** SQM
LEVEL 4 - 6	871 SQM X 3 = **2613** SQM
LEVEL 8 - 13	491 SQM X 6 = **2946** SQM
LEVEL 14	**472** SQM
LEVEL 15 -16	364 SQM X 2 = **728** SQM
LEVEL 17	**127** SQM
TOTAL **GFA**	**10245 SQM**

FSR CALCULATION

COMMERCIAL	**3067** SQM 30 %
RESIDENTIAL	**7178** SQM 70 %

COUNCIL FORMULAR FOR FSR

(NRFSR x NR/100)+(RFSR x R/100)

(6X30/100)+ (3.5X70/100) = **1:4.25**

CAR PARKING CALCULATIONS

UNIT	CARPARK	BICYCLE	MOTORCYCLE
RESIDENTIAL			
1 BEDROOM	35	30	6
2 BEDROOM	34		
3 BEDROOM	7		
VISITOR	18	7	
Retail	17	2	1
VISITOR	1	1	
COMMERCIAL	29	9	2
VISITOR	2	3	
TOTAL REQUIRED	**143**	**50**	**9**
TOTAL PROPOSED	**143**	**50**	**9**

SITE CALCULATIONS

SITE AREA	**2171 SQM**
FSR Proposed	**1:4.25**
FSR Control	**1:4.25**
TOTAL LANDSCAPED AREA	**1777** SQM | **81.8%**
DEEP SOIL ZONES	681 SQM | **31.4%**
PLANTING ON STRUCTURE	1096 SQM | **50.4%**

ISSUE	DATE	REVISION
O	8/9/14	Revised issue to Council
F	4/9/14	Revised DA issue to Council

NOTE DO NOT SCALE FROM DRAWING, USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION

PROJECT

Mixed Use Development

ADDRESS

14-18 Auburn Street, Wollongong

CLIENT

ESH Holdings P/L & EB Property P/L

DRAWING

Calculation Sheet

Baker Kavanagh architects

north

PROJECT #	**12040**	DWG # / REV
DATE	May 2014	
SCALE @ A1	**1:500 @ A1**	DA 010 G
DRAWN	NC	CHKD JK

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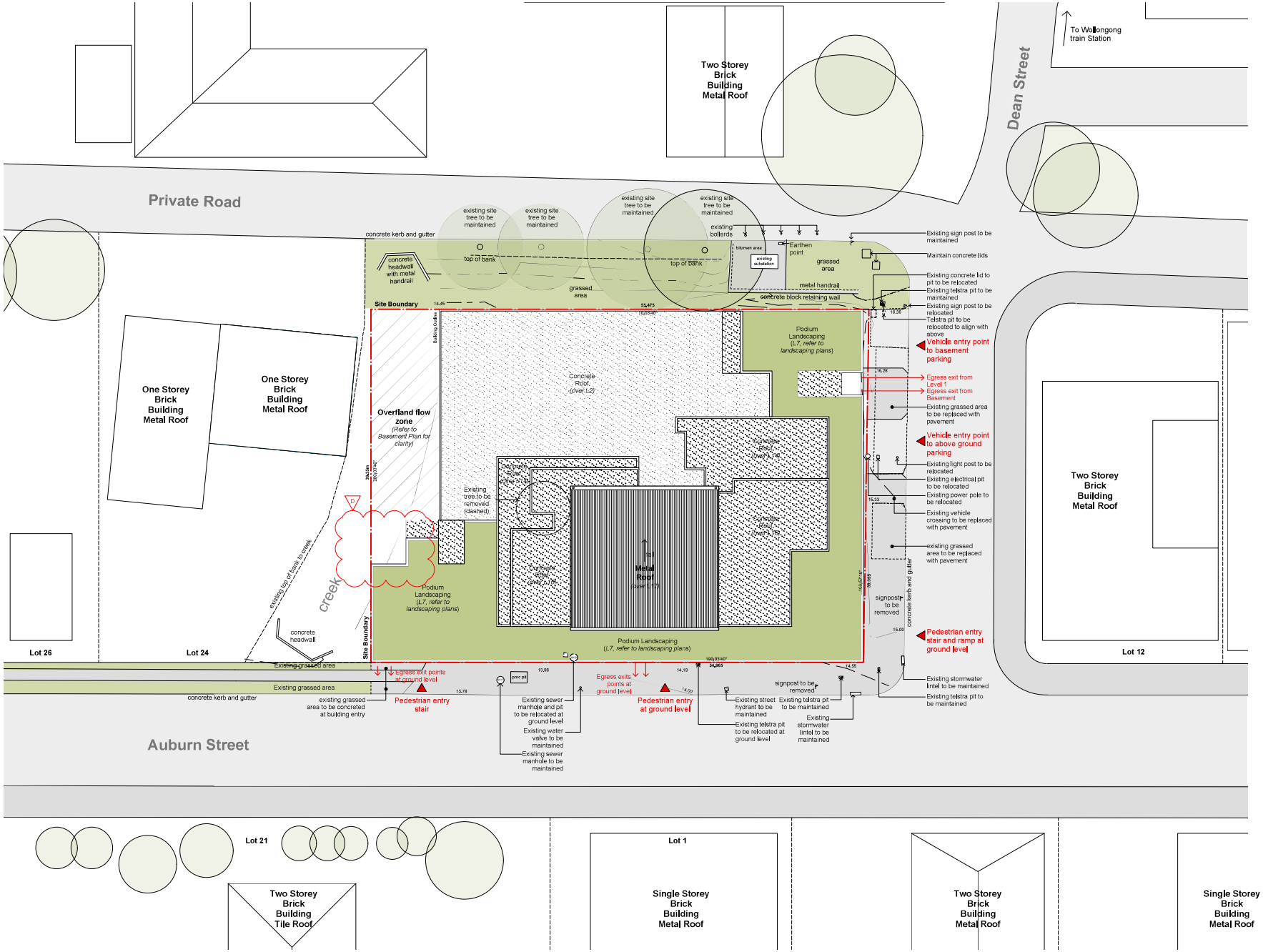

D 4/9/14 Revised DA issue to Council
ISSUE DATE REVISION

NOTE DO NOT SCALE FROM DRAWING, USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
Site Plan / Roof Plan

Baker Kavanagh architects

north

PROJECT # **12040** DWG # REV

DATE May 2014

SCALE @ A1 **1:200@A1** DA 002 D

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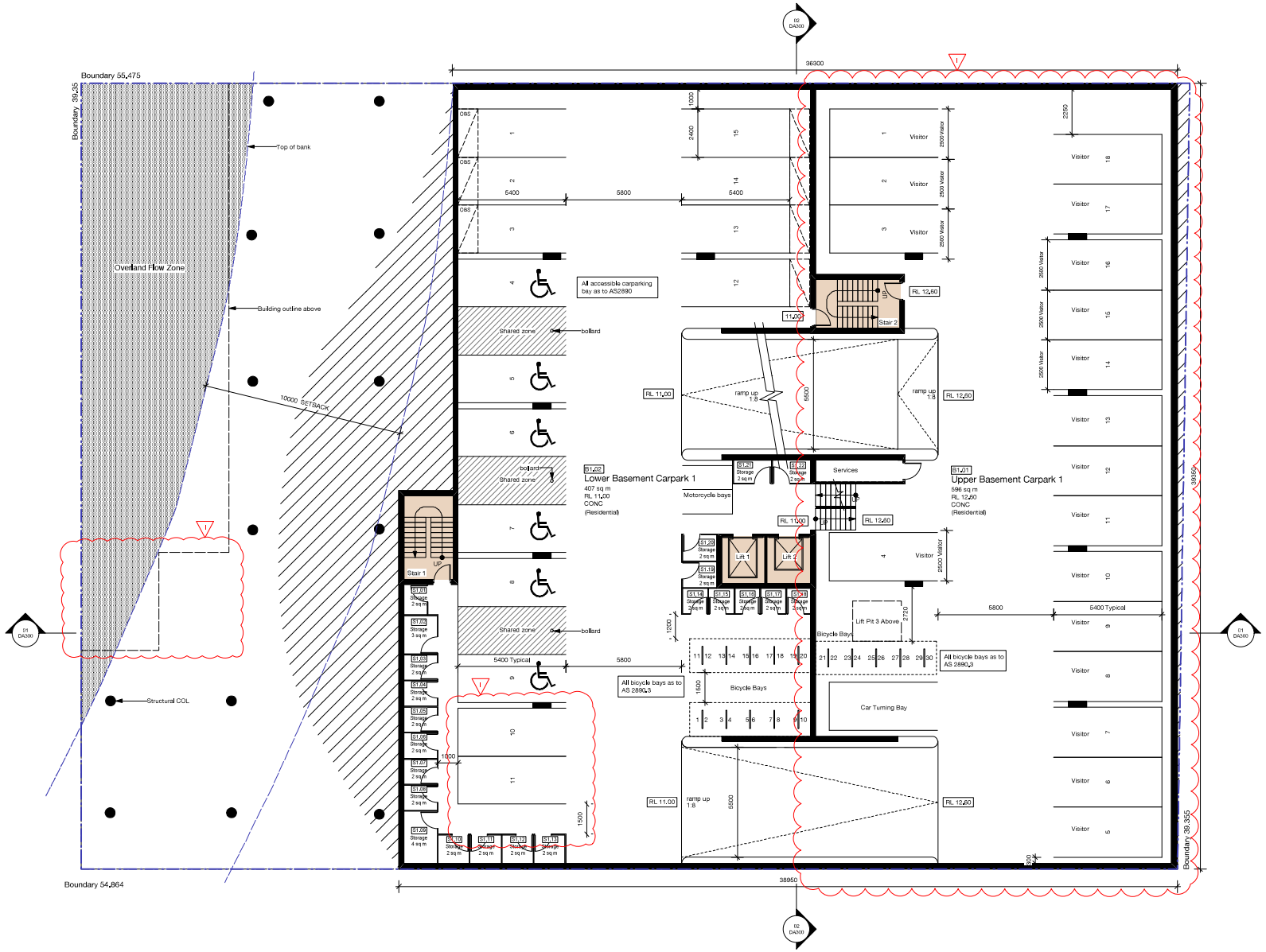

01 Basement Carpark Level 1 Plan
DA102 Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
LVR-3	Fixed Glass Louvre
LVR-4	Fixed Metal Louvre Type 2
MC01	Metal Cladding Type 1
MC02	Metal Cladding Type 2
MW01	Masonary Wall Type 1
MW02	Masonary Wall Type 2
MW03	Masonary Wall Type 3
MW04	Masonary Wall Type 4
MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

Existing trees

Trees to be removed

Over bonnet storage units

0 5 10 M

ISSUE	DATE	REVISION
I	4/5/14	Revised DA issue to Council

NOTE DO NOT SCALE FROM DRAWING, USE FOR DIRECTION AND ENQUIRY ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION.

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
B1 | Basement Carpark

Baker Kavanagh Architects

north

PROJECT # 12040 DWG # REV
DATE May 2014 DA 102 I
SCALE @ A1 1:100 @ A1
DRAWN NC CHKD JK

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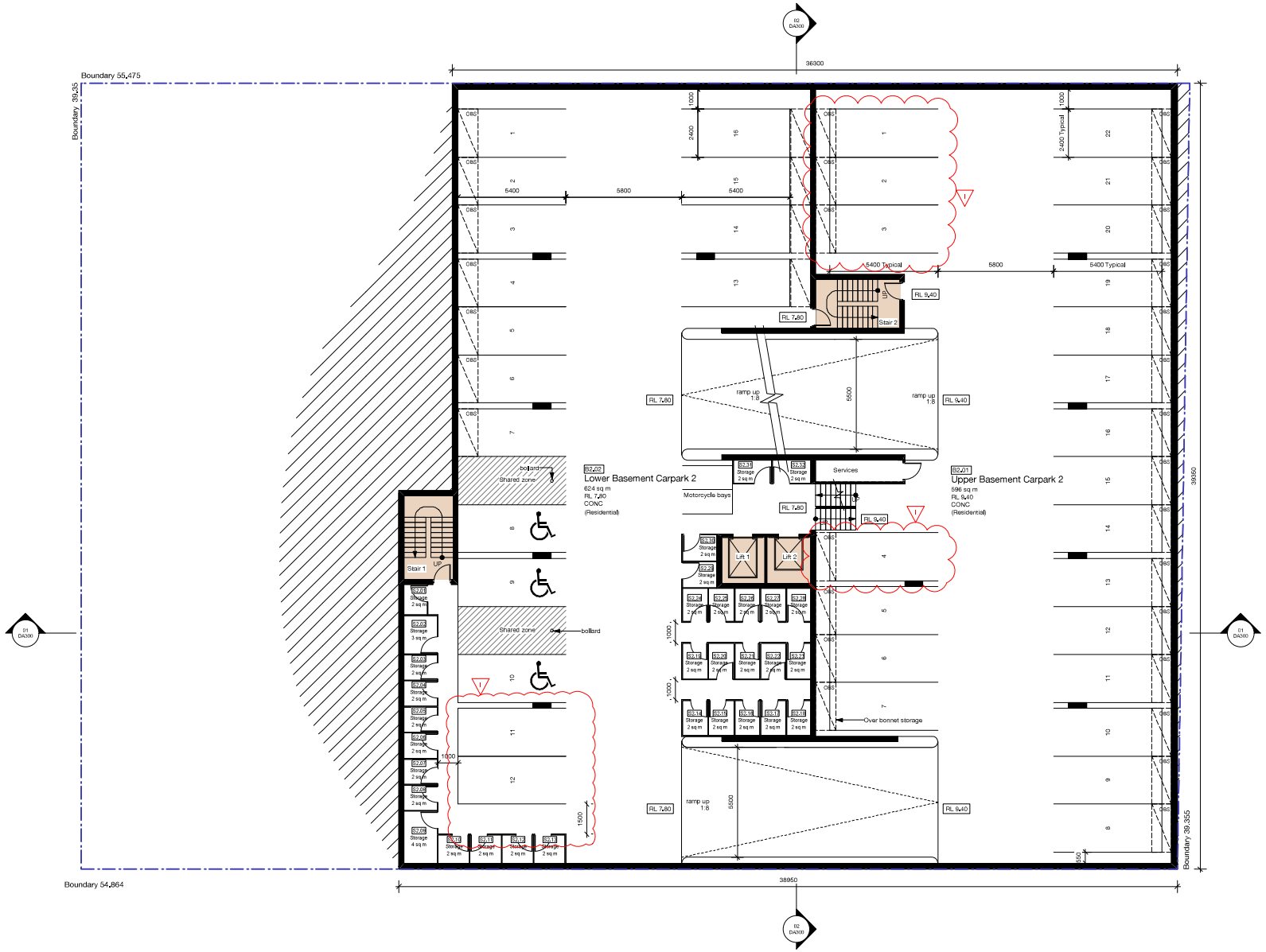

01 | B2 - Basement Carpark Level 2 Plan
DA101 | Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
LVR-3	Fixed Glass Louvre
LVR-4	Fixed Metal Louvre Type 2
MC01	Metal Cladding Type 1
MC02	Metal Cladding Type 2
MW01	Masonary Wall Type 1
MW02	Masonary Wall Type 2
MW03	Masonary Wall Type 3
MW04	Masonary Wall Type 4
MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

Existing trees

Trees to be removed

Over bonnet storage units

0 5 10 M

ISSUE	DATE	REVISION
I	4/6/14	Revised DA issue to Council

NOTE DO NOT SCALE FROM DRAWING. USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION.

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
B2 | Basement Carpark

Baker Kavanagh Architects

north

PROJECT # 12040 DWG # REV
DATE May 2014
SCALE @ A1 1:100 @ A1 DA 101 I
DRAWN NC CHKD JK

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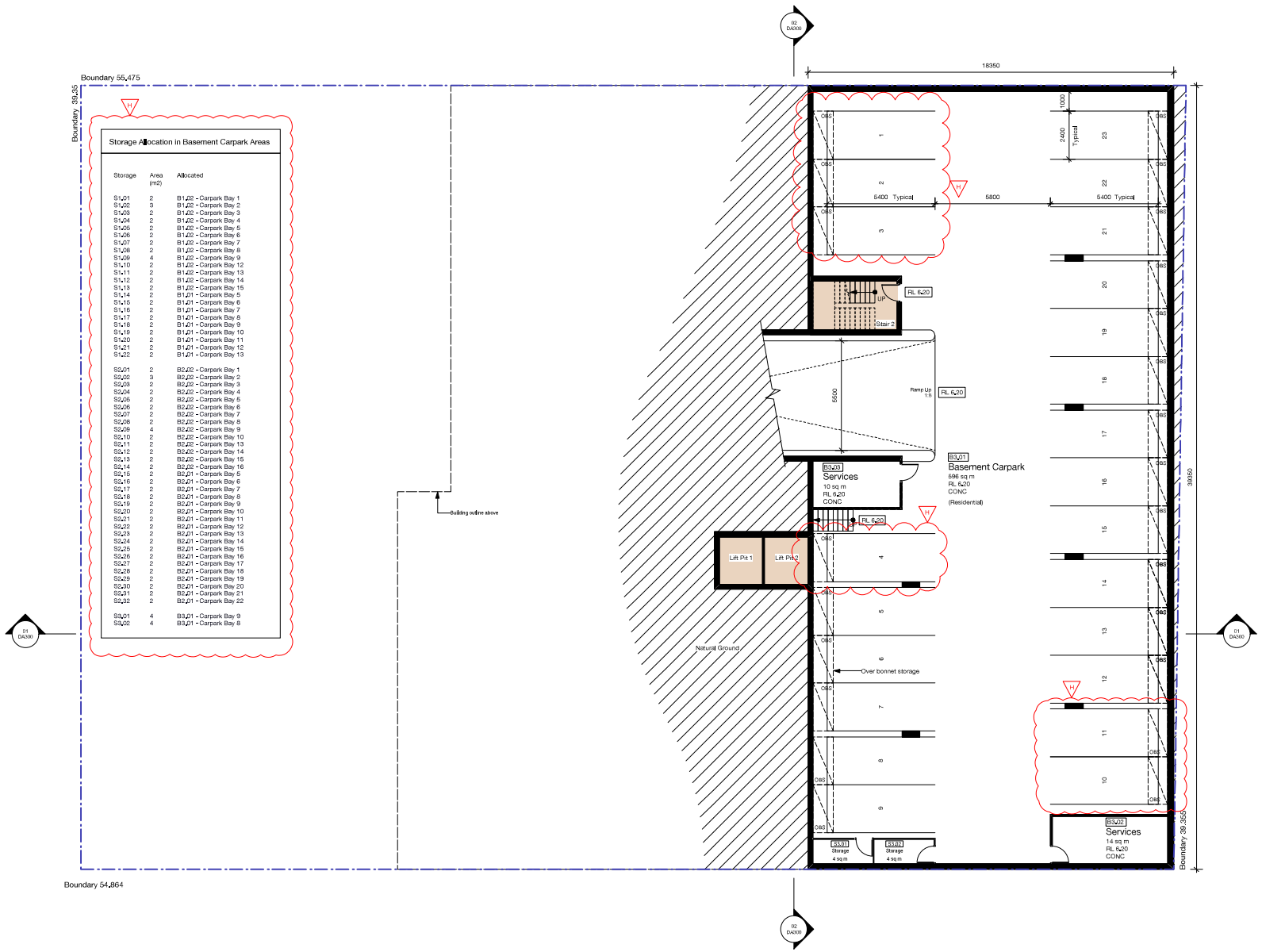

01 DA100 B3 - Basement Carpark Level 3 Plan
Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
LVR-3	Fixed Glass Louvre
LVR-4	Fixed Metal Louvre Type 2
MC01	Metal Cladding Type 1
MC02	Metal Cladding Type 2
MW01	Masonary Wall Type 1
MW02	Masonary Wall Type 2
MW03	Masonary Wall Type 3
MW04	Masonary Wall Type 4
MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

Existing trees

Trees to be removed

Over bonnet storage units

0 5 10 M

ISSUE	DATE	REVISION
H	4/6/14	Revised DA issue to Council

NOTE DO NOT SCALE FROM DRAWING. USE FOR DIRECTION PURPOSES ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION.

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
B3 | Basement Carpark

Baker Kavanagh Architects

north

PROJECT # 12040 DWG # REV
DATE May 2014
SCALE @ A1 1:100 @ A1 DA 100 H
DRAWN NC CHKD JK

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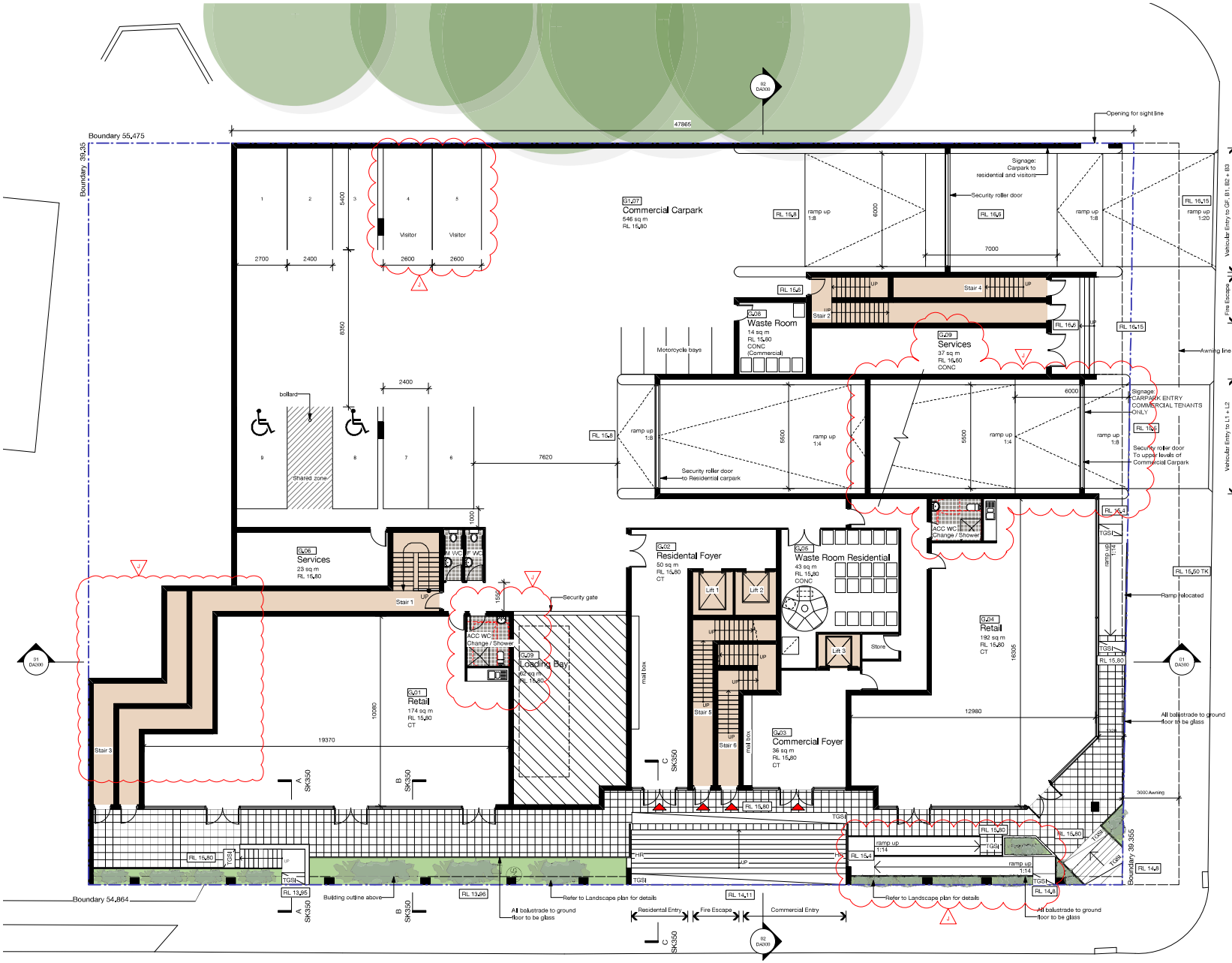

01 DA100 Ground Floor Plan
DA103 Scale: 1:100

0 5 10 M

ISSUE	DATE	REVISION
J	4/05/14	Revised DA Issue to Council
I	12/5/14	Issue to Consultants for Review

NOTE DO NOT SCALE FROM DRAWING. USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY WORK IS DONE OR CONSTRUCTION.

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
GF | Retail & Carpark

Baker Kavanagh architects

north

PROJECT #	12040	DWG # / REV
DATE	May 2014	
SCALE @ A1	1:100 @ A1	DA 103 J
DRAWN	NC	CHKD JK

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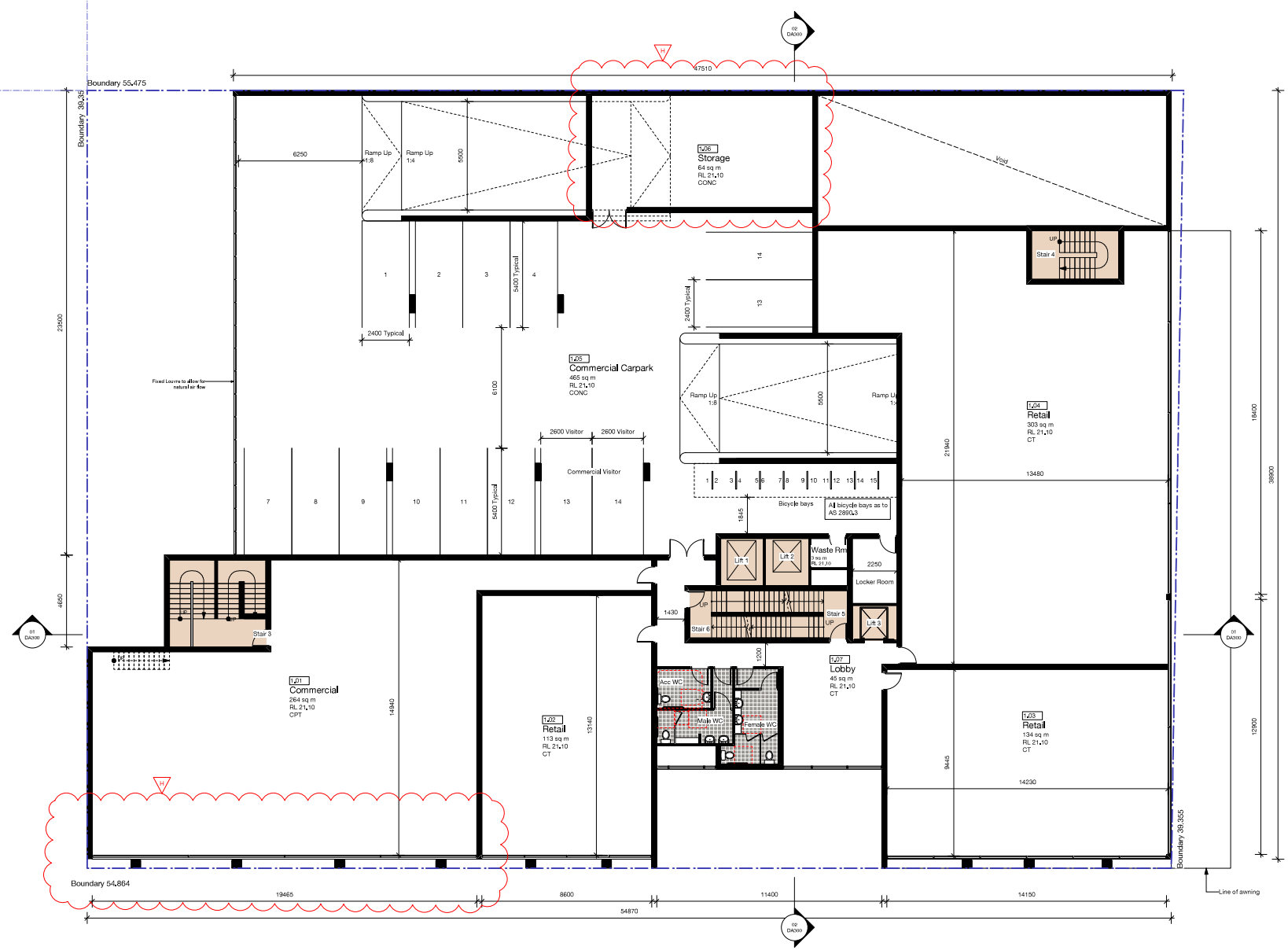

01 Level 1 Floor Plan
DA104 Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
LVR-3	Fixed Glass Louvre
LVR-4	Fixed Metal Louvre Type 2
MC01	Metal Cladding Type 1
MC02	Metal Cladding Type 2
MW01	Masonary Wall Type 1
MW02	Masonary Wall Type 2
MW03	Masonary Wall Type 3
MW04	Masonary Wall Type 4
MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

0 5 10 M

ISSUE	DATE	REVISION
H	5/10/14	Revised issue to Council

NOTE DO NOT SCALE FROM DRAWING - USE FIGURED DIMENSIONS ONLY - CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
L1 | Retail / Commerical

Baker Kavanagh architects

north

PROJECT # 12040 DWG # REV

DATE May 2014

SCALE @ A1 1:100 @ A1 DA 104 H

DRAWN NC CHKD JK

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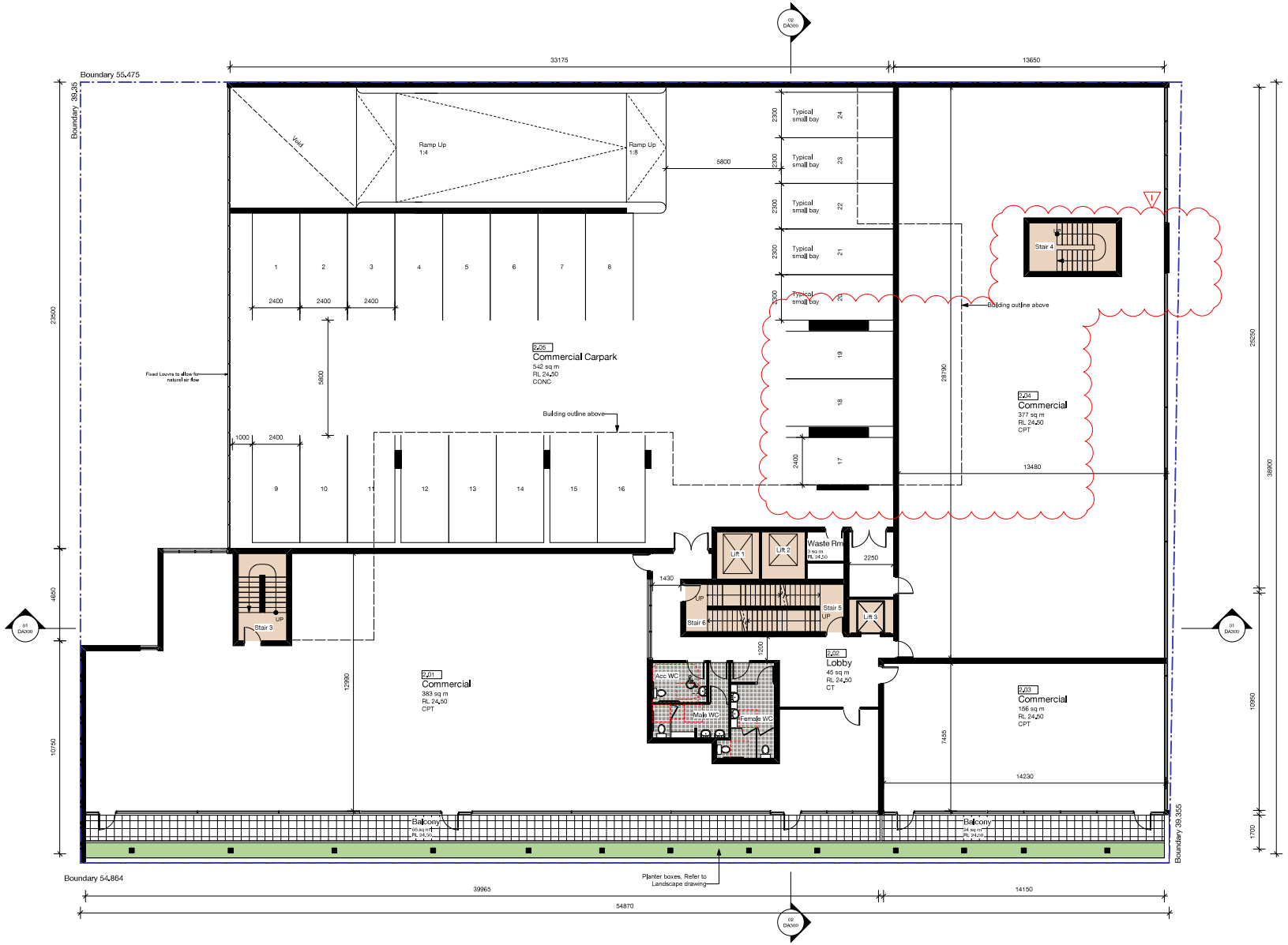

01 DA105 Level 2 Floor Plan
Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
LVR-3	Fixed Glass Louvre
LVR-4	Fixed Metal Louvre Type 2
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MC02	Metal Cladding Type 2
MW01	Masonary Wall Type 1
MW02	Masonary Wall Type 2
MW03	Masonary Wall Type 3
MW04	Masonary Wall Type 4
MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

0 5 10 M

ISSUE	DATE	REVISION
I	9/10/14	Revised Issue to Council
H	4/9/14	Revised DA issue to Council

NOTE DO NOT SCALE FROM DRAWING - USE FIGURED DIMENSIONS ONLY - CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
L2 | Commerical

Baker Kavanagh architects

north

PROJECT #	12040
DATE	May 2014
SCALE @ A1	1:100 @ A1
DRAWN	NC
CHKD	JK

DA 105 I

Baker Kavanagh Architects
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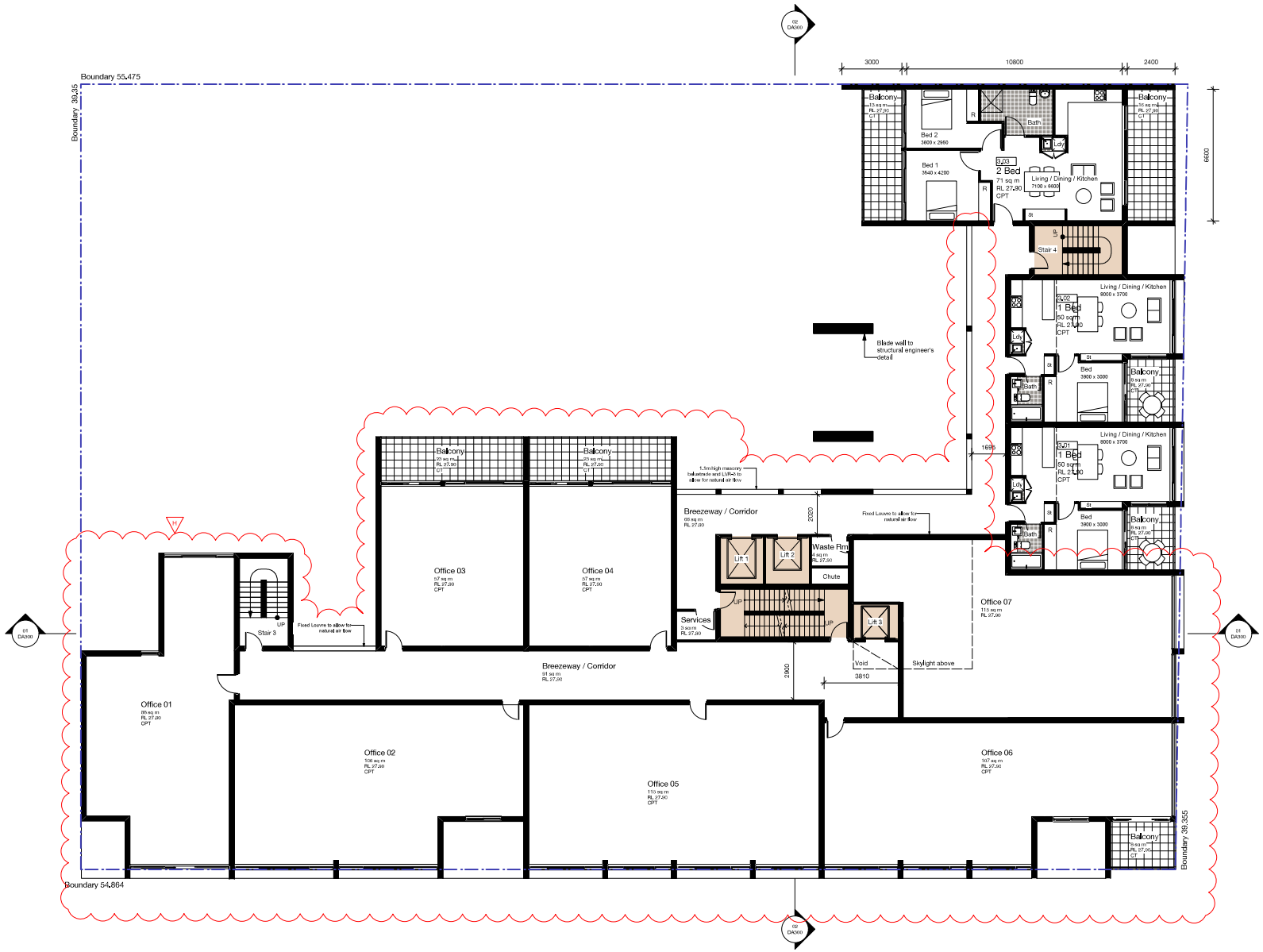

01 DA106a Level 3 - Level 6 Typical Floor Plan
Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
LVR-3	Fixed Glass Louvre
LVR-4	Fixed Metal Louvre Type 2
MC01	Metal Cladding Type 1
MC02	Metal Cladding Type 2
MW01	Masonary Wall Type 1
MW02	Masonary Wall Type 2
MW03	Masonary Wall Type 3
MW04	Masonary Wall Type 4
MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

0 5 10 M

ISSUE	DATE	REVISION
H	5/10/14	Revised Issue to Council
G	4/9/14	Revised DA issue to Council

NOTE DO NOT SCALE FROM DRAWING - USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
L3 | Commercial / Residential

Baker Kavanagh architects

north

PROJECT #	12040	DWG #	REV
DATE	May 2014		
SCALE @ A1	1:100 @ A1		DA 106a H
DRAWN	NC	CHKD	JK

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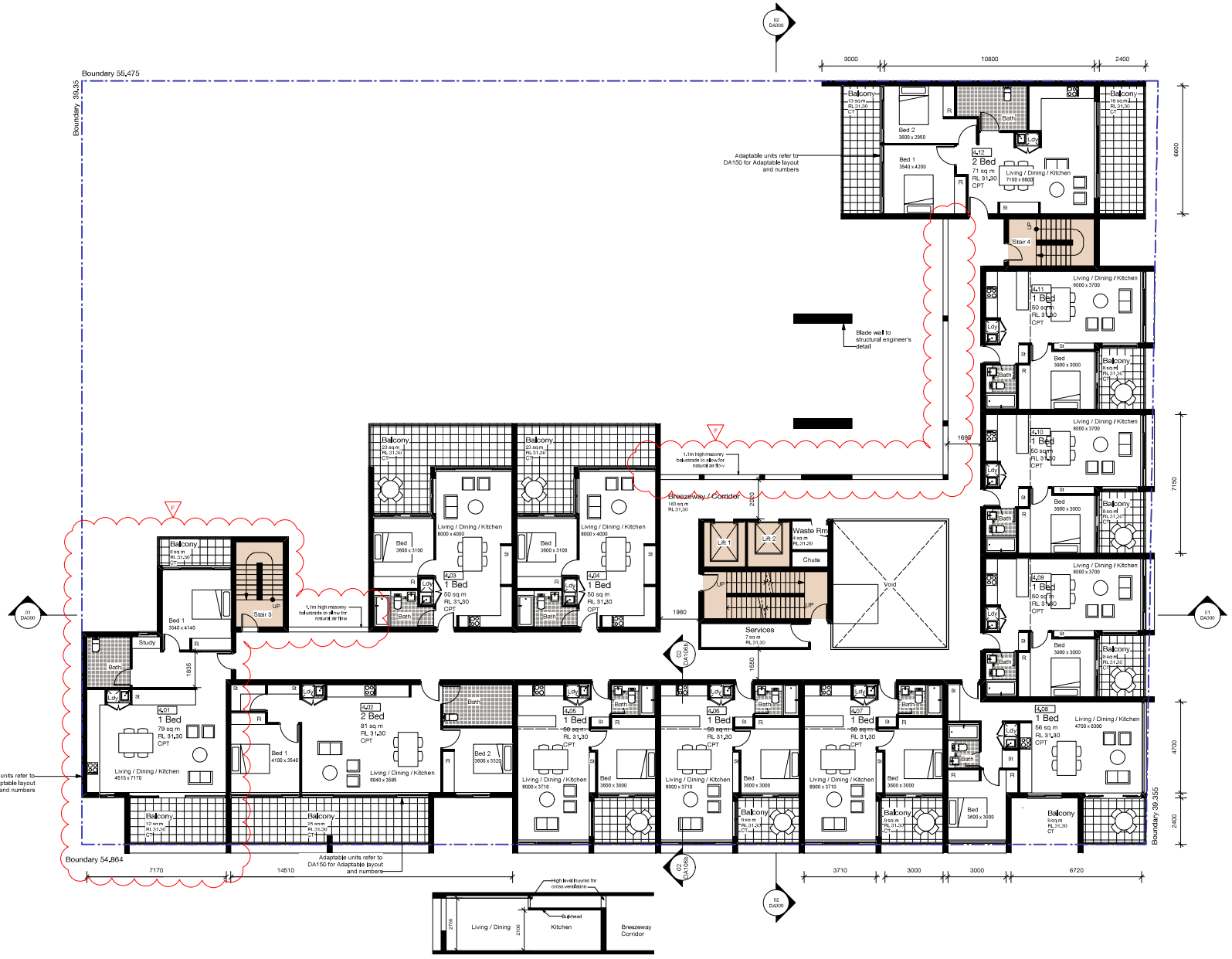

01 DA106b Level 3 - Level 6 Typical Floor Plan
Scale: 1:100

02 DA106b Typical Unit Section
Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
LVR-3	Fixed Glass Louvre
LVR-4	Fixed Metal Louvre Type 2
MC01	Metal Cladding Type 1
MC02	Metal Cladding Type 2
MW01	Masonary Wall Type 1
MW02	Masonary Wall Type 2
MW03	Masonary Wall Type 3
MW04	Masonary Wall Type 4
MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

0 5 10 M

ISSUE	DATE	REVISION
F	4/6/14	Revised DA issue to Council

NOTE DO NOT SCALE FROM DRAWING. USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY WORK OR STRUCTURE OR CONSTRUCTION.

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
L4 - L6 | Residential Housing

Baker Kavanagh architects

PROJECT #	12040	DWG #
DATE	May 2014	REV
SCALE @ A1	1:100 @ A1	DA 106b F
DRAWN	NC	CHKD JK

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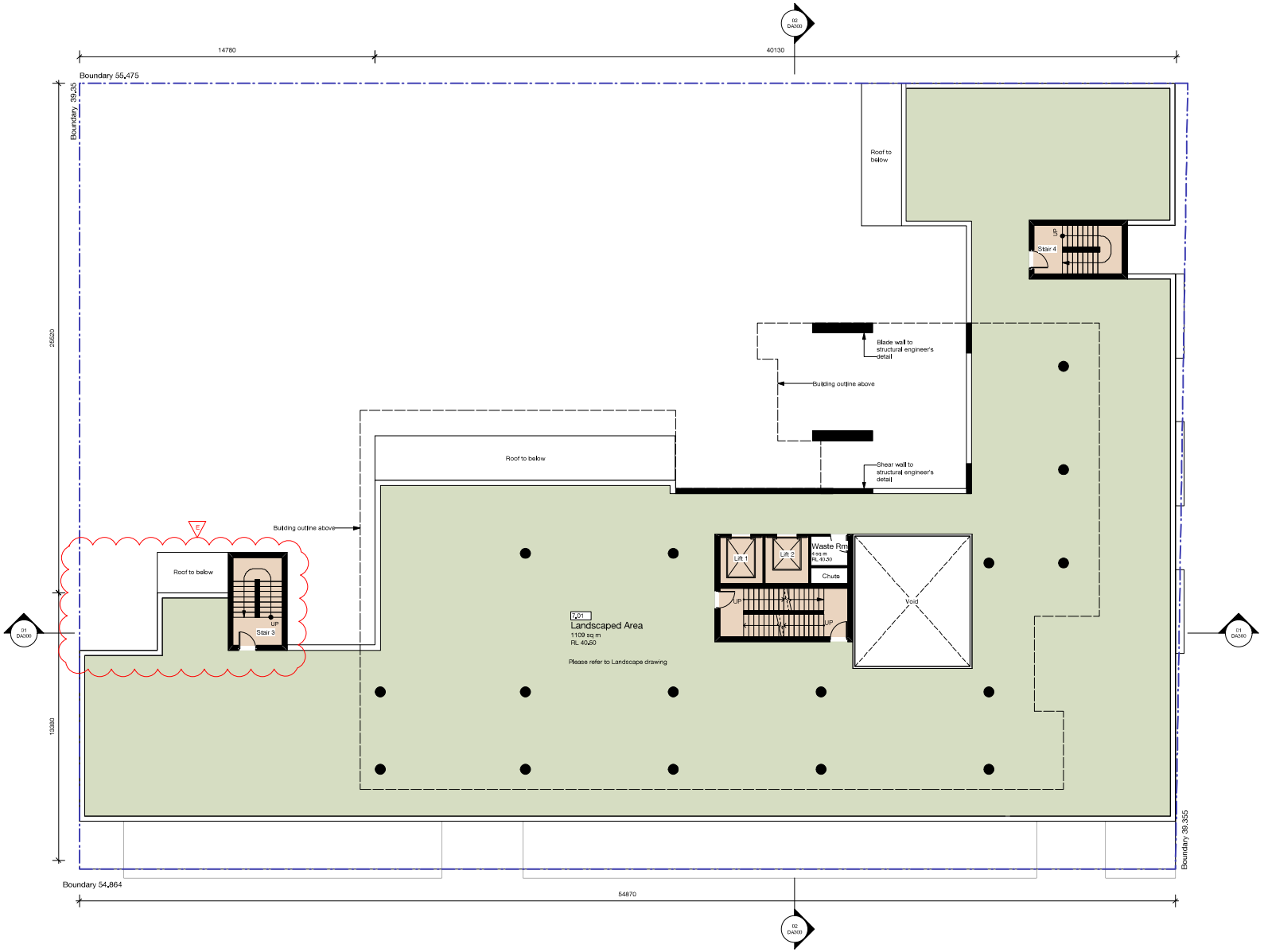

01 Podium Level Floor Plan
DA107 Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
LVR-3	Fixed Glass Louvre
LVR-4	Fixed Metal Louvre Type 2
MC01	Metal Cladding Type 1
MC02	Metal Cladding Type 2
MW01	Masonary Wall Type 1
MW02	Masonary Wall Type 2
MW03	Masonary Wall Type 3
MW04	Masonary Wall Type 4
MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

0 5 10 M

ISSUE	DATE	REVISION
E	4/5/14	Revised DA issue to Council
D	4/5/14	Issue to Consultants for Review

NOTE DO NOT SCALE FROM DRAWING. USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
L7 | Podium

Baker Kavanagh architects

north

PROJECT # 12040 DWG # REV
DATE May 2014
SCALE @ A1 1:100 @ A1 DA 107 E
DRAWN NC CHKD JK

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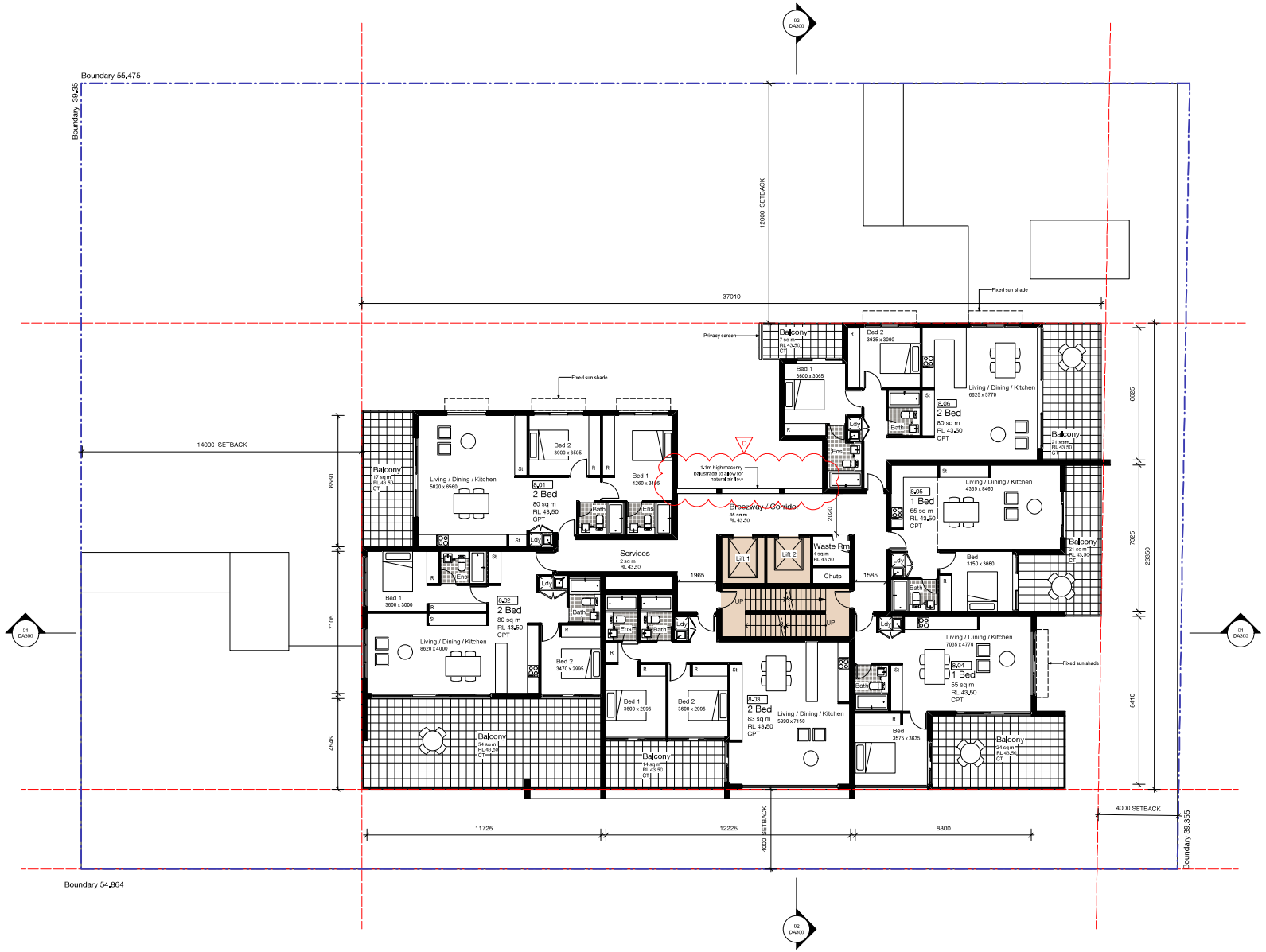

01 DA108a Level 8 - Level 12 Typical Floor Plan
Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
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LVR-4	Fixed Metal Louvre Type 2
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MC02	Metal Cladding Type 2
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MW03	Masonary Wall Type 3
MW04	Masonary Wall Type 4
MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

0 5 10 M

ISSUE	DATE	REVISION
D	4/9/14	Revised DA issue to Council

NOTE DO NOT SCALE FROM DRAWING. USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY WORK OR STRUCTURE OR CONSTRUCTION.

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
L8 - L13 | Residential Tower

Baker Kavanagh Architects

north

PROJECT # 12040 DWG # REV
DATE May 2014
SCALE @ A1 1:100 @ A1 DA 108a D
DRAWN NC CHKD JK

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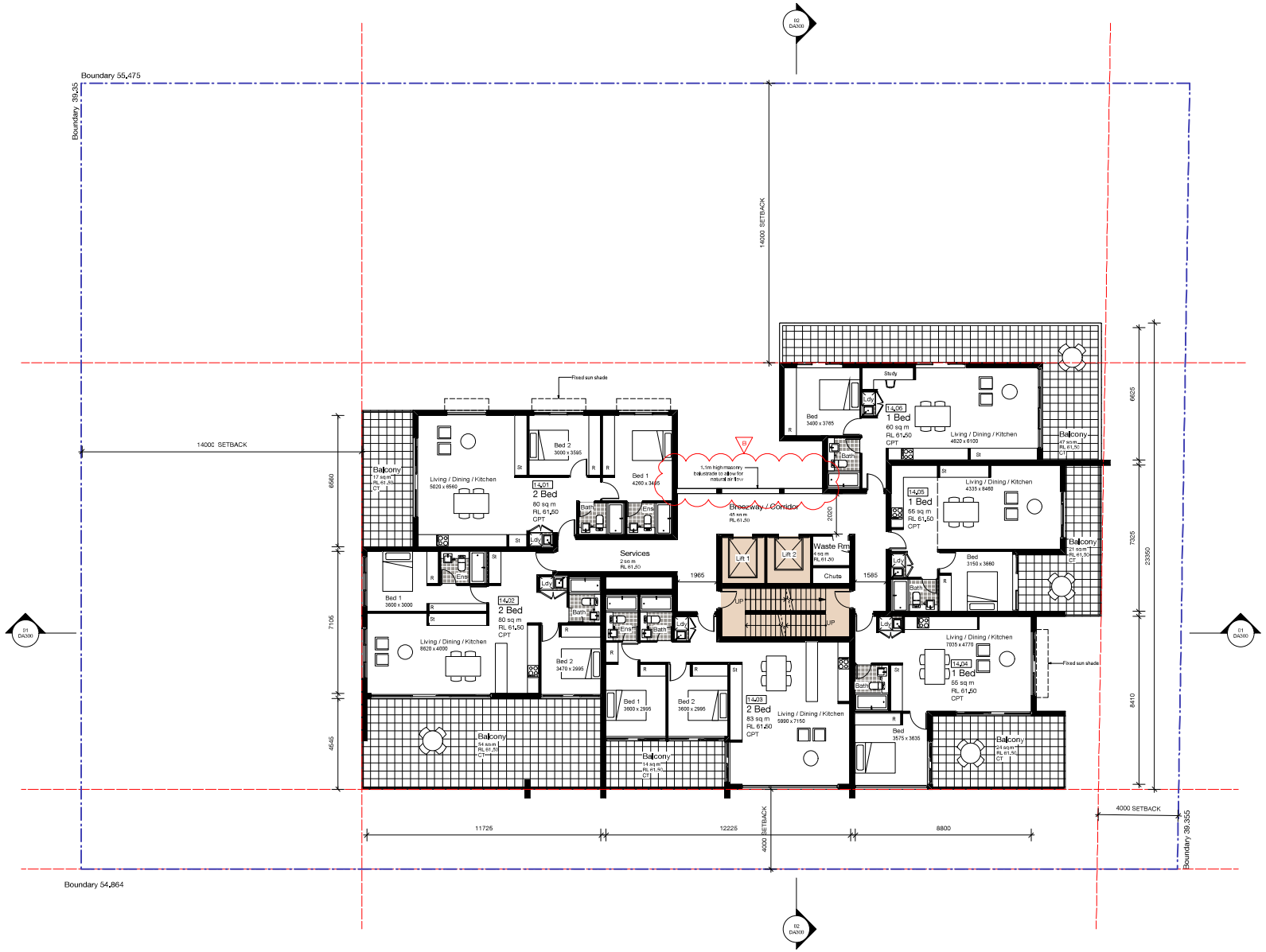

01 DA108b Level 8 - Level 12 Typical Floor Plan
Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
LVR-3	Fixed Glass Louvre
LVR-4	Fixed Metal Louvre Type 2
MC01	Metal Cladding Type 1
MC02	Metal Cladding Type 2
MW01	Masonary Wall Type 1
MW02	Masonary Wall Type 2
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MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

0 5 10 M

C 4/5/14 Revised DA issue to Council
ISSUE DATE REVISION

NOTE DO NOT SCALE FROM DRAWING. USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY WORK IS UNDERTAKEN OR CONSTRUCTION.

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
L14 | Residential Tower

Baker Kavanagh architects

north

PROJECT # 12040 DWG # REV
DATE May 2014
SCALE @ A1 1:100 @ A1 DA 108b C
DRAWN NC CHKD JK

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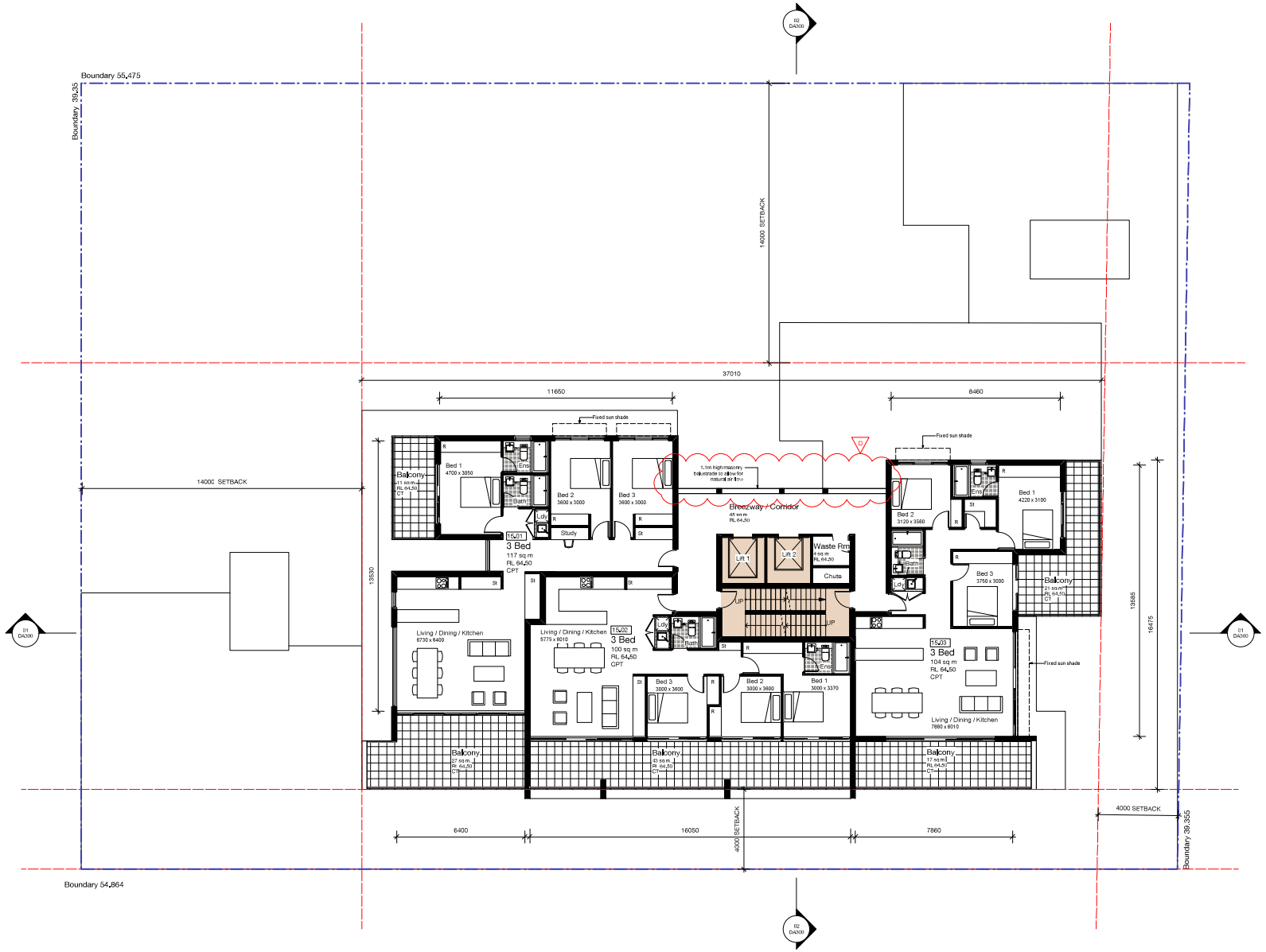

01 DA109 Level 15 - Level 16 Typical Floor Plan
Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
LVR-3	Fixed Glass Louvre
LVR-4	Fixed Metal Louvre Type 2
MC01	Metal Cladding Type 1
MC02	Metal Cladding Type 2
MW01	Masonary Wall Type 1
MW02	Masonary Wall Type 2
MW03	Masonary Wall Type 3
MW04	Masonary Wall Type 4
MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

0 5 10 M

ISSUE	DATE	REVISION
D	4/9/14	Revised DA issue to Council

NOTE DO NOT SCALE FROM DRAWING. USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY WORK IS DONE OR CONSTRUCTION

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
L15 - L16 | Residential Tower

Baker Kavanagh Architects

north

PROJECT #	12040	DWG #	REV
DATE	May 2014		
SCALE @ A1	1:100 @ A1	DA 109 D	
DRAWN	NC	CHKD	JK

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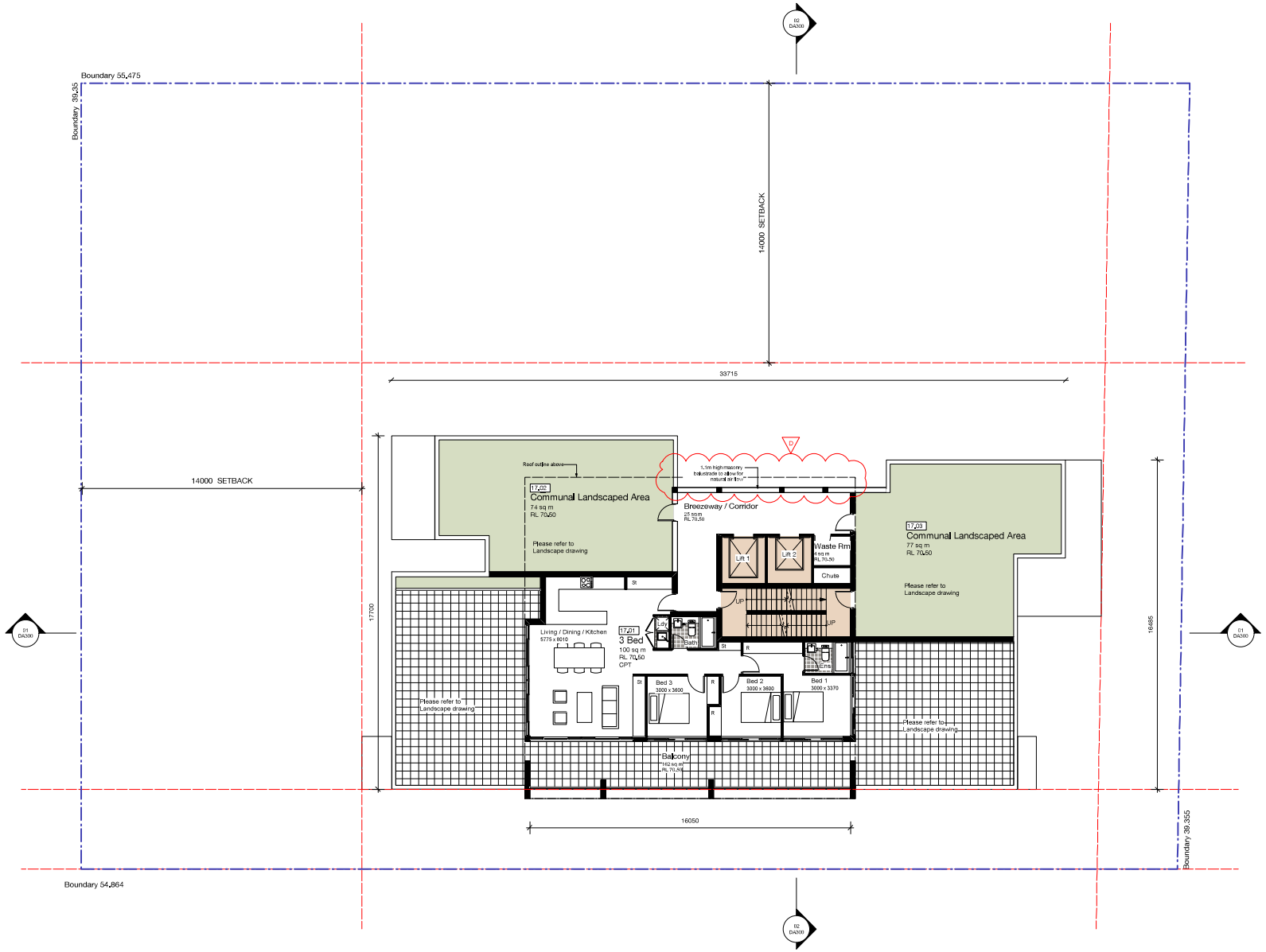

01 DA110 Level 17 Penthouse Floor Plan
Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
LVR-3	Fixed Glass Louvre
LVR-4	Fixed Metal Louvre Type 2
MC01	Metal Cladding Type 1
MC02	Metal Cladding Type 2
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MW03	Masonary Wall Type 3
MW04	Masonary Wall Type 4
MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

0 5 10 M

ISSUE	DATE	REVISION
D	4/6/14	Revised DA issue to Council

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PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
L17 | Residential Tower

Baker Kavanagh architects

north

PROJECT #	12040
DATE	May 2014
SCALE @ A1	1:100 @ A1
DRAWN	NC
CHKD	JK
DWG #	DA 110 D
REV	

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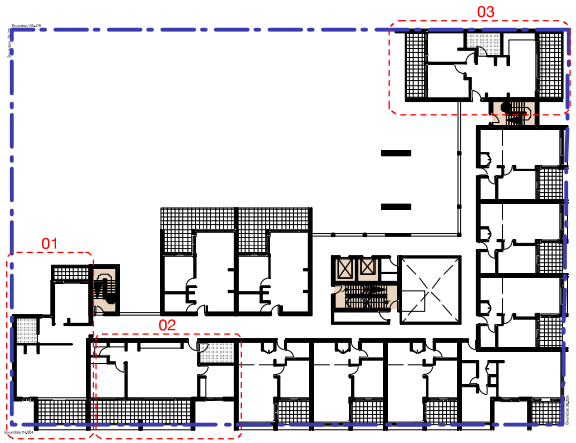
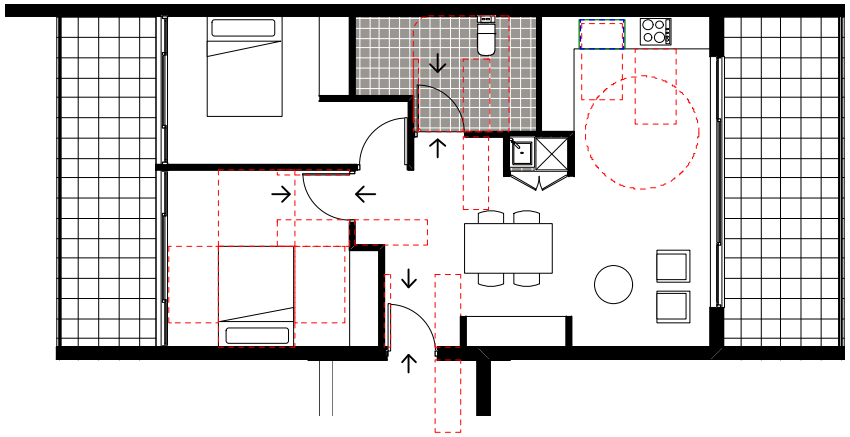
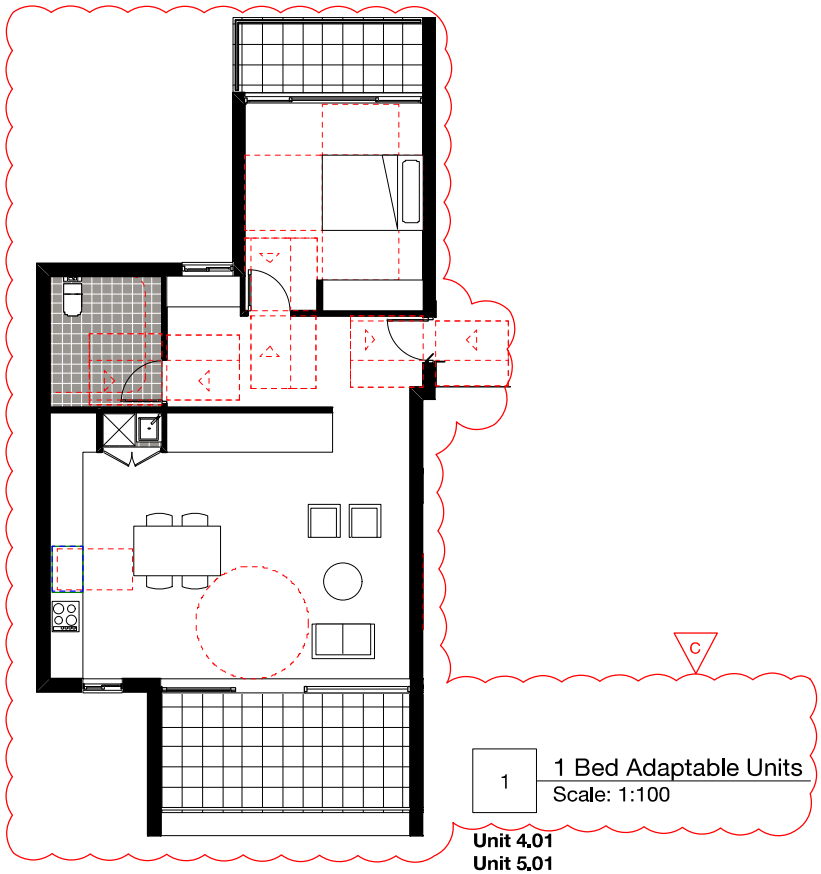


Typical Floor Plan - Level 4,5 & 6
Total: 9 Adaptable Units



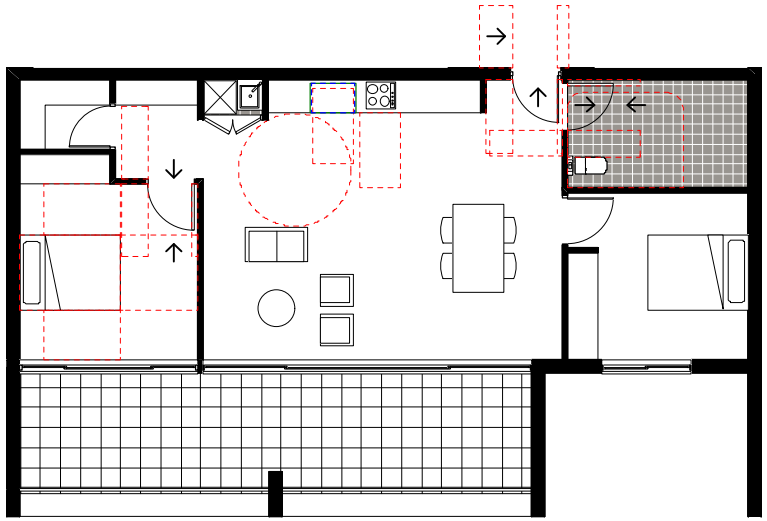
3 — 2 Bed Adaptable Units
Scale: 1:100

Unit 4.12
Unit 5.12
Unit 6.12



1 — 1 Bed Adaptable Units
Scale: 1:100

Unit 4.01
Unit 5.01
Unit 6.01



2 — 2 Bed Adaptable Units
Scale: 1:100

Unit 4.02
Unit 5.02
Unit 6.02

C — Revised DA issue for Council

NOTE: DO NOT SCALE FROM DRAWING. USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
Adaptable Units

Baker Kavanagh architects

north

PROJECT # 12040 | SHEET # | REV
DATE: May 2014
SCALE @ A1 / A3: 1:100 @ A3
DRAWN: NC | CHKD: JK

DA 150 C

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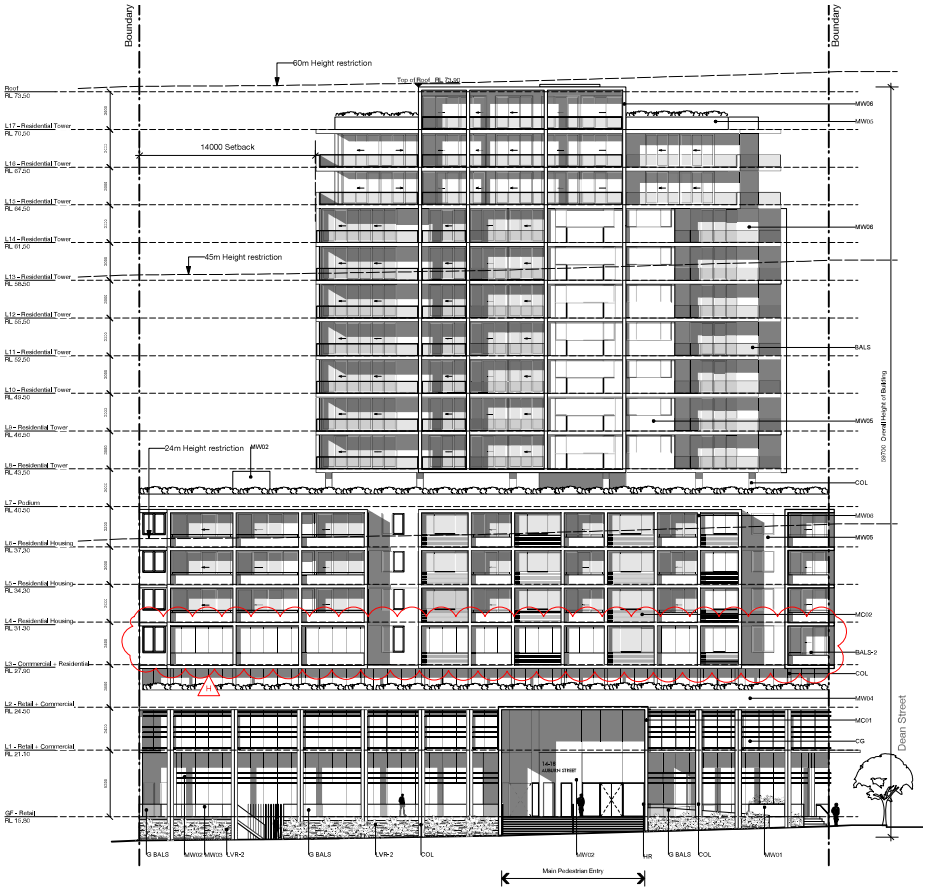
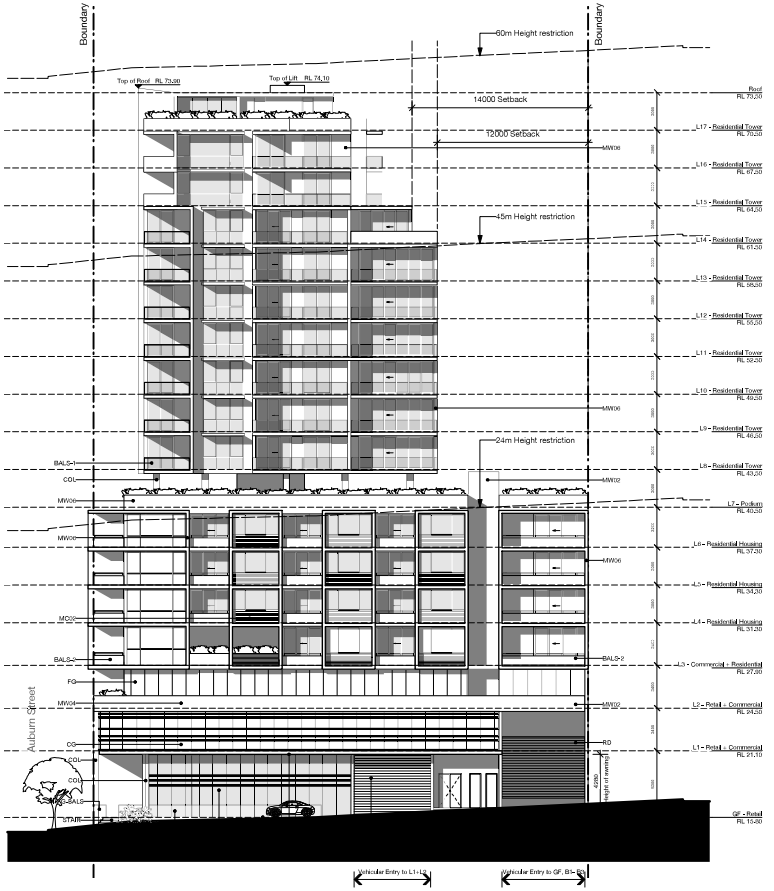


01 East Elevation | Auburn Street
DA200 Scale: 1:200



02 North Elevation | Dean Street
DA200 Scale: 1:200

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
LVR-1	Fixed Metal Louvre Type 1
LVR-3	Fixed Glass Louvre
LVR-4	Fixed Metal Louvre Type 2
MC01	Metal Cladding Type 1
MC02	Metal Cladding Type 2
MW01	Masonary Wall Type 1
MW02	Masonary Wall Type 2
MW03	Masonary Wall Type 3
MW04	Masonary Wall Type 4
MW05	Masonary Wall Type 5
MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

ISSUE	DATE	REVISION
H	5/12/14	Revised Issue to Council
G	4/9/14	Revised DA issue to Council

NOTE DO NOT SCALE FROM DRAWING, USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
Elevations 01

Baker Kavanagh architects

PROJECT # 12040 DWG # REV
DATE May 2014
SCALE @ A1 1:200 @ A1 DA 200 H
DRAWN NC CHKD JK

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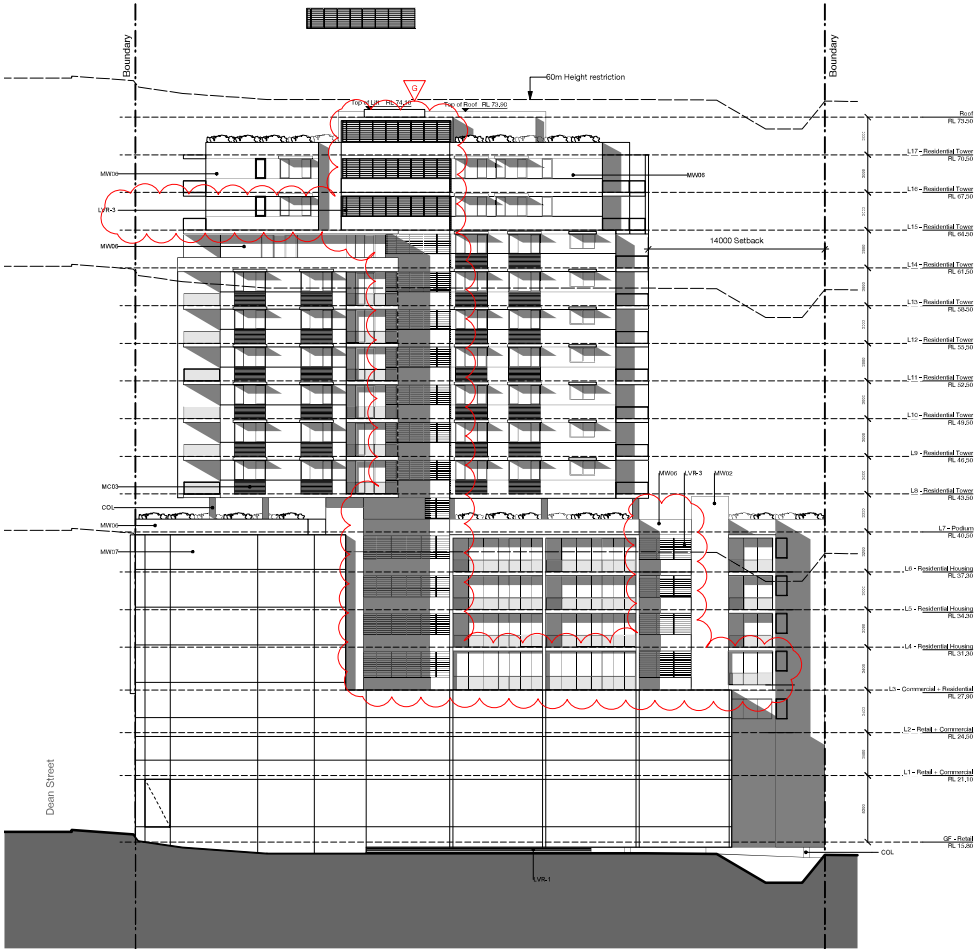
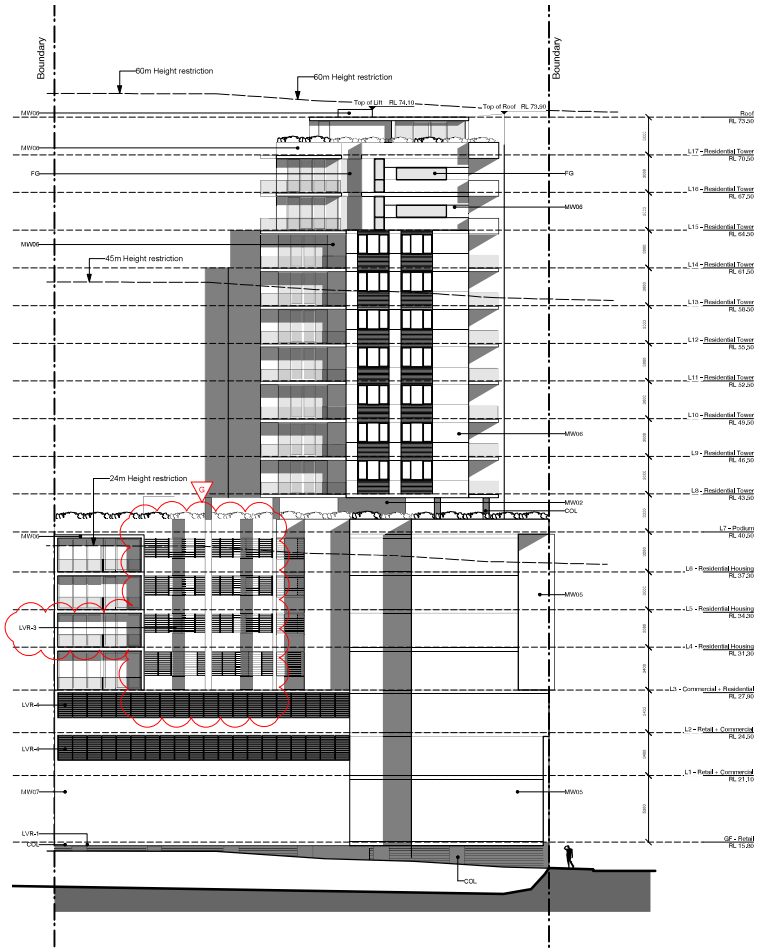


01 DA201 West Elevation
Scale: 1:200



02 DA201 South Elevation
Scale: 1:200

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
G	Glass
LDRY	Laundry
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MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

ISSUE	DATE	REVISION
G	5/10/14	Revised issue to Council

NOTE DO NOT SCALE FROM DRAWING, USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
Elevations 02

Baker Kavanagh architects

PROJECT # 12040 DWG # REV
DATE May 2014
SCALE @ A1 1:200 @ A1 DA 201 G
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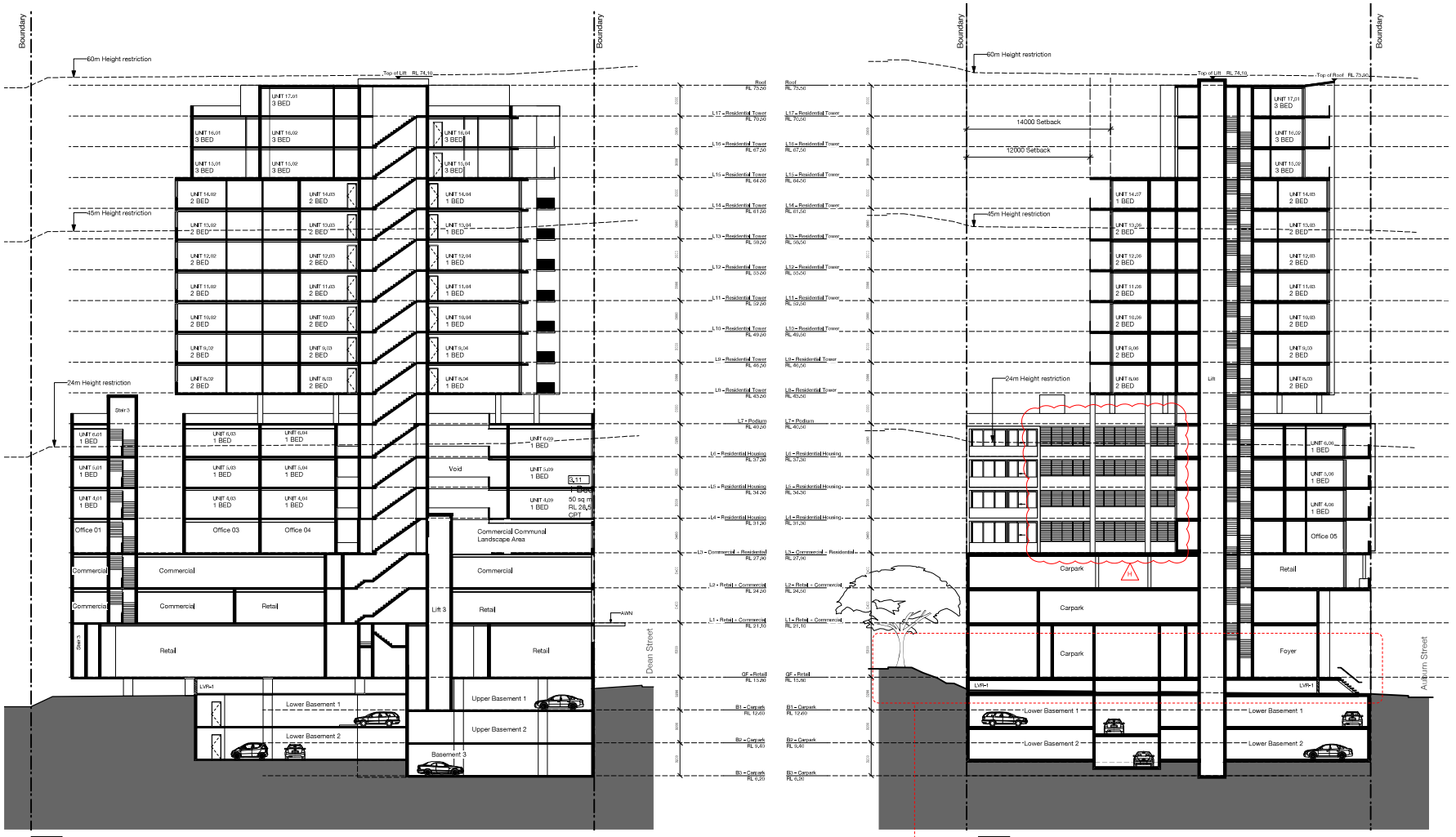
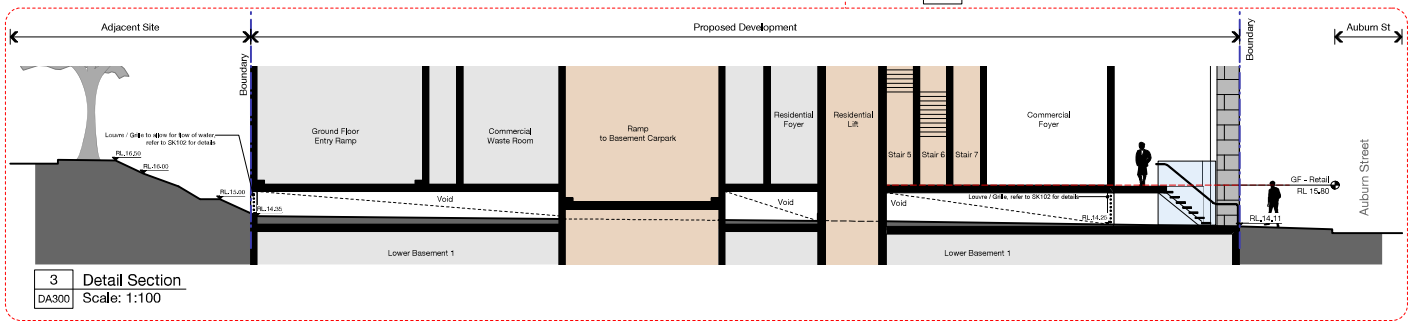


01 DA300 Section 1
Scale: 1:200

02 DA300 Section 2
Scale: 1:200



3 DA300 Detail Section
Scale: 1:100

Legend

CL	Ceiling Line
COL	Column
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
FFL	Finished Floor Level
FG	Fixed Glass
FL	Floor Level
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MW06	Masonary Wall Type 6
MW07	Masonary Wall Type 7
MR	Metal Roof
OBS	Over Bonnet Storage
R	Robe
RL	Registered Level
St	Storage
T	Timber Cladding
TGSI	Tactile Ground Surface Indicator

ISSUE	DATE	REVISION
H	9/10/14	Revised issue to Council

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PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
Sections 01

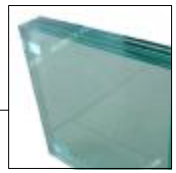
Baker Kavanagh architects

PROJECT # 12040 DWG # REV
DATE May 2014
SCALE @ A1 1:200 @ A1 DA 300 H
DRAWN NC CHKD JK

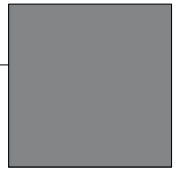
Baker Kavanagh Architects
Suite 1.04 77 Dunning Avenue, Rosebery 2018
T: 612 9318 9200 F: 612 9318 9222 W: www.bka.com.au E: bka@bka.com.au

MATERIAL 1
'White' Concrete Render

MATERIAL 2
'Clear' glass balustrade

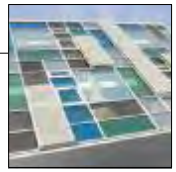


MATERIAL 3
'Clear' glass window panels

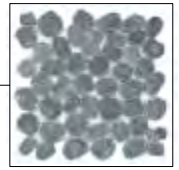


MATERIAL 5
'Facade' powdercoated window frames

MATERIAL 4
Alucobond panels, Wood design colour 'Royal Cedar'



MATERIAL 6
Coloured glass panels to L1 Commercial Areas



MATERIAL 7
'Charcoal' stone tiles to ground level landscaping retaining walls

B	21/5/14	Issue to Consultants for Review
ISSUE	DATE	REVISION

NOTE DO NOT SCALE FROM DRAWING, USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE ANY MANUFACTURE OR CONSTRUCTION

PROJECT
Mixed Use Development

ADDRESS
14-18 Auburn Street, Wollongong

CLIENT
ESH Holdings P/L & EB Property P/L

DRAWING
Schedule of Materials & Finishes

Baker Kavanagh architects

north

PROJECT #	12040	DWG # / REV
DATE	May 2014	DA 900 B
SCALE @ A1	NTS	
DRAWN	PM	CHKD JK

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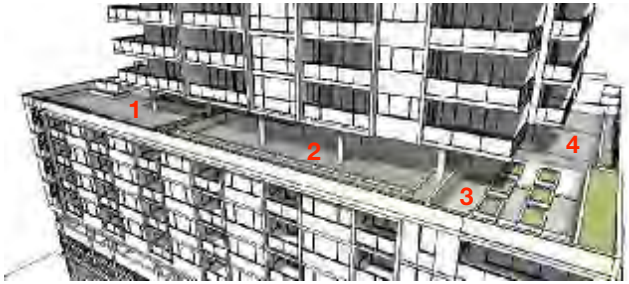
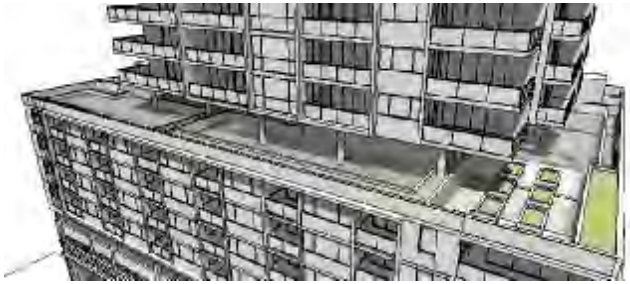
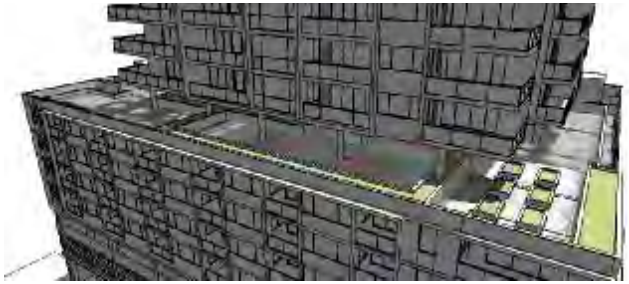


22 DECEMBER - 9 AM



22 DECEMBER - 10 AM

22 DECEMBER - 11 AM



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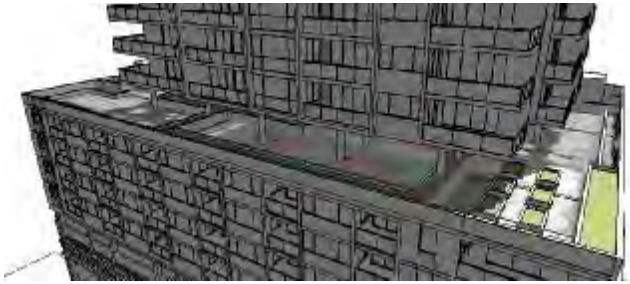

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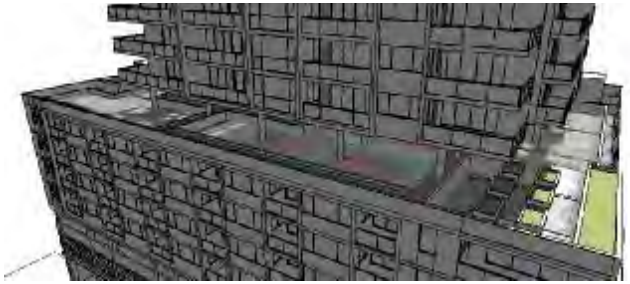

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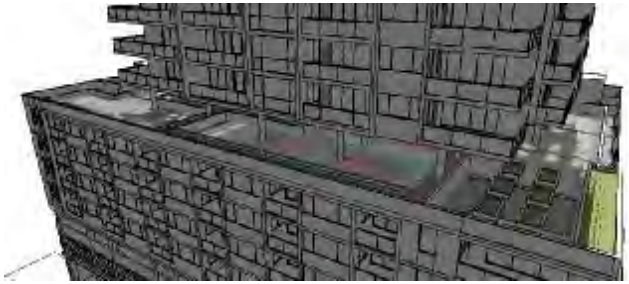

22 DECEMBER - 3 PM

SOLAR ANALYSIS OF PODIUM LEVEL
12040_14-18 Auburn Street, Wollongong

1.2 VIEW 1 - SUMMER

NOVEMBER 2013
ISSUE: A
DWG: SK 852

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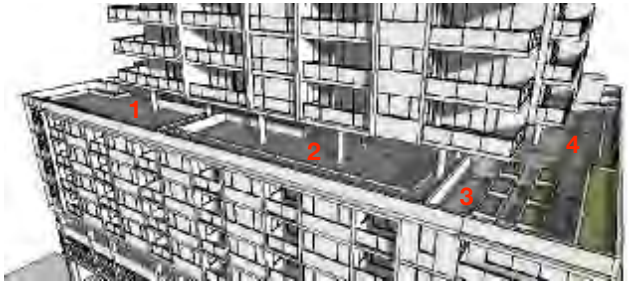

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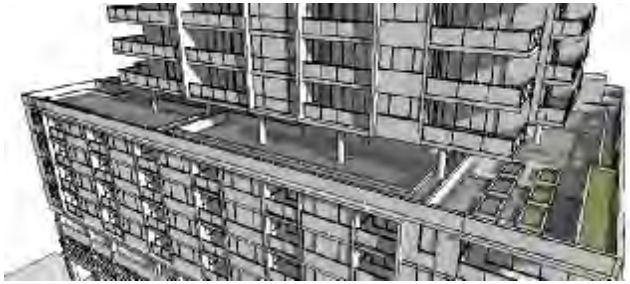

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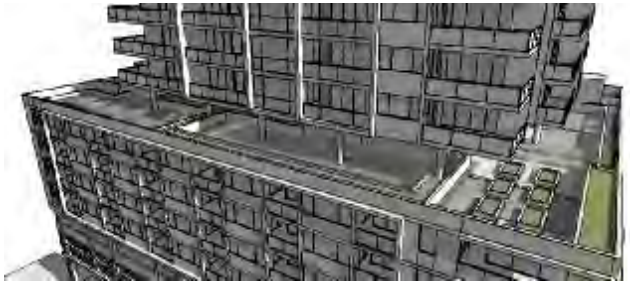

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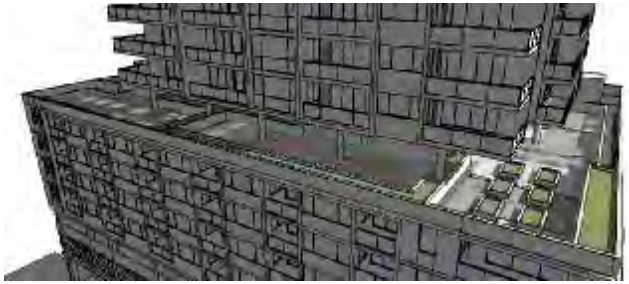

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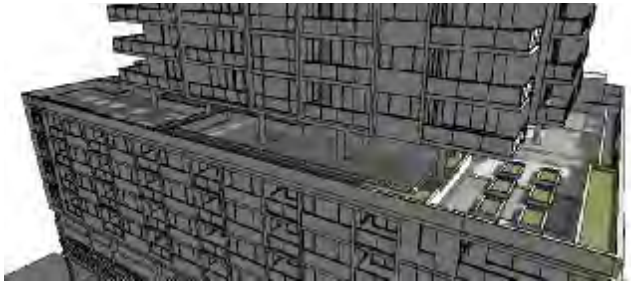

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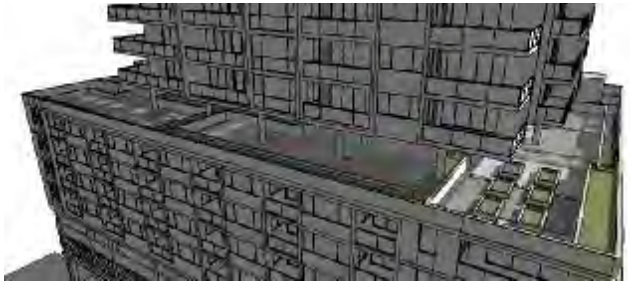

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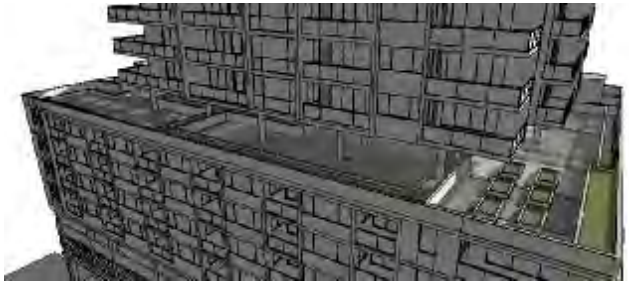

21 JUNE - 3 PM

1-BBQ AREA 1: This BBQ/Entertainment area captures great morning sun during winter, allowing the residents to enjoy their breakfast or group gathering. In summer, half of the area is shades by the building, offering a cooler place for the residents to stay. This multipurpose area can be divided into smaller sections for smaller groups or can be combined for larger groups gathering.

2-CHILDREN PLAY AREA: This play area offers a safe and secure place for the children to play. The central location allow the ease of surveillance from other areas. The area captures the morning sun in winter, offering a place for the children to enjoy during those cold winter morning. On summer afternoons the area offers shade, allowing the children to do their outdoor activities away from undesirable sun.

3-EDIBLE GARDEN: This area is designed to enrich the community by providing a central place for the residents to plant vegetables, herbs, flowers and enjoy the results of their labor.This communal edible garden is specifically placed to have access to sun all day, both in winter and summer, this is to maximise the growth and maturity of the vegetations.

4-BBQ AREA 2: This second BBQ/Entertainment area is designed to offer a variety of choice of amenity. This area located directly North of the site will have sun access all day in both summer and winter. This smaller BBQ area allows smaller intimate group gathering.

SOLAR ANALYSIS OF PODIUM LEVEL
12040_14-18 Auburn Street, Wollongong

1.1 VIEW 1 - WINTER

NOVEMBER 2013
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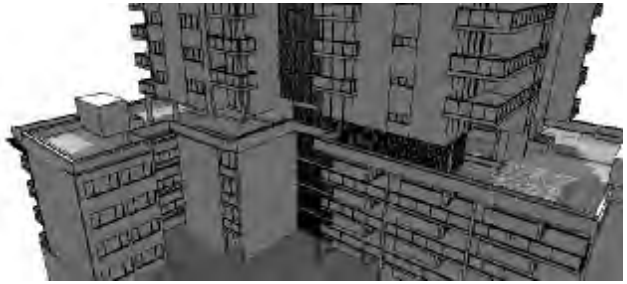
22 DECEMBER - 9 AM



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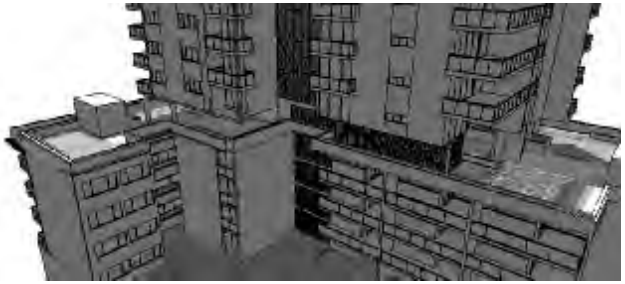
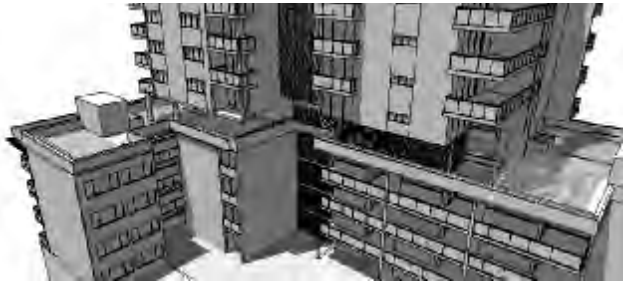


22 DECEMBER - 11 AM

22 DECEMBER -12 PM



22 DECEMBER - 1PM

22 DECEMBER - 2 PM

22 DECEMBER - 3 PM

SOLAR ANALYSIS OF PODIUM LEVEL
12040_14-18 Auburn Street, Wollongong

1.4 VIEW 2 - SUMMER

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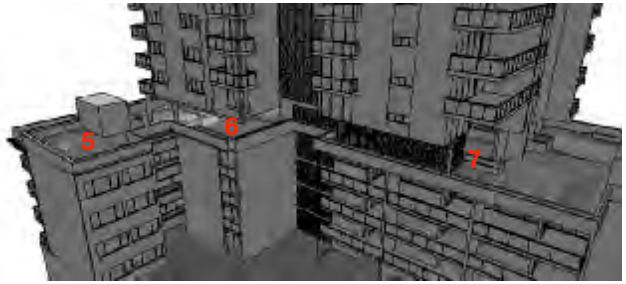

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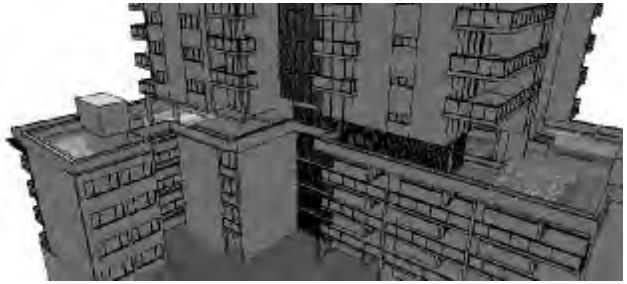

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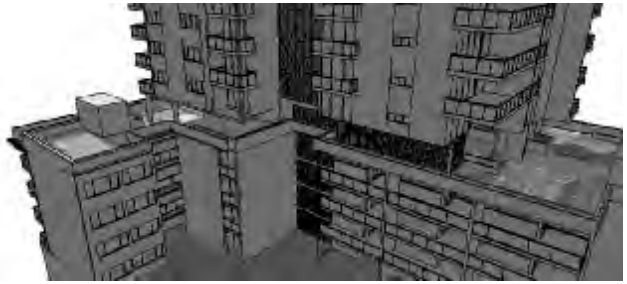

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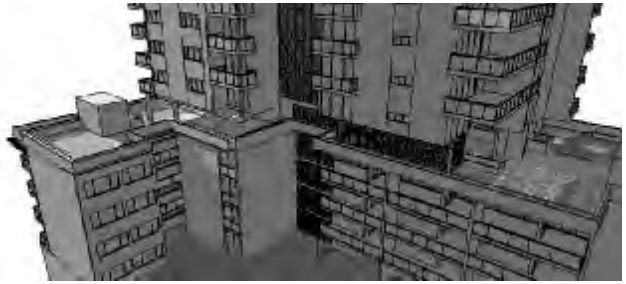

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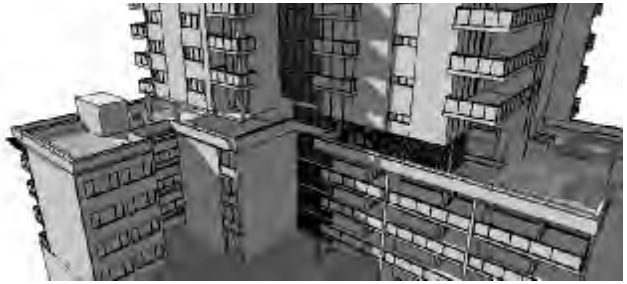

21 JUNE - 1 PM

21 JUNE - 2 PM

21 JUNE - 3 PM

5-DRYING AREA: This area is strategically placed to have full sun access in both summer and winter. This screened off area serves as a communal drying area or can become a flexible communal place.

6-OUTDOOR GYM AREA: The semi indoor/outdoor area act as a community gym. The area offers a place away from the sun while being well ventilated for the residents to enjoy their exercises.

7-PASSIVE AREA: The passive area is divided into semi enclosed and fully outdoor areas. The area is designed to be a quiet place for the residents to read, study or meditate with a water feature. The semi enclosed area allows filtered afternoon sun to penetrate while the outdoor area captures the full afternoon winter sun. Once again it offers choices for the residents.

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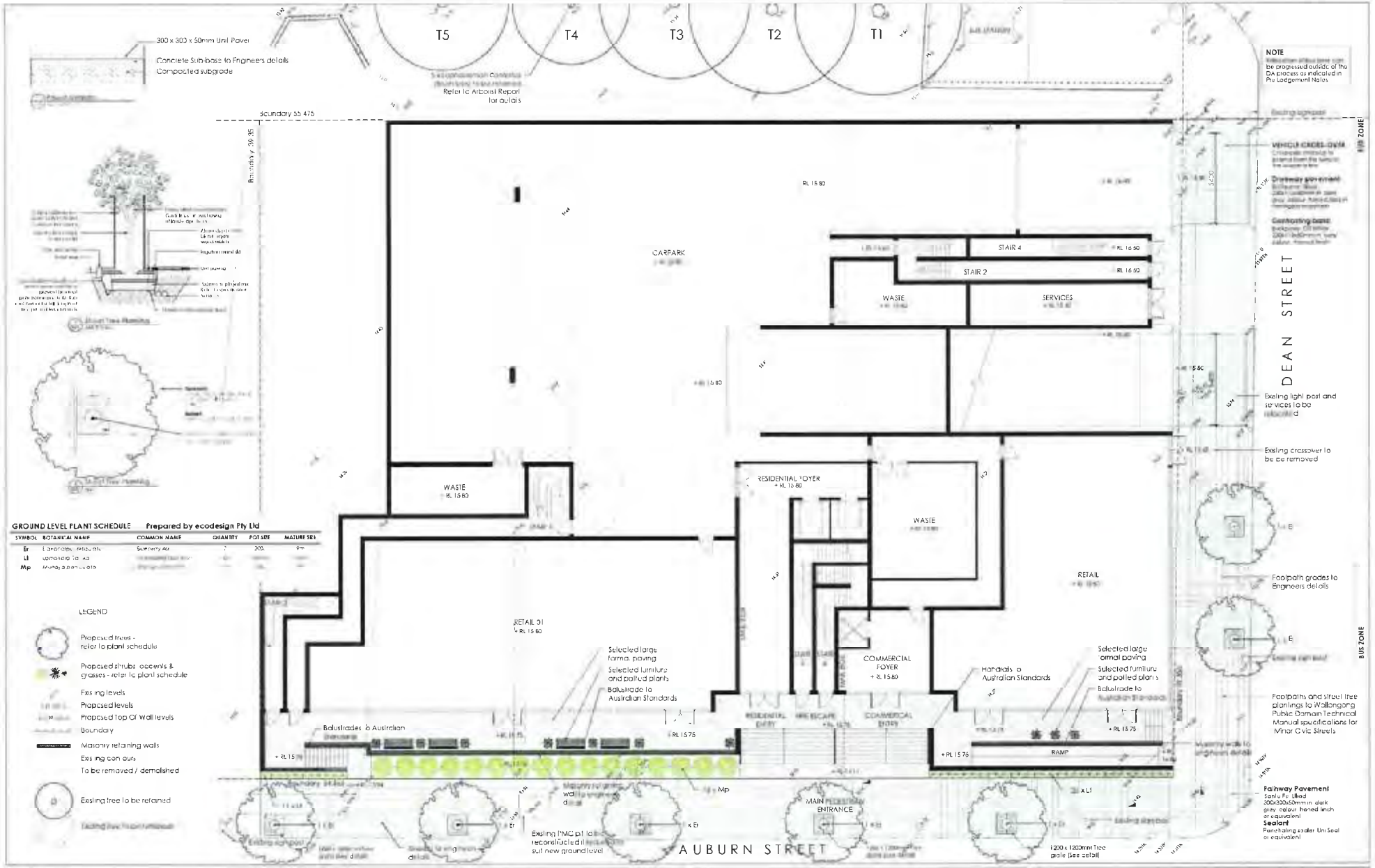

GROUND LEVEL PLANT SCHEDULE Prepared by ecodesign Pty Ltd

SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	POT SIZE	MATURE SIZE
Er	Elaeocarpus reticulatus	Blueberry Ash	7	200L	9m
Li	Lomandra 'Tanika'				
Mp	Murraya paniculata				

LEGEND

- Proposed trees - refer to plant schedule
- Proposed shrubs, accents & grasses - refer to plant schedule
- Existing levels
- Proposed levels
- Proposed Top Of Wall levels
- Boundary
- Masonry retaining walls
- Existing contours
- To be removed / demolished
- Existing tree to be retained

A	CONCEPT TO CLIENT FOR COMMENT	VF	MD	29-04-13
B	AMENDED DUE TO CLIENT COMMENTS	VF	MD	15-05-13
C	REVISED ARCHITECTURALS INSERTED	VF	MD	15-05-13
D	PLANTING UPDATED - FOR COMMENT	MD	MD	03-06-13
E	FINALISED - FOR COMMENT	MD	MD	06-06-13
F	FINAL AMENDMENTS - FINALISED FOR DA	MD	MD	07-06-13

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14-18 AUBURN STREET WOLLONGONG

ESH HOLDINGS P/L & EB PROPERTY P/L

MIXED USE DEVELOPMENT

LANDSCAPE CONCEPT - GROUND LEVEL

1:100 @ A1	DA	L - 01	
VF	MD	07-06-13	F

LEVEL 2 PLANT SCHEDULE Prepared by ecodesign Pty Ltd

SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	POT SIZE	MATURE SIZE
Az	Alpinia zerumbet 'Green Shell'	Green Shell Ginger	16	200mm	1.5-2.5m
Cl	Chrysalidocarpus lutescens	Golden Cane Palm	12	25L	3m
Cdb	Corcyline Designer Burgundy	Clumping Corcyline	4	25L	1m
Gaf	Gardenia augusta florida	Florida Gardenia	1		0.8m
Mpm	Murraya paniculata 'Min a-min'	Dwarf Orange Jessamine	39	200mm	0.5m
Px	Phoedenaton 'Xanadu'	Phoedenaton	28	200mm	0.5m

LEGEND

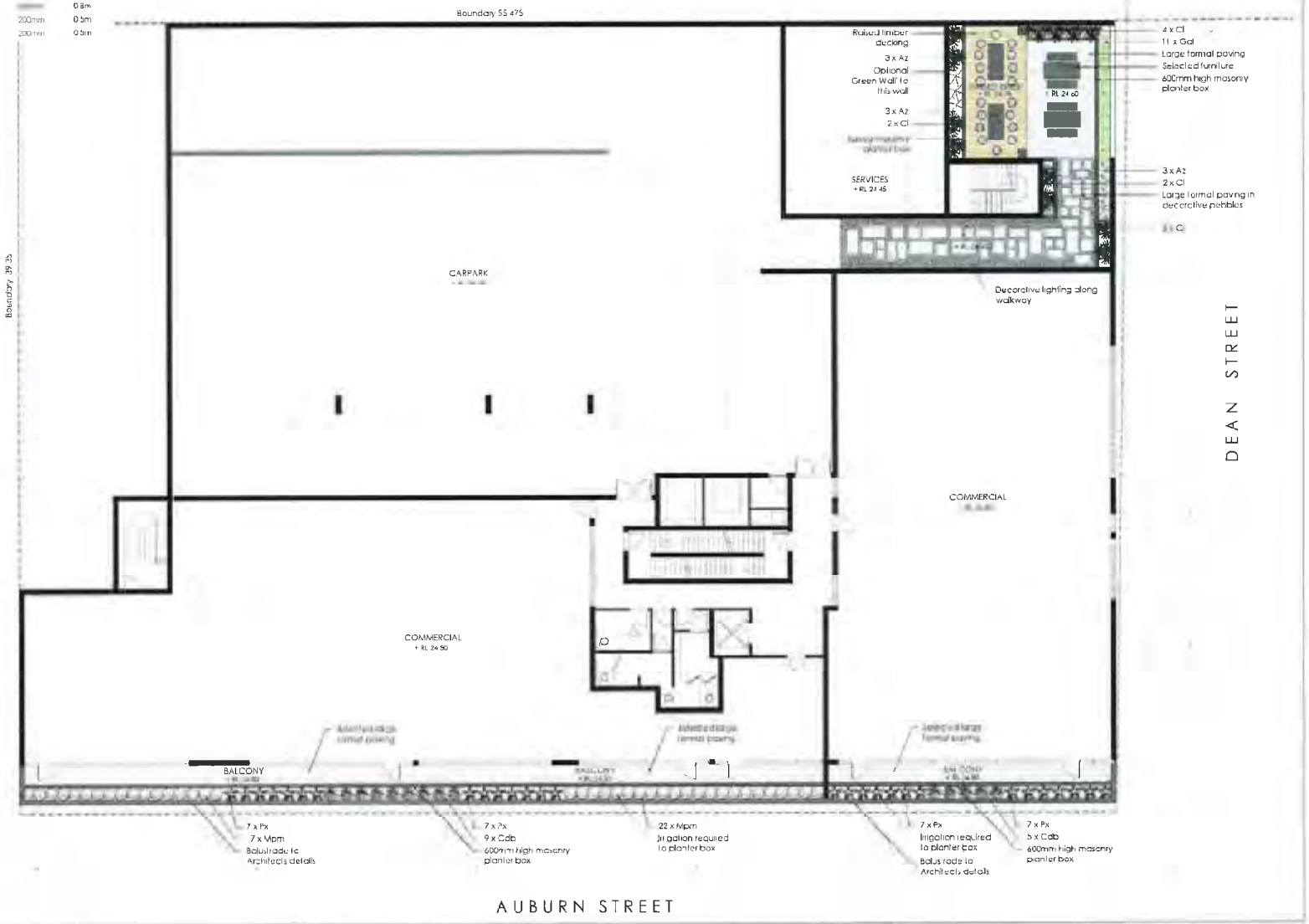
- Proposed trees - refer to plant schedule
- Proposed shrubs, accents & grasses - refer to plant schedule
- Proposed levels
- Proposed top Of Wall levels
- Boundary
- Existing tree to be retained

INDICATIVE IMAGES




BREAKOUT AREA

- Mixture of hard surfaces raised timber paving and pebbles
- Shade tolerant plants to soften walls in planter boxes
- Furniture for sitting relaxing eating
- Selected wall art to with wall lights to brighten space
- Potential for a Green Wall



	DESCRIPTION	DRAWN	CHKD	DATE
A	CONCEPT TO CLIENT FOR COMMENT	VF	MD	29-04-13
B	AMENDED DUE TO CLIENT COMMENTS	VF	MD	15-05-13
C	REVISED ARCHITECTURALS INSERTED	VF	MD	15-05-13
D	PLANTING UPDATED - FOR COMMENT	MD	MD	03-06-13
E	FINALISED - FOR COMMENT	MD	MD	06-06-13
F	FINAL AMENDMENTS - FINALISED FOR DA	MD	MD	07-06-13

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14-18 AUBURN STREET WOLLONGONG

ESH HOLDINGS P/L & EB PROPERTY P/L

MIXED USE DEVELOPMENT

LANDSCAPE CONCEPT PLAN - LEVEL 2

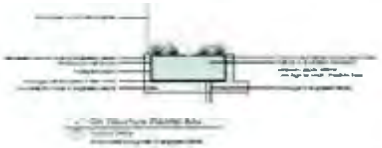
1:100 @ A1	DA	L - 02	
VF	MD	07-06-13	F

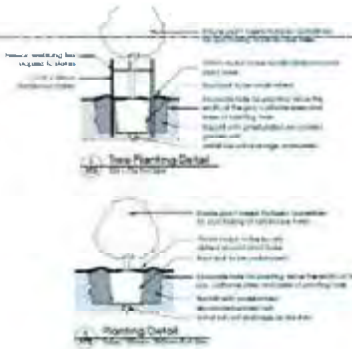
PODIUM LEVEL PLANT SCHEDULE — Prepared by ecodesign Pty Ltd

SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	POT SIZE	MATURE SIZE
Ac					
Cfl					
Cfd					
Cdl					
Cbl					
Cdb					
Cyg					
Cs					
Gaf					
Lla					
Llw					
Mlg					
Mfs					
Pxb					
Px					
Ol					
Ojn					
Re					
Vhb					

LEGEND

- Proposed trees - refer to plant schedule
- Proposed accents & grasses - refer to plant schedule
- Proposed shrubs - refer to plant schedule
- Proposed groundcover and grasses - refer to plant schedule
- Proposed levels
- Proposed Top Of Wall levels
- Boundary
- Masonry walls
- Decorative privacy screening





INDICATIVE CONCEPT IMAGES

INDICATIVE CONCEPT IMAGES

	DESCRIPTION	DRAWN	CHK	DATE
A	CONCEPT TO CLIENT FOR COMMENT	VF	MD	29-04-13
B	AMENDED DUE TO CLIENT COMMENTS	VF	MD	15-05-13
C	REVISED ARCHITECTURALS INSERTED	VF	MD	15-05-13
D	PLANTING UPDATED - FOR COMMENT	MD	MD	03-06-13
E	FINALISED - FOR COMMENT	MD	MD	06-06-13
F	FINAL AMENDMENTS - FINALISED FOR DA	MD	MD	07-06-13
G	ARCHITECTURALS REVISED - FOR DA	BT	MD	13-06-14

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14-18 AUBURN STREET WOLLONGONG

ESH HOLDINGS P/L & EB PROPERTY P/L

MIXED USE DEVELOPMENT

LANDSCAPE CONCEPT - LVL 7 PODIUM

1:100 @ A1	DA	L - 03	
BT	MD	13-06-14	G

LEGEND

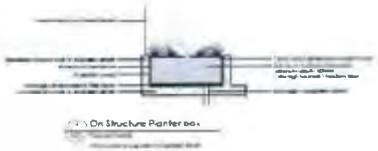
- Proposed trees - refer to plant schedule
- Proposed accents & grasses - refer to plant schedule
- Proposed shrubs - refer to plant schedule
- Proposed groundcovers and grasses - refer to plant schedule
- Proposed levels
- Proposed Top Of Wall levels
- Boundary
- Masonry walls
- Decorative privacy screening

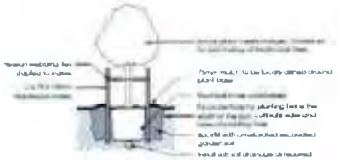
INDICATIVE CONCEPT IMAGES








On Structure Planter box


Tree Planting Detail


Planting Detail

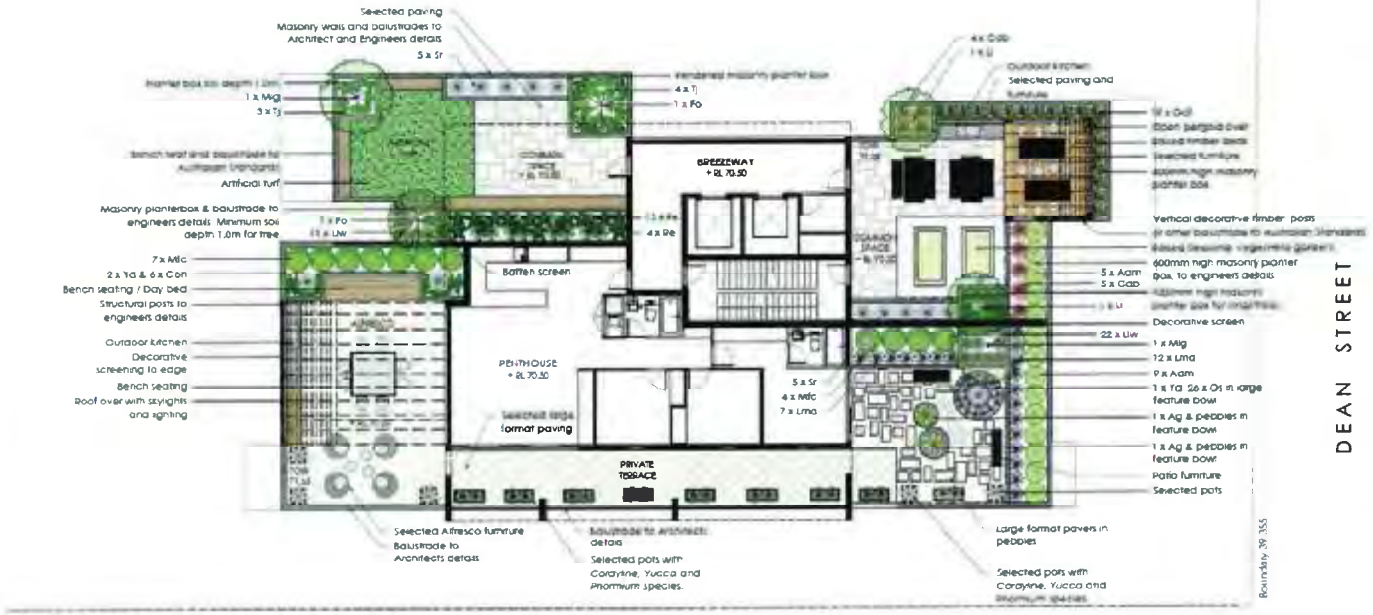
ROOFTOP GARDENS

COMMUNAL AREA

- Deck/entertaining area
- BBQ area
- Artificial turf area
- Seasonal Herb and Vegetable gardens
- Raised garden beds with hard plants and small/medium feature trees
- Paving, Pebbles and Timber decking
- Rendered masonry planter boxes

PRIVATE AREA

- Entertaining area with outdoor kitchen
- Rendered Masonry planter to boundaries
- Eastern Terrace selected pots to not obstruct too much view through glass Balustrades
- North East corner Pebble garden with small feature tree with large feature rock



LEVEL 17 PLANT SCHEDULE Prepared by ecodesign Pty Ltd

CODE	BOTANICAL NAME	COMMON NAME	QUANTITY	POT SIZE	MATURE SIZE
Aam					
Ag					
Con					
Cdb					
Fc					
Gaf					
Ll					
Lma					
Liw					
Mlg					
Mlc					
Os					
Px					
Re					
Sr					
Tj					
Yd					

ISSUE	DESCRIPTION	DRAWN	CHKD	DATE
A	CONCEPT TO CLIENT FOR COMMENT	VF	MD	29-04-13
B	AMENDED DUE TO CLIENT COMMENTS	VF	MD	15-05-13
C	REVISED ARCHITECTURALS INSERTED	VF	MD	16-05-13
D	PLANTING UPDATED - FOR COMMENT	MD	MD	03-06-13
E	FINALISED - FOR COMMENT	MD	MD	06-06-13
F	FINAL AMENDMENTS - FINALISED FOR DA	MD	MD	07-06-13
G	REVISED ARCHITECTURALS - FOR DA	BT	MD	13-06-13

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14-18 AUBURN STREET WOLLONGONG

ESH HOLDINGS P/L & EB PROPERTY P/L

MIXED USE DEVELOPMENT

LANDSCAPE CONCEPT PLAN - LEVEL 17

SCALE		DRAWING NO.	
1:100 @ A1	DA	L - 04	
BT	MD	13-06-13	G

The reasons for the refusal of the proposed development are:

1 Pursuant to the provisions of Sections 79C(1)(a)(i) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development is inconsistent with the provisions of State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development

   i. Part 2 of the Policy sets out design quality principles for residential flat development. These must be considered in the assessment of the proposal pursuant to clause 30(2)(b) of the Policy. The proposed development is not consistent with the design principles to achieve a good design for the subject property.

2 Pursuant to the provisions of Sections 79C(1)(a)(i) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development is inconsistent with the provisions of Wollongong Local Environmental Plan 2009.

   i. Clause 4.4 - the proposed development exceeds permissible floor space ratio.

   ii. Clause 4.6 – an exception to a development standard has not been submitted.

   iii. Clause 8.1 – the proposed development does not satisfy the objectives for development with the Wollongong City Centre.

   iv. Clause 8.5 – the proposed development does not exhibit design excellence.

3 Pursuant to the provisions of Section 79C(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development does not have regard to the provisions of Chapter D13 of the Wollongong City Council's Development Control Plan 2009 with respect to the following matter:

   a. Clause 2.1 – in light of the FSR non-compliance the proposed development is not considered satisfactory in regards to the building form and character objectives contained within this section.

   b. Clause 6.8 – the balconies do not meet the minimum required area of 12sq.m for private open space

4 Pursuant to the provisions of Section 79C(1)(c) of the Environmental Planning and Assessment Act 1979, the items listed above are considered to be significant non-compliances and variations to such extent cannot be supported by Council. The non-compliances indicate that the proposed development is too large for the subject site and therefore considered to be an over development of the site. In view of the non-compliances outlined in (a) above the site is deemed to be unsuitable for the development proposed.

5 Pursuant to the provisions of Section 79C (1)(e) of the Environmental Planning and Assessment Act 1979 it is considered that in the circumstances of the case, approval of the development is not in the public interest.

Attachment 5 - Compliance Table

Residential Flat Design Code

Standards/controls	*Comment*
Part 1 – Local context	
Residential Flat Building type	
Suitable for site context	Residential flat building (tower apartment)
Amalgamation and Subdivision	
Encouraged	The subject site consists of 3 lots, it is recommended consolidation be required as a condition of consent if the DA is supported
Building Depth	
Max 18m (glass line to glass line) For wider buildings, must demonstrate how satisfactory daylight and natural ventilation are achieved	Level 4-Level 6 17m Level 8 - Level 14 13.5m Northern portion 15m southern Level 15 – 16 15m Level 17m 16m
Building Separation	
Objectives • To ensure that new development is scaled to support the desired area character with appropriate massing and spaces between buildings. • To provide visual and acoustic privacy for existing and new residents. • To control overshadowing of adjacent properties and private or shared open space. • To allow for the provision of open space with appropriate size and proportion for recreational activities for building occupants. • To provide deep soil zones for stormwater management and tree planting, where contextual and site conditions allow. Developments that propose less than the recommended distances apart must demonstrate that daylight access, urban	There is no building immediately adjoining the property that contains either residential or residential levels above two storeys. However the application includes setbacks which cater for future building separation requirements on adjoining site as they are at the 50% of the required rate. As indicated below:

Standards/controls	*Comment*
form and visual and acoustic privacy has been satisfactorily achieved.	
Rule of thumb Between adjoining sites: • Up to four storeys/12m – 12m between habitable rooms/balconies – 9m between habitable rooms/balconies and non-habitable rooms – 6m between non-habitable rooms	The building is mixed use and the commercial/retail component is located between the ground floor and the 12m height. There is no residential below 12m.
• Five to eight storeys/up to 25m: – 18m between habitable rooms/balconies – 13m between habitable rooms/balconies and non habitable rooms – 9m between non-habitable rooms • Nine storeys and above/over 25m - 24m between habitable/balconies - 18m between habitable and non - 12m to non-habitable • Allow zero building separation in appropriate contexts such as in urban areas between street wall building types (party walls)	Whilst the building between 12m and 25m has a 0m setback on the Auburn and Dean Street frontage which is in response to the urban context. The urban context encourages 0m setbacks up to a street frontage height of 24m. Components of the building that are not located on the boundary are setback 17.5m at the closet point and therefore satisfy building separation given the 50% requirement. Above 25m the building is setback 12m to both the west and southern boundary. This equates to 50% of the required 24m and such building separation for future development should be compliant.
Street setbacks	
0m	Ground Floor Dean Street – 1.3m to building 0m to ramp Auburn Street – 0m to stairs - 0.5m to ramp – 4m to building Level 1 Dean Street – 0m tappers greater Auburn Street – 0.5m to glass line 0m to pylons Level 2 Dean Street – 0m Auburn Street -0.5m to balcony planters and 2.4m to building Residential/Commercial Level 3 Dean Street – 0m to balcony and building Auburn Street – 0m to balcony and building

Standards/controls	*Comment*
	Commercial Levels 4- 6 Dean Street – 0m to balcony and building Auburn Street – 0m to balcony and building Level 7 Open Landscaped podium Level 8 - 13 Dean Street – 4m to balcony – 5.8 to building Auburn Street – 4m to balcony & building Level 14 Dean Street – 4m to balcony – 5.8 to building Auburn Street – 4m to balcony & building Level 15-16 Dean Street – 4m balcony 5.8m to building Auburn Street – 4m to balcony – 6.3m to building Level 17 Dean Street – 5.8m to COS – 8.1m balcony, 16.2m to building Auburn Street – 4m to balcony – 6.3m to building
Side and rear setbacks	
Objectives • To minimise the impact of development on light, air, sun, privacy, views and outlook for neighbouring properties, including future buildings. • Maintain deep soil zones • Maximise building separation to provide visual and acoustic privacy Where setbacks are limited by lot size and adjacent buildings, "step in" the plan to provide internal courtyards and limit the length of walls facing boundaries	Street Frontage height Ground Floor West – 0m South – 0m steps backs to 7.5m Level 1 West – 0m South – 0m steps back to 7.5m Level 2 West - 0m South - 0m steps back to 7.5m Level 3 West - 0m South - 0m steps back to 14.5m Residential Level 4 – 6 West – 0m to balcony & building Extends to 17.5m to balcony South – 0m to balcony & building Level 7 Landscape podium

Standards/controls	*Comment*
	Above Street Frontage Height Level 8 - 12 West – 12m to balcony & building South - 14m to balcony & building Above 45m Level 13 & 14 West – 14m to balcony & building South - 14m to balcony – 14m to building Level 15-16 West - 17.5m to balcony and building South – 14m to balcony – 15.5m to building Level 17 West – 17.6m to COS – 20.4m to building South – 15.5m to balcony – 22m to building
Floor space ratio	
Test the desired built form outcome against FSR to ensure consistency with other building envelope controls	The application proposes an FSR of 4.719:1 which is greater than the maximum allowable of 4.25:1. This equates to an additional 11% or 1,018.25sq.m of GFA. The FSR is non-compliant in regards to the WLEP2009 and a variation of 11% is not acceptable.
Part 2 – Site design	
Deep Soil Zone	
The rule of thumb is for a minimum of 25% of the open space area of site to be a deep soil zone.	The site is located within the city core and as such allows for boundary to boundary commercial development. Deep soil zones within the commercial core are not required. Podium planting is required instead.
Fences and walls	
Compatible with existing street character. Delineate public and private domain. Select durable materials. Enhance open spaces by incorporating planter boxes, seats, BBQs etc.	The subject site is located within the commercial core. The ground floor is to be used entirely for commercial/retail activities and car parking. At this level there is no delineation of public and private domains required. The proposal complies.
Landscape design	
To add value to residents' quality of life within the development in the forms of privacy, outlook and views.	Landscape plan has been provided, and reviewed by Council's Landscape Officer. It is satisfactory and provides for a range of different areas and types of spaces including dense planting

Standards/controls	*Comment*
Improve amenity of open space. Contribute to streetscape character and public domain. Improve energy efficiency & solar efficiency of dwellings and private open spaces. Landscape to contribute to site's characteristics. Contribute to water and stormwater efficiency. Provide sufficient depth of soil above slabs to enable growth of mature trees. Minimise maintenance.	within podium.
<u>Open Space</u>	
The area of communal open space (includes landscaping) should generally be at least between 25 and 30% of the site area. Larger sites and brownfield sites may have potential for more than 30%. Where developments are unable to achieve the recommended communal open space, such as those in dense urban areas, they must demonstrate that residential amenity is provided in the form of increased private open space and/or in a contribution to public open space. The minimum recommended area of private open space for each apartment at ground level or similar space on a structure, such as a podium or car park, is 25m^2; the minimum preferred dimension in one direction is 4 metres	<u>Communal Open Space</u> Landscaped level 7 Podium has an area of 1,109sq.m Landscaped Rooftop 151sq.m Total – 1,260sq.m Site Area – 2,171sq.m Equates to 58%
<u>Orientation</u>	
Plan the site to optimise solar access by: ▪ positioning and orienting buildings to maximise north facing walls where possible ▪ providing adequate separation within the development and to adjacent buildings Select building types or layouts which	It is considered that the proposed building with the L-shape allowing for adequate solar access to the existing properties to the south and is considered acceptable.

Standards/controls	*Comment*
respond to the streetscape while optimising solar access. Where streets are to be edged and defined by buildings, design solutions include: ▪ align buildings to the street on east-west streets ▪ use courtyards, L-shaped configurations and increased setbacks to northern (side) boundaries on north-south streets. ▪ Optimise solar access to living spaces and associated private open spaces by orienting them to the north. Detail building elements to modify environmental conditions, as required, to maximise sun access in winter and sun shading in summer.	
<u>Planting on Structures</u>	
Recommended plant sizes are provided for varying situations.	Podium planting proposed in planter beds. Council's Landscape Officer has reviewed the landscape plan and has no objection in relation to this aspect of the landscaping works. The proposal complies.
<u>Stormwater management</u>	
• To minimise the impacts of residential development and associated works on the health and amenity of natural waterways. • To preserve existing topographic and natural features, including watercourses and wetlands. • To minimise the discharge of sediment and other pollutants to the urban stormwater drainage system during construction activity.	Council's Stormwater Engineer has reviewed the proposed application and raised no objection. Conditions have been provided if the application was to be favourably viewed.
<u>Safety</u>	
The rule of thumb is that a formal crime risk assessment be carried out for residential developments of over 20 new dwellings.	The proposal has been reviewed by Council's SCAT.
<u>Visual privacy</u>	
• To provide reasonable levels of privacy externally and internally, during the day and at night • To maximise outlook and views from principal rooms and private	Building layout has been designed to minimise opportunities for direct overlooking. Balconies are sited such that overlooking between balconies is

Standards/controls	*Comment*
open space without compromising visual privacy.	not possible. The proposal complies.
Building entry	
• To create entrances which provide a desirable residential identity for the development. • To orient the visitor • To contribute positively to the streetscape and building façade design Provide as direct a physical and visual connection as possible between street and building entry. Provide safe and secure access Provide equal access Provide separate entries for vehicles and pedestrians Appropriate design and location of mail boxes	Proposed building entry is located on the ground level. Entry is reasonably well defined between retail and commercial tenancies. Entry is safe. It is assumed that key control will be required. Access is level. Access from adaptable parking spaces within the basement will be via the lift. Conditions will be required to be imposed in relation to compliance with AS 4299. Ramp to basement is separate to pedestrian entry. Mail boxes are appropriately located adjacent to the main pedestrian entry and close to the frontage. The proposal is considered satisfactory.
Parking	
• To minimise car dependency for commuting and recreational transport use and to promote alternative means of transport-public transport, bicycling and walking. • To provide adequate car parking for the building's users and visitors, depending on building type and proximity to public transport.	All parking is provided behind the building or below ground. A total of 143 parking spaces have been provided. The parking complies with the WDCP 2009.
Pedestrian Access	
Identify the access requirements from the street or car parking area to the apartment entrance. Follow the accessibility standard set out in AS1428 (part 1 and 2), as a minimum Provide barrier free access to at least 20% of dwellings in the development	Pedestrian access available from the street. Pedestrian access between car parking level and the rest of the building is via the fire stairs or lift. Barrier free access appears to be available to all units. 9 units are nominated as adaptable units. The proposal complies.
Vehicle access	
• Generally limit the width of driveways to a maximum of 6	Proposed driveway width 6.0 metres.

Standards/controls	*Comment*
metres. • Locate vehicle entries away from main pedestrian entries and on secondary street frontages.	Vehicular access separate from pedestrian access points. The proposal complies.
Part 3 – Building Design	
Apartment layout	
• Single-aspect apartments should be limited in depth to 8m from a window • Back of a kitchen should be no more than 8m from a window • The width of cross-over or cross-through apartments over 15 metres deep should be 4 metres or greater to avoid deep narrow apartment layouts • Providing open space in the form of a balcony, a terrace, a courtyard or a garden for every apartment • Locating main living areas adjacent to main private open space. • Include adequate storage space. • Buildings not meeting the minimum standards listed above, must demonstrate how satisfactory daylighting and natural ventilation should be achieved, particularly in relation to habitable rooms (see Daylight Access and Natural Ventilation)	The single aspect units have a maximum depth of 8m All kitchens comply. Units all have a width greater than 4m. All units have satisfactory solar access and natural ventilation. The proposal complies.
Apartment mix	
Provide a variety of apartment types between studio-, one-two-, three- and three plus-bedroom apartments, particularly in large apartment buildings. Variety may not be possible in small apartment buildings, for example, up to six units. Refine the appropriate apartment mix for a location by: • Considering population trends in the future as well as present market demands • Noting the apartments' location in relation to public transport, public facilities, employment areas,	47 x 1 bedroom 34 x 2 bedroom units 7 x 3 bedroom units Total = 88 Mix is considered to be appropriate All apartments accessible via lift. 9 units identified as adaptable.

Standards/controls	*Comment*
schools and universities • Locate a mix of one- and three bedroom apartments on the ground level where accessibility is more easily achieved for disabled, elderly people or families with children. • Optimise the number of accessible and adaptable apartments and cater for a wide range of occupants. Australian Standards are only a minimum. • Investigate the possibility of flexible apartment configurations, which support change in the future (see Flexibility).	
Balconies	
• Provide primary balconies with a minimum depth of 2m. • Developments that seek to vary from the minimum standards must demonstrate negative impacts from noise, wind can not be mitigated with design solutions.	Level 3-6 Minimum depth of 2m and minimum of 8sq.m Level 8-14 The balconies have an area that ranges from 14sq.m to 37sq.m all with a minimum depth of 2.4m or larger. Level 15-16 The balconies have an re of 17sq.m to 43sq.m with a depth of 2.4m or larger Level 17 The penthouse has a balcony of 162sq.m with a depth of 2.4m and greater.
Ceiling heights	
The following recommended dimensions are measured from finished floor level (FFL) to finished ceiling level (FCL). These are minimums only and do not preclude higher ceilings, if desired. -in mixed use buildings: 3.3m minimum for ground floor retail or commercial and for first floor residential, retail or commercial to promote future flexibility of use -in residential flat buildings in mixed use areas: 3.3m minimum for ground floor to promote future flexibility of use -in residential flat buildings or other residential floors in mixed use	Ceiling heights are 2.7m or more to all rooms. Complies

Standards/controls	*Comment*
buildings: - in general, 2.7m minimum for all habitable rooms on all floors, 2.4 metres is the preferred minimum for all non-habitable rooms, however 2.25m is permitted. -for two storey units 2.4m minimum for second storey if 50 percent or more of the apartment has 2.7m minimum ceiling heights -for two-storey units with a two-storey void space, 2.4 metre minimum ceiling heights -attic spaces, 1.5 metre minimum wall height at edge of room with a 30 degree minimum ceiling slope. Developments which seek to vary the recommended ceiling heights must demonstrate that apartments will receive satisfactory daylight (eg. shallow apartments with large amount of window area).	
<u>Flexibility</u>	
• To encourage housing designs which meet the broadest range of the occupants' needs as possible. • To promote 'long life loose fit' buildings, which can accommodate whole or partial change of use. • To encourage adaptive re-use.	A mix of unit size and type has been provided appealing to different aspects of the market. All units are physically accessed via lifts. Minimal flexibility built into design. This is considered to be appropriate having regard to the zoning of the site and the character of the neighbourhood. 9 adaptable units are proposed and all units should be accessible.
<u>Ground floor apartments</u>	
• Optimise the number of ground floor apartments with separate entries and consider requiring an appropriate percentage of accessible units. This relates to the desired streetscape and topography of the site. • Provide ground floor apartments with access to private open space, preferably as a terrace or garden.	Located within the commercial core and as such no residential apartments are located on the ground floor
<u>Internal circulation</u>	

Standards/controls	*Comment*
In general, where units are arranged off a double loaded corridor, the number of units accessible from a single core/corridor should be limited to eight. Exceptions may be allowed: • For adaptive re-use buildings • Where developments can demonstrate the achievement of the desired streetscape character and entry response Where developments can demonstrate a high level of amenity for common lobbies, corridors and units (cross over, dual aspect apartments)	Level 3 = 3 units Level 4-6 = 12 units Level 7 podium Levels 8-13 = 6 units Level 14 = 6 units Level 15-16 = 3 Level 17 = 1 unit Levels 4 to 6 have a total of 12 units accessed from a single core. This is not satisfactory.
<u>Mixed use</u>	
Complementary uses Consider building depth and form in relation to each uses requirements for servicing and amenity Design legible circulation systems which ensure safety Ensure building positively contributes to public domain Address acoustic requirements Recognise ownership/lease patterns and separate requirements for BCA assessment	The commercial use is separate to the residential uses. The operation of the commercial component should not interfere with the residential. Satisfactory
<u>Storage</u>	
In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates: ▪ studio apartments 6m^3 ▪ one-bedroom apartments 6m^3 ▪ two-bedroom apartments 8m^3 three-plus bedroom apartments 10m^3	All units have been provided with a storage area within the basement car park. Each of the storage areas has sufficient capacity. Complies
<u>Acoustic privacy</u>	
Use site and building layout to maximise potential for acoustic privacy by providing adequate building separation within the development and from neighbouring buildings. Arrange apartments within a	Suitable separation distances provided Like areas within units generally abut. Most units appear to be

Standards/controls	*Comment*
development to minimise noise transition between flats. Design internal apartment layout to separate noisier spaces from quieter spaces. Resolve conflicts between noise, outlook and views. • Reduce noise transmission from common corridors or outside the building by providing seals at entry doors.	reasonably well designed with regard to acoustic privacy. As above. Details of entry seals are not provided. This could be dealt with by a condition of consent is the proposal is approved. Complies.
<u>Daylight access</u>	
Living Rooms and private open spaces for at least 70% of apartments in a development should receive a minimum of three hours direct sunlight between 9.00am and 3.00pm in mid winter. In dense urban areas a minimum of two hours may be acceptable Limit the number of single aspect apartments with a southerly aspect (SW-SE) to a maximum of 10 percent of the total units proposed. Developments which seek to vary from the minimum standards must demonstrate how site constraints and orientation prohibit the achievement of these standards and how energy efficiency is addressed (see Orientation and Energy Efficiency).	Applicant indicates that 80.2% of units will receive a min of three hours sunlight between 9am and 3pm. Applicant indicates that all balconies will receive sufficient solar access in accordance with this requirement. There are 0 single aspect south facing units. Complies
<u>Natural ventilation</u>	
Building depths, which support natural ventilation typically range from 10 to 18 metres. 60% of residential units should be naturally cross-ventilated. 25% percent of kitchens within a development should have access to natural ventilation. Developments, which seek to vary from the minimum standards, must demonstrate how natural ventilation can be satisfactorily be achieved, particularly in relation to habitable rooms.	Building depth measured from front to rear exceeds 18m. east-west depth variable – up to 22.5m which is does not met to eh 18m however the maximum depth of the unit is 7.5m and therefore achieves the natural; ventilation requirements. The applicant has indicated that 100% of units are cross ventilated. This is further discussed within the report. 28% of kitchens have access to natural ventilation. All units will receive sufficient solar access and are all naturally ventilated. The proposal complies.

Standards/controls	*Comment*
Awnings and signage	
Objectives: Provide shelter for public streets Ensure signage is in keeping with desired streetscape character and with scale, detail and design of the development.	Awnings are proposed over the footpath as they are required by WDCP 2009 No signage is proposed at this stage
Facades	
• To ensure that new developments have facades which define and enhance the public domain and desired street character. • To ensure that building elements are integrated into the overall building form and façade design.	Design is of a reasonably high standard. External finishes appear to be of a high standard. All elevations are reasonably well treated with regard to modulation, articulation and fenestration. This assists in reducing the perception of bulk. Appropriate materials will be used. The proposal complies.
Roof design	
Relate roof design to the desired built form. Design the roof to relate to the size and scale of the building, the building elevations and three dimensional building form. Design roofs to respond to the orientation of the site, eg. by using eaves and skillion roofs to respond to sun access. Minimise visual intrusiveness of service elements by integrating them into the design of the roof. • Support use of roofs for quality open space in denser urban areas.	Most of the proposed roof is flat, and complies with the maximum height limits. This is considered to be appropriate with regard to the design of other buildings within with precinct. Service elements are not incorporated into the roof design. The proposal complies.
Energy efficiency	
Incorporate passive solar design techniques to optimise heat storage in winter and heat transfer in summer. Improve the control of mechanical space heating and cooling. Provide or plan for future installation of photovoltaic panels. Improve efficiency of hot water	BASIX certificate submitted in relation to the units. Units are designed with dual aspect, or minimum depth and so have solar access and cross ventilation. This will assist in reducing energy usage through mechanical heating and cooling. BASIX certificate requires use of efficient appliances. The proposal complies.

Standards/controls	*Comment*
systems. Reduce reliance on artificial lighting. Maximise efficiency of household appliances.	
Maintenance	
Design windows to enable cleaning from inside the building, where possible. Select manually operated systems, such as blinds, sunshades, pergolas and curtains in preference to mechanical systems. Incorporate and integrate building maintenance systems into the design of the building form, roof, and façade. Select appropriate landscape elements and vegetation and provide appropriate irrigation systems. For developments with communal open space, provide a garden maintenance and storage area, which is efficient and convenient to use and is connected to water and drainage.	Some of the windows will be accessible from either inside the building or from balconies. Council's Landscape Officer is satisfied generally with planting, subject to some changes being made. Conditions have been recommended in this regard should the application be favourably viewed. No details have been provided in relation to maintenance of the podium planting. If properly planted, these will not require significant maintenance works. The proposal considered acceptable.
Waste management	
Supply waste management plans as part of the development application.	Waste storage area is provided at ground floor level. Council traffic section has reviewed the arrangement is satisfied. The proposal complies.
Water conservation	
• To reduce mains consumption of potable water. • To reduce the quantity of stormwater run off.	Roofing materials – metal deck roof sheeting. BASIX certificate makes provision for rainwater collection and reuse on site. The proposal complies.

WOLLONGONG DEVELOPMENT CONTROL PLAN 2009

Chapter D13

Objectives/controls	*Comment*	*Compliance*
2.1 General		
Building form and character refers to the individual elements of building design that collectively contribute to the character and	It is considered that the development complies with the objectives of the zone and complies with the height. However	No

Objectives/controls	*Comment*	*Compliance*
appearance of the built environment. The Wollongong City Centre LEP includes provisions for land use, building heights and sun access planes, floor space ratio and design excellence. The development provisions in this section of the DCP on building form are intended to encourage high quality design for new buildings, balancing character of Wollongong with innovation and creativity. The resulting built form and character of new development should contribute to an attractive public domain in central Wollongong and produce a desirable setting for its intended uses.	does not comply with the FSR requirements contained within the WLEP 2009.	
2.2 Building to street alignment and street setbacks		
Commercial Core Build to the street alignment or specified setback with 4m minimum further setback above street frontage height. Balconies may project up to 600 mm into front building setbacks, provided the cumulative width of all balconies at that particular level totals no more than 50% of the horizontal width of the building façade, measured at that level. Balconies are not permitted to encroach above the public road reserve. The Commercial Core, Mixed Use (city edge) and Enterprise Corridor zones are subject to requirement for corner properties to provide a 6m x 6m corner splay.	Street Frontage height Ground Floor Dean Street – 1.3m to building)m to ramp Auburn Street – 0m to stairs - 0.5m to ramp – 4m to building Level 1 Dean Street – 0m tappers greater Auburn Street – 0.5m to glass line 0m to pylons Level 2 Dean Street – 0m Auburn Street -0.5m to balcony planters and 2.4m to building Residential Level 3 Dean Street – 0m to balcony and building Auburn Street – 0m to balcony and building Levels 4- 6 Dean Street – 0m to balcony and building Auburn Street – 0m to balcony and building Level 7 Open Landscaped podium Above Street Frontage Height Level 8 - 13 Dean Street – 4m to balcony – 5.8 to building Auburn Street – 4m to balcony &	Yes

Objectives/controls	*Comment*	*Compliance*
	building Level 14 Dean Street – 4m to balcony – 5.8 to building Auburn Street – 4m to balcony & building Level 15-16 Dean Street – 4m balcony 5.8m to building Auburn Street – 4m to balcony – 6.3m to building Level 17 Dean Street – 5.8m to COS – 8.1m balcony, 16.2m to building Auburn Street – 4m to balcony – 6.3m to building	
2.3 Street frontage heights in commercial core		
The street frontage height of buildings in the Commercial Core are not to be less than 12m or greater than 24m above mean ground level on the street front as shown in Figure 2.3.	The street frontage height is 24m however due to the slope of the land this extends to 26m along the Auburn Street frontage.	No - Satisfactory
2.4 Building depth and bulk		
The maximum floorplate sizes and depth of buildings are Residential and serviced apartments in outside Commercial Core above 24m height is 18m and 900m2	Above the 24 street frontage height the building depth and floor plate size complies	Yes
2.5 Side and rear building setbacks and building separation		
Commercial Core Up to Street frontage height = 0m	Street Frontage height Ground Floor West – 0m South – 0m steps backs to 7.5m Level 1 West – 0m South – 0m steps back to 7.5m Level 2 West - 0m South - 0m steps back to 7.5m Level 3 West - 0m South - 0m steps back to 14.5m	Yes

Objectives/controls	*Comment*	*Compliance*
Residential Uses (habitable rooms) between street frontage height and 45m = 12m All uses (including non-habitable residential) between street frontage height and 45m = 6m All use above 45m = 14m	<u>Residential</u> <u>Level 4 – 6</u> West – 0m to balcony & building Extends to 17.5m to balcony South – 0m to balcony & building <u>Level 7</u> Landscape podium <u>Above Street Frontage Height</u> <u>Level 8 - 12</u> West – 12m to balcony & building South - 14m to balcony & building <u>Above 45m</u> <u>Level 13 & 14</u> West – 14m to balcony & building South - 14m to balcony – 14m to building <u>Level 15-16</u> West - 17.5m to balcony and building South – 14m to balcony – 15.5m to building <u>Level 17</u> West – 17.6m to COS – 20.4m to building South – 15.5m to balcony – 22m to building	Yes Yes Yes
<u>2.6 Mixed used buildings</u>		
Provide flexible building layouts which allow variable tenancies or uses on the first two floors of a building above the ground floor. Minimum floor to ceiling heights are 3.3 metres for commercial office and 3.6 metres for active public uses, such as retail and restaurants in the B3 Commercial Core zone.	A flexible floor layout for the commercial space has been provided to allow for two storey retail components. And small and large spaces have been provided Ground floor retail - 5.3m First floor retail/commercial - 3.4m Second Floor commercial – 3.4m Third Floor commercial – 3.4m	Yes

Objectives/controls	*Comment*	*Compliance*
Separate commercial service requirements, such as loading docks, from residential access, servicing needs and primary outlook. Locate clearly demarcated residential entries directly from the public street	Separate spaces have been provided	
2.7 Deep soil zone		
All residential developments must include a deep soil zone. The deep soil zone shall comprise no less than 15% of the total site area preferably provided in one continuous block and shall have a minimum dimension (width or length) of 6 metres. For residential components in mixed use developments in the Commercial Core, Mixed Use (city edge) and Enterprise zones, the amount of deep soil zone may be reduced commensurate with the extent of non-residential uses. Where non-residential components result in full site coverage and there is no capacity for water infiltration, the deep soil component must be provided on structure. Where deep soil zones are provided, they must accommodate existing mature trees as well as allowing for the planting of trees/shrubs that will grow to be mature trees.	Within the commercial core the deep soil cannot be provided on the ground floor as the commercial can be building boundary to boundary. A deep soil zone is being provided on the podium level.	Yes
2.8 Landscape design		
	Council's landscape section has assessed the application and raise no objection to the proposal and has provided conditions if the application was to be favourably viewed.	Yes
2.9 Planting on structures		
Provide sufficient soil depth and area to allow for plant establishment and growth.	Council's landscape section has assessed the application and raise no objection to the proposal and has provided conditions if the application was to be favourably viewed.	Yes
2.10 Sun access planes		
Relevant height and setback controls for development adjacent to key public spaces apply.	The subject site is not located adjoining or within the vicinity of a key site	Yes

Objectives/controls	*Comment*	*Compliance*
2.11 Development on classified roads		
Consent must not be granted to the development of land that has a frontage to a classified road unless the consent authority is satisfied that: Where practicable, vehicular access to the land is provided by a road other than the classified road.	The site is not located on a classified road	N/A

3 Pedestrian amenity

Objectives/controls	*Comment*	*Compliance*
3.1 General		
Pedestrian amenity incorporates all those elements of individual developments that directly affect the quality and character of the public domain. The pedestrian amenity provisions are intended to achieve a high quality of urban design and pedestrian comfort in the public spaces of the city centre. The pedestrian environment provides people with their primary experience of and interface with the city. This environment needs to be safe, functional and accessible to all. It should provide a wide variety of opportunities for social and cultural activities. The pedestrian environment is to be characterised by excellence of design, high quality materials and a standard of finish appropriate to a regional city centre.	It is considered that the development contributes to high pedestrian amenity	Satisfactory
3.2 Permeability		
Where possible, existing dead end lanes are to be extended through to the next street as redevelopment occurs. New through site links should be connected with existing and proposed through block lanes, shared zones, arcades and pedestrian ways and opposite other through site links	The site is not identified as requiring permeability being by way of through links	N/A
3.3 Active street frontages		
In commercial and mixed use development, active street fronts are encouraged in the form of non-residential uses on ground level. Active street fronts in the form of non-residential uses on ground level are required along streets, lanes and through site links shown in Figure 3.4 for all buildings in the Commercial Core and Tourist zones, and for mixed use buildings in the Mixed Use (city edge) and Enterprise zones. Residential developments are to provide a clear	The development proposes an active street frontage by way of commercial/retail located on the ground floor. Clearly delineated residential entry points are proposed.	Yes

street address and direct pedestrian access off the primary street front, and allow for residents to overlook all surrounding streets.		
3.4 Safety and security		
Ensure that the building design allows for casual surveillance of accessways, entries and driveways. Avoid creating blind corners and dark alcoves that provide concealment opportunities in pathways, stairwells, hallways and carparks. Provide entrances which are in visually prominent positions and which are easily identifiable, with visible numbering. Provide adequate lighting of all pedestrian access ways, parking areas and building entries. Such lighting should be on a timer or movement detector to reduce energy consumption and glare nuisance. Provide security access controls where appropriate.	Council's Safe Community Action Team assessed the application and comments were provided. The applicant amended some components of the application to provide for better safety and is considered satisfactory in this regard.	Yes
3.5 Awnings		
Continuous street frontage awnings are to be provided for all new developments as indicated in Figure 3.6. Awning design must match building facades and be complementary to those of adjoining buildings.	A continuous awning is being provided across the Dean Street frontage of the property	Yes
3.6 Vehicular footpath crossings		
In all other areas, one vehicle access point only (including the access for service vehicles and parking for non-residential uses within mixed use developments) will be generally permitted. Where practicable, vehicle access is to be from lanes and minor streets rather than primary street fronts or streets with major pedestrian and cyclist activity. Where practicable, adjoining buildings are to share or amalgamate vehicle access points. Internal on-site signal equipment is to be used to allow shared access. Where appropriate, new buildings should provide vehicle access points so that they are capable of shared access at a later date.	Two vehicle entry points are being proposed and one is large then the maximum 5.4m provisions. This issue has been discussed further within the report.	No-variation sought
3.7 Pedestrian overpasses, underpasses and encroachments		
New overpasses over streets will generally not be approved. In exceptional circumstances, new overpasses over service lanes may be considered by the consent authority subject to assessment of		N/A

impacts on safety and crime prevention, streetscape amenity and activation of the public domain. In such circumstances, overpasses are to be fully glazed, not greater than 6 metres wide or more than one level high. Refer to AS 5100.1 – 2004. Longitudinal development under the road reserve is not permitted. The siting of basement carparks beneath the road reserve is not permitted for private developments. Stratum road closures for this purpose will not be permitted. Underpasses may be considered by the consent authority for direct connection under adjacent streets to railway stations: i) Where they would substantially improve pedestrian safety and accessibility, and ii) Incorporate active uses, particularly at entry and exit points.		
3.8 Building exteriors		
Articulate facades so that they address the street and add visual interest. External walls should be constructed of high quality and durable materials and finishes with 'selfcleaning' attributes, such as face brickwork, rendered brickwork, stone, concrete and glass. Finishes with high maintenance costs, those susceptible to degradation or corrosion from a coastal or industrial environment or finishes that result in unacceptable amenity impacts, such as reflective glass, are to be avoided. Limit opaque or blank walls for ground floor uses to 30% of the street frontage. Maximise glazing for retail uses, but break glazing into sections to avoid large expanses of glass. The design of roof plant rooms and lift overruns is to be integrated into the overall architecture of the building.	It is considered that the building exterior of the building provides for good design and interest. Building alignment and setbacks are appropriate Appropriate material and finishes selection The proportions are acceptable. Building is modulated and well articulated. Variety of materials are used	Yes
3.9 Advertising and signage		
Signs are to be designed and located to: i) Relate to the use of the building, ii) Be visually interesting and exhibit a high level of design quality, iii) Be integrated and achieve a high degree of	None proposed at this stage.	N/A

compatibility with the architectural design of the supporting building having regard to its composition, fenestration, materials, finishes, and colours, and ensure that architectural features of the building are not obscured, iv) Have regard to the view of the sign and any supporting structure, cabling and conduit from all angles, including visibility from the street level and nearby higher buildings and against the skyline, and v) Have only a minimal projection from the building.		
3.10 Views and view corridors		
Existing views shown in located with the view corridor are to be protected to the extent that is practical in the planning and design of development.  	The subject site is located outside of an known view corridor. There is no immediately surrounding property that is affected by loss of views.	Yes

4 Access, parking and servicing

Objectives/controls	*Comment*	*Compliance*
4.1 General		
This section contains detailed objectives and controls on pedestrian access, vehicular access, on-site parking and site facilities, including refuse collection and removal. To satisfy the aims and zoning objectives of the Wollongong LEP 2009, controls in this section aim to: a) Facilitate the development of building design excellence appropriate to a regional city; b) Require parking and servicing provisions to be contained within development sites to an amount	It is considered that the application complies with the requirements of this section of the DCP	Yes

and rate adequate for the economic and sustainable growth of the city centre; c) Provide for safe and secure access; d) Minimise impacts on city amenity, the public domain and streetscape, and e) Ensure that access is provided for the disabled and mobility impaired.		
4.2 Pedestrian access and mobility		
Main building entry points should be clearly visible from primary street frontages and enhanced as appropriate with awnings, building signage or high quality architectural features that improve clarity of building address and contribute to visitor and occupant amenity. The development must provide at least one main pedestrian entrance with convenient barrier free access in all developments to at least the ground floor. The development must provide continuous access paths of travel from all public roads and spaces as well as unimpeded internal access. Building entrance levels and footpaths must comply with the longitudinal and cross grades specified in AS 1428.1:2001, AS/NZS 2890.1:2004 and the Disability Discrimination Act.	The building entry is clearly visible and unobstructed access is available	Yes
4.3 Vehicular driveways and manoeuvring areas		
	Two driveways5.5m and 6m in width are proposed. Council's traffic section have assessed the application and have raised no objection to the location of the driveway	Yes
4.4 On-site parking		
On-site parking must meet the relevant Australian Standard (AS2890.1 2004 – Parking facilities, or as amended). On-site vehicle, motorcycle and bicycle parking is to be provided in accordance with Part E of this DCP. To accommodate people with disabilities, provide a minimum of 1% of the required parking spaces, or minimum of 1 space per development, (whichever is the greater) as an appropriately designated and signed disabled parking space.	Discussed within the E3 chapter within the report. The proposed development provides for 143 parking spaces which comply with the minimum requirements.	Yes

4.5 Site facilities and services		
Mail boxes Provide letterboxes for residential building and/or commercial tenancies in one accessible location adjacent to the main entrance to the development. **Communication structures, air conditioners and service vents** a) Locate satellite dish and telecommunication antennae, air conditioning units, ventilation stacks and any ancillary structures: i) Away from the street frontage, ii) Integrated into the roof scape design and in a position where such facilities will not become a skyline feature at the top of any building, and A master antennae must be provided for residential apartment buildings. This antenna shall be sited to minimise its visibility from surrounding public areas. **Waste (garbage) storage and collection** *General (all development)* All development is to adequately accommodate waste handing and storage on-site. The size, location and handling procedures for all waste, including recyclables, is to be determined in accordance with Council waste policies and advice from relevant waste handling contractors. **Fire service and emergency vehicles** **Utility Services** Development must ensure that adequate provision has been made for all essential services including water, sewerage, electricity and telecommunications and stormwater drainage to the satisfaction of all relevant authorities.	Mailboxes have been provided for within an appropriate location If the application was to be favourably viewed then it could be conditioned for that these provisions are provided for in an appropriate location. The development provides for a garbage room of an appropriate size and location. Adequate service/loading dock has been provided within the development. Council's traffic section reviewed this aspect and raised no objections Adequate provision. Also required to comply with the BCA If the application was to be favourably viewed then it could be conditioned that the adequate arrangement and clearance certificates obtained from relevant utility authorities prior to the release of a construction certificate.	Yes

5 Environmental management

Objectives/controls	*Comment*	*Compliance*
5.1 General		
This section deals with energy efficiency requirements of buildings, water use and conservation, wind and solar impacts and waste management.	It is considered that the building achieves energy efficiency.	Yes
5.2 Energy efficiency and conservation		
Residential New dwellings, including multi-unit development within a mixed use building and serviced apartments intended or capable of being strata titled, are to demonstrate compliance with State Environmental Planning Policy – Building Sustainability Index (BASIX). **Non-Residential** Comply with the Building Code of Australia energy efficiency provisions.	BASIX Certificate has been submitted as part of this application The plans indicate that proposed building complies with Section J of the BCA. A construction certificate cannot be issued without such compliance	Yes
5.3 Water conservation		
Residential New dwellings, including a residential component within a mixed use building and serviced apartments intended or capable of being strata titled, are to demonstrate compliance with State Environmental Planning Policy – Building Sustainability Index (BASIX). ***Non-residential*** Water saving measures are to be incorporated into non-residential building.	A BASIX certificate has been issued for the application The plans indicate that proposed building complies with Section J of the BCA. A construction certificate cannot be issued without such compliance	Yes
5.4 Reflectivity		
a) New buildings and facades should not result in glare that causes discomfort or threatens safety of pedestrians or drivers. Visible light reflectivity from building materials used on facades of new buildings should not exceed 20%. Subject to the extent and nature of glazing and reflective materials used, a Reflectivity Report that analyses potential solar glare from the proposed development on pedestrians or motorists may be required.	A schedule of finishing external materials and colours was submitted with the application. If approved, material reflectivity will be limited to 20% as required by the DCP	Yes
5.5 Wind mitigation		
	Report submitted and considered satisfactory.	Yes

5.6 Waste and recycling		
	Sufficient storage has been supplied within the building for garbage storage. Adequate arrangements for collection have been made that Council's Traffic section has raised no objection.	Yes

6 Residential development standards

Objectives/controls	*Comment*	*Compliance*
6.1 SEPP 65 and residential flat design code		
	RFDC discussed earlier in a table of compliance	Satisfactory
6.2 Housing choice and mix		
To achieve a mix of living styles, sizes and layouts within each residential development, comply with the following mix and size: i) Studio and one bedroom units must not be less than 10% of the total mix of units within each development, ii) Three or more bedroom units must not be less than 10% of the total mix of units within each development, and iii) For smaller developments (less than six dwellings) achieve a mix appropriate to locality. For residential apartment buildings and multi-unit housing, 10% of all dwellings (or at least one dwelling) must be designed to be capable of adaptation for disabled or elderly residents.	44 x 1 bedroom 37 x 2 bedroom units 7 x 3 bedroom units Total = 88 9 Adaptable	Yes
6.3 Dwelling houses		
		N/A
6.4 Multi dwelling housing		
		N/A
6.5 Dual occupancy		
		N/A
6.6 Basement Carparks		
The scale and siting of the basement car park must not impact upon the ability of the development to satisfy minimum landscaping and deep soil zone requirements.	As the development involves ground floor commercial that can be built boundary to boundary no deep soil is being provided within this development.	Yes

Objectives/controls	*Comment*	*Compliance*
6.7 Communal open space		
Developments with more than 10 dwellings must incorporate communal open space. The minimum size of this open space is to be calculated at 5m2 per dwelling. Any area to be included in the communal open space calculations must have a minimum dimension of 5m.	The development contains a total of 88 dwellings which equates to 440sq.m of communal open space. The development provides for a landscaped podium that has an area of 1,1109sq.m for all residents The development also provides for landscaped rooftop for private residents (ie excluding the affordable rental housing) that has an area of 151sq.m Combined this totals 1,260sq.m	Yes
6.8 Private open space		
Private open space must be provided for each dwelling within a residential apartment building in the form of a balcony, courtyard, terrace and/or roof garden. Private open space for each dwelling within a residential apartment building must comply with the following: i) The balcony must have a minimum area of 12m2 open space a minimum depth of 2.4 metres. The primary private open area of at least 70% of the dwellings within a residential apartment building must receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm on June 21.	Private Open Space Level 3 Two units have a balcony of 8sq.m and therefore does not comply Level 4-6 On each floor there are Seven units being a total of 21 units with a balcony smaller than the required 8m and therefore does not comply Level 8-14 The balconies have an area that ranges from 14sq.m to 37sq.m all with a minimum depth of 2.4m or larger. Level 15-16 The balconies have an re of 17sq.m to 43sq.m with a depth of 2.4m or larger Level 17 The penthouse has a balcony of 162sq.m with a depth of 2.4m and greater.	No for Levels 3-6
6.9 Overshadowing		
The design of the development must have regard to the existing and proposed level of sunlight which is received by living areas and private open space areas of adjacent dwellings. Sensitive design must aim to retain the maximum amount of sunlight for adjacent residents. Council will place greatest emphasis on the retention of sunlight within the lower density residential areas. Adjacent residential buildings and their public spaces must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June.	There are no residential buildings surrounding the subject site that is affected by shadows.	Yes

Objectives/controls	*Comment*	*Compliance*
6.10 Solar access		
The living rooms and private open space of at least 70% of apartments should receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm. The number of single aspect apartments with a southerly aspect (south-westerly to south-easterly) is limited to a maximum of 10% of the total number of apartments proposed.	No single aspect south facing apartments From the applications calculation 80.2% of apartments will receive 3 hours of solar access on the 21 June	Yes
6.11 Natural ventilation		
A minimum of sixty percent (60%) of all residential apartments shall be naturally cross ventilated. Twenty five percent (25%) of kitchens within a development must have access to natural ventilation. Where kitchens do not have direct access to a window, the back of the kitchen must be no more than 8m from a window. Single aspect apartments must be limited in depth to 8m from a window	The applicant has indicated that 100% of units receive natural ventilation. Discussed further within the report	Satisfactory
6.12 Visual privacy		
The internal layout of buildings should be designed to minimise any direct overlooking impacts occurring upon habitable rooms and private balcony / open space courtyards, wherever possible by separating communal open space and public domain areas from windows of rooms, particularly sleeping room and living room areas.	It is considered that the application is suitable in regards to visual privacy	Yes
6.13 Acoustic Privacy		
Residential apartments should be arranged in a mixed use building, to minimise noise transition between apartments by locating busy, noisy areas next to each other and quieter areas, next to other quieter areas (eg living rooms with living rooms and bedrooms with bedrooms);.	Like uses have been arranged in similar areas It is not anticipated that the development will generate significant noise. An acoustic report has also been submitted in regards to the impact of the railway and the occupants within.	Yes
6.14 Storage		
For residential apartment buildings provide a secure space to be set aside exclusively for storage as part of the basement.	Storage has been provided for all units at the rear of the car spaces	Yes

7 Planning controls for special areas

Objectives/controls	*Comment*	*Compliance*

7.1 Special areas with heritage items		
		N/A
7.2 Special areas and Development Standards		
		N/A
7.3 Non-residential development in the enterprise corridor zone		
		N/A
7.4 Special area design guidelines		
		N/A
7.5 Design excellence		
	Discussed within the LEP	Yes

8 Works in the public domain

Any development requiring works to be carried out within the public domain in the Wollongong City Centre will be subject to compliance with the requirements of the Wollongong City Centre Public Domain Technical Manual at Appendix 2 to this DCP and any other specific Council requirements.	Council's landscape section has assessed the application and provided conditions in regards to the public domain.	Yes

Transport NSW | RailCorp

RailCorp Property
PO Box K349
Haymarket NSW 1238
Tel: (02) 8575 0780
Email: jim.tsirimiagos@transport.nsw.gov.au

28 October 2013

The General Manager
Wollongong City Council
Locked Bag 8821
Wollongong DC NSW 2500

ATTENTION: Rachel Harrison

Dear Sir/Madam,

STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007
DEVELOPMENT APPLICATION – DA-2013/666
14-18 Auburn Street, Wollongong

I refer to Council's letter received requesting RailCorp's concurrence for the above development application in accordance with clause 86(1) of the above SEPP.

RailCorp advises that the proposed development has been assessed in accordance with the requirements of Clause 86(4) being:

a) the potential effects of the development (whether alone or cumulatively with other development or proposed development) on:

(i) the safety or structural integrity of existing or proposed rail infrastructure facilities in the rail corridor, and
(ii) the safe and effective operation of existing or proposed rail infrastructure facilities in the rail corridor, and

b) what measures are proposed, or could reasonably be taken, to avoid or minimise those potential effects.

In this regard, RailCorp has taken the above matters into consideration and has decided to grant its concurrence to the development proposed in development application DA-2013/666 subject to Council imposing the following deferred commencement condition provided in Attachment A and operational conditions listed in Attachment B that will need to be complied with upon satisfaction of the Deferred Commencement Condition.

NSW | Transport RailCorp

Should Council choose not to impose the deferred commencement condition in Attachment A or the conditions provided in Attachment B (as written), then RailCorp's concurrence has not been granted to the proposed development.

Please contact Mr Jim Tsirimiagos on 8575 9780 should you wish to discuss this matter. Finally, RailCorp requests that a copy of the Notice of Determination and conditions of consent be forwarded to RailCorp.

Yours sincerely,

Kevin Sykes
General Manager Property

NSW | Transport RailCorp

Attachment A

Deferred Commencement Condition

This consent is not to operate until the Applicant satisfies the Council, within 12 months of the date of this consent, that it has obtained approval/certification from RailCorp as to the following matters and the approval/certification has been forwarded to the Council:

A1

The Applicant shall prepare and provide to RailCorp for approval/certification the following items:

1. *Final Geotechnical and Structural report/drawings that meet RailCorp's requirements. The Geotechnical Report must be based on actual borehole testing conducting on the site closest to the rail corridor.*
2. *Final Construction methodology with construction details pertaining to structural support during excavation.*
3. *Final cross sectional drawings showing ground surface, rail tracks, sub soil profile, proposed basement excavation and structural design of sub ground support adjacent to the Rail Corridor. All measurements are to be verified by a Registered Surveyor.*
4. *Detailed Survey Plan showing the relationship of the proposed developed with respect to RailCorp's land and infrastructure.*
5. *If required by RailCorp, an FE analysis which assesses the different stages of loading-unloading of the site and its effect on the rock mass surrounding the rail corridor.*

Any conditions issued as part of RailCorp's approval/certification of the above documents will also form part of the consent conditions that the Applicant is required to comply with.

NSW | Transport RailCorp

Attachment B

- *If required by RailCorp, prior to the commencement of works and prior to the issue of the Occupation Certificate, a joint inspection of the rail infrastructure and property in the vicinity of the project is to be carried out by representatives from RailCorp and the Applicant. These dilapidation surveys will establish the extent of any existing damage and enable any deterioration during construction to be observed. The submission of a detailed dilapidation report will be required unless otherwise notified by RailCorp.*

- *An acoustic assessment is to be submitted to Council prior to the issue of a construction certificate demonstrating how the proposed development will comply with the Department of Planning's document titled "Development Near Rail Corridors and Busy Roads- Interim Guidelines".*

- *Prior to the issue of a Construction Certificate the Applicant is to engage an Electrolysis Expert to prepare a report on the Electrolysis Risk to the development from stray currents. The Applicant must incorporate in the development all the measures recommended in the report to control that risk. A copy of the report is to be provided to the Principal Certifying Authority with the application for a Construction Certificate.*

- *The design, installation and use of lights, signs and reflective materials, whether permanent or temporary, which are (or from which reflected light might be) visible from the rail corridor must limit glare and reflectivity to the satisfaction of RailCorp.*

  The Principal Certifying Authority is not to issue the Construction Certificate until written confirmation has been received from RailCorp confirming that this condition has been satisfied.

- *If required by RailCorp, prior to the issue of a Construction Certificate a Risk Assessment/Management Plan and detailed Safe Work Method Statements (SWMS) for the proposed works are to be submitted to RailCorp for review and comment on the impacts on rail corridor. The Principal Certifying Authority is not to issue the Construction Certificate until written confirmation has been received from RailCorp confirming that this condition has been satisfied.*

- *Prior to the issuing of a Construction Certificate the Applicant is to submit to RailCorp a plan showing all craneage and other aerial operations for the development and must comply with all RailCorp requirements. The Principal Certifying Authority is not to issue the Construction Certificate until written confirmation has been received from the RailCorp confirming that this condition has been satisfied.*

- *If required by RailCorp, a track monitoring plan (including instrumentation and the monitoring regime during excavation and construction phases) is to be submitted to RailCorp for review and endorsement prior to the issuing of a Construction Certificate. The Principal Certifying Authority is not to issue a Construction Certificate until written confirmation has been received from RailCorp advising of the need to undertake the track monitoring plan, and if required, that it has been endorsed.*

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