

Nationwide House Energy Rating Scheme

NatHERS Certificate No. #HR-WI9J1A-01

Generated on 25 Oct 2022 using Hero 3.0.1

Property

Address Unit 01, 31 Reddall Street, MANLY, NSW, 2095

Lot/DP

NCC Class* 1a

Type New

Plans

Main Plan Project No. 22020

Prepared by Wolski Coppin Architecture

Construction and environment

Assessed floor area (m ²)*	Exposure Type
Conditioned*	287.0
Unconditioned*	55.0
Total	399.3
Garage	57.3
	NatHERS climate zone
	56 - Mascot AMO



Accredited assessor

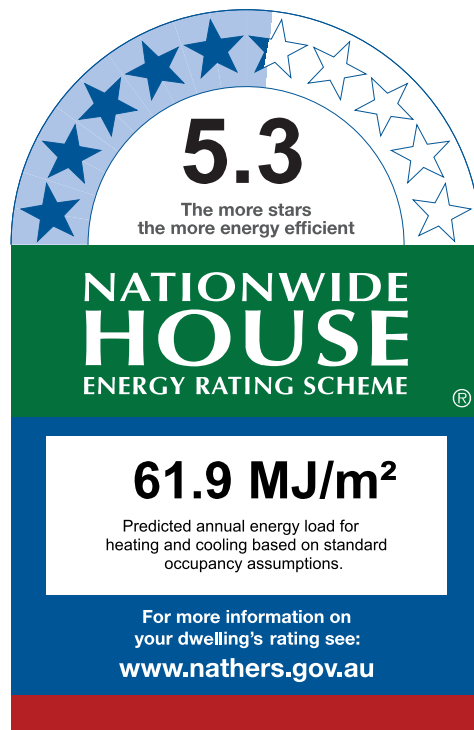
Name	Duncan Hope
Business name	Senica Consultancy Group
Email	duncan@senica.com.au
Phone	+61 280067784
Accreditation No.	DMN/14/1658
Assessor Accrediting Organisation	DMN
Declaration of interest	No Conflict of Interest

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.



Thermal Performance

Heating	Cooling
40.5	21.4
MJ/m ²	MJ/m ²

About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

Verification

To verify this certificate, scan the QR code or visit <http://www.hero-software.com.au/pdf/HR-WI9J1A-01>. When using either link, ensure you are visiting <http://www.hero-software.com.au>



Certificate Check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

Ceiling penetrations*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate?

Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

Exposure*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Window and glazed door type and performance

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
ALM-003-03 A	Aluminium A DG Air Fill High Solar Gain low-E -Clear	4.30	0.47	0.45	0.49
ALM-006-03 A	Aluminium B DG Argon Fill High Solar Gain low-E -Clear	4.10	0.52	0.49	0.55

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
Bathroom	ALM-003-03 A	WG03	1500	600	Awning	90	SE	None
Bedroom 01	ALM-006-03 A	WL12	2400	2950	Sliding	60	NE	None

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
Bedroom 01	ALM-006-03 A	WL01	2400	210	Fixed	0	SW	None
Bedroom 01	ALM-006-03 A	WR06	375	3275	Fixed	0	NW	None
Bedroom 01	ALM-006-03 A	WR01	550	4678	Fixed	0	SW	None
Bedroom 02	ALM-003-03 A	WG08	2400	800	Awning	90	SE	None
Bedroom 02	ALM-006-03 A	WG09	2400	4004	Sliding	25	NE	None
Bedroom 02	ALM-006-03 A	WG10	2400	1670	Fixed	0	NW	None
Bedroom 03	ALM-003-03 A	WG01	2400	580	Awning	45	SW	None
Bedroom 03	ALM-006-03 A	WG13	2400	1670	Sliding	45	NE	None
Bedroom 03	ALM-006-03 A	WG02	2400	3240	Sliding	45	SW	None
Ensuite	ALM-006-03 A	WR01	550	3625	Fixed	0	SW	None
Ensuite 02	ALM-006-03 A	WG09	2400	2000	Sliding	25	NE	None
Foyer	ALM-003-03 A	WG05	2400	1890	Casement	54	SW	None
Guest WC	ALM-003-03 A	WL03	2400	900	Awning	90	SE	None
Guest WC	ALM-006-03 A	WR02	375	1645	Fixed	0	SE	None
Guest WC	ALM-006-03 A	WR01	550	2442	Fixed	0	SW	None
Indoor/Outdoor Room	ALM-006-03 A	WG11	2400	5538	Sliding	70	NE	None
Indoor/Outdoor Room	ALM-006-03 A	WG12	2400	6070	Sliding	70	NW	None
Kitchen/Living/Dining	ALM-006-03 A	WL11	2400	2500	Sliding	45	NW	None
Kitchen/Living/Dining	ALM-006-03 A	WL10	2400	2619	Sliding	45	SW	None
Kitchen/Living/Dining	ALM-003-03 A	WL09	2400	3635	Awning	21	NW	None
Kitchen/Living/Dining	ALM-006-03 A	WR05	375	3635	Fixed	0	NW	None
Kitchen/Living/Dining	ALM-006-03 A	WL08	2400	6569	Sliding	70	NE	None
Kitchen/Living/Dining	ALM-006-03 A	WL07	2400	2105	Sliding	28	NW	None
Kitchen/Living/Dining	ALM-006-03 A	WL06	2400	6600	Sliding	41	NE	None
Kitchen/Living/Dining	ALM-006-03 A	WR04	375	5050	Fixed	0	SE	None
Kitchen/Living/Dining	ALM-006-03 A	WL05	2400	574	Fixed	0	SW	None
Kitchen/Living/Dining	ALM-006-03 A	WL04	2400	3430	Fixed	0	SE	None

* Refer to glossary.

Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
Kitchen/Living/Dining	ALM-006-03 A	WR03	550	13118	Fixed	0	SW	None
Laundry	ALM-003-03 A	WG06	2400	900	Casement	90	SE	None
Staircase Base	ALM-006-03 A	WG07	2400	3256	Fixed	0	SE	None
Study Bedroom 04	ALM-006-03 A	WG04	2400	1680	Sliding	45	SW	None
Foyer	ALM-006-03 A	WL02	2400	1856	Fixed	0	SW	None
Foyer	ALM-006-03 A	WR01	550	1764	Fixed	0	SW	None

Roof window type and performance value

Default* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

Custom* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
None								

Skylight type and performance

Skylight ID	Skylight description
None	

Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m ²)	Orient-ation	Outdoor shade	Diffuser	Shaft Reflectance
None								

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
None				



External wall type

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
BV-REFL-CAV	Brick Veneer Stud Wall with Reflective Sarking	0.30	Light	2.50	Yes
CONCBLOCK-190-FCF-PB	Concrete Block 190mm Fully Core-Filled - Plasterboard Internally	0.30	Light	0.00	No
FC-REFL-CAV	Fibre-Cement Clad Battened (Refl Cavity) Stud Wall	0.30	Light	2.50	Yes

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
AC Mechanical	CONCBLOCK-190-FCF-PB	3760	5092	SE		No
AC Mechanical	CONCBLOCK-190-FCF-PB	3760	572	SW		No
Bathroom	BV-REFL-CAV	2800	1450	SW		Yes
Bathroom	FC-REFL-CAV	2800	783	SE	1654	Yes
Bedroom 01	FC-REFL-CAV	2790	3065	NE	3266	Yes
Bedroom 01	FC-REFL-CAV	2822	161	NW		Yes
Bedroom 01	FC-REFL-CAV	1870	4727	SW	730	Yes
Bedroom 01	BV-REFL-CAV	1870	776	NW	805	Yes
Bedroom 01	FC-REFL-CAV	3192	471	SW	1534	Yes
Bedroom 01	FC-REFL-CAV	2991	3275	NW	458	Yes
Bedroom 01	FC-REFL-CAV	766	4684	SW	1405	Yes
Bedroom 02	BV-REFL-CAV	2800	1619	SE		Yes
Bedroom 02	BV-REFL-CAV	2800	461	SW		Yes
Bedroom 02	FC-REFL-CAV	2800	4004	NE	1172	Yes
Bedroom 02	FC-REFL-CAV	2800	1671	NW	6317	Yes
Bedroom 03	BV-REFL-CAV	2800	786	SW		Yes
Bedroom 03	BV-REFL-CAV	2800	3352	NW	737	Yes
Bedroom 03	FC-REFL-CAV	2800	1780	NE	10203	Yes
Bedroom 03	FC-REFL-CAV	2800	661	NW		Yes
Bedroom 03	FC-REFL-CAV	2800	3246	SW		Yes

* Refer to glossary.



External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
Bedroom 03	BV-REFL-CAV	2800	764	NW		Yes
Downstairs	CONCBLOCK-190-FCF-PB	3760	3309	SE		No
Electrical Comms Room	CONCBLOCK-190-FCF-PB	3760	2849	SW		No
Ensuite	FC-REFL-CAV	1870	3687	SW	737	Yes
Ensuite	FC-REFL-CAV	1870	697	SE	5084	Yes
Ensuite	FC-REFL-CAV	766	3626	SW	1419	Yes
Ensuite 02	FC-REFL-CAV	2800	2000	NE	1172	Yes
Ensuite 02	BV-REFL-CAV	2800	3951	SE		Yes
Foyer	FC-REFL-CAV	2800	1895	SW		Yes
Foyer	BV-REFL-CAV	2800	322	SE		Yes
Garage	CONCBLOCK-190-FCF-PB	3760	6514	NW		No
Guest WC	FC-REFL-CAV	2822	1645	SE	448	Yes
Guest WC	FC-REFL-CAV	2420	2095	SW	1605	Yes
Guest WC	FC-REFL-CAV	2822	406	SW		No
Guest WC	FC-REFL-CAV	766	2445	SW	1771	Yes
Indoor/Outdoor Room	FC-REFL-CAV	2800	5538	NE	2843	Yes
Indoor/Outdoor Room	FC-REFL-CAV	2800	6602	NW	2641	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2580	3285	NW	3891	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2580	2619	SW	3255	Yes
Kitchen/Living/Dining	FC-REFL-CAV	3110	3635	NW	494	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2898	6570	NE	3069	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2750	2105	NW	7064	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2598	6600	NE	964	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2960	5746	SE	513	Yes
Kitchen/Living/Dining	FC-REFL-CAV	3320	574	SW	3870	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2580	3430	SE	1050	Yes

* Refer to glossary.



External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orient-ation	Horizontal shading feature* projection (mm)	Vertical shading feature
Kitchen/Living/Dining	FC-REFL-CAV	740	13118	SW		Yes
LMR	CONCBLOCK-190-FCF-PB	3760	1580	SE		No
LMR	CONCBLOCK-190-FCF-PB	3760	1726	SW		No
Laundry	FC-REFL-CAV	2800	1645	SE		Yes
Laundry	FC-REFL-CAV	2800	2090	SW		Yes
Laundry	FC-REFL-CAV	2800	409	SW		No
Lift	FC-REFL-CAV	2822	1395	SE	449	Yes
Lift	FC-REFL-CAV	2822	600	NE	809	Yes
Lift	FC-REFL-CAV	2800	1436	SE		Yes
Lift	FC-REFL-CAV	2800	563	NE		Yes
Lift	CONCBLOCK-190-FCF-PB	3760	1422	SE		No
Lift	CONCBLOCK-190-FCF-PB	3760	566	NE		No
Pool Equipment	CONCBLOCK-190-FCF-PB	3760	803	NW		No
Pool Equipment	CONCBLOCK-190-FCF-PB	3760	763	SW		No
Pool Equipment	CONCBLOCK-190-FCF-PB	3760	3172	NW		No
Pool Equipment	CONCBLOCK-190-FCF-PB	3760	817	NE		No
Pool Equipment	CONCBLOCK-190-FCF-PB	3760	1428	SW		No
Staircase Base	FC-REFL-CAV	2800	3256	SE		Yes
Study Bedroom 04	FC-REFL-CAV	2800	820	NW	1804	Yes
Study Bedroom 04	FC-REFL-CAV	2800	1809	SW	899	Yes
Study Bedroom 04	BV-REFL-CAV	2800	1405	SW		Yes
Study Bedroom 04	BV-REFL-CAV	2800	505	SE		Yes
Foyer	FC-REFL-CAV	2420	1856	SW	1434	Yes
Foyer	BV-REFL-CAV	2420	185	SE	2974	Yes
Foyer	FC-REFL-CAV	766	1769	SW	1593	Yes
Water Tanks Storage	CONCBLOCK-190-FCF-PB	3760	584	SE		No

* Refer to glossary.

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
Water Tanks Storage	CONCBLOCK-190-FCF-PB	3760	6582	SW		No

Internal wall *type*

Wall ID	Wall Type	Area (m ²)	Bulk insulation
CONBLOCK-190-PB1	Concrete Block 190mm Concrete - Plasterboard Internally	47.8	0.00
CONCBLOCK-190-FCF-PB	Concrete Block 190mm Fully Core-Filled - Plasterboard Internally	56.4	0.00
INT-PB	Internal Plasterboard Stud Wall	190.0	2.50
INT-PB	Internal Plasterboard Stud Wall	50.6	0.00

Floor *type*

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
AC Mechanical	CSOG-200: Concrete Slab on Ground (200mm)	16.3	N/A	0.00	Exposed
Antechamber	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	1.7	N/A	0.00	Tile
Bathroom	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	4.3	N/A	0.00	Tile
Bedroom 01	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	26.2	N/A	0.00	Tile
Bedroom 02	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	25.3	N/A	0.00	Tile
Bedroom 03	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	18.2	N/A	0.00	Tile
Downstairs	CSOG-200: Concrete Slab on Ground (200mm)	19.9	N/A	0.00	Tile
Electrical Comms Room	CSOG-200: Concrete Slab on Ground (200mm)	5.4	N/A	0.00	Tile
Ensuite	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	9.1	N/A	0.00	Tile
Ensuite 02	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	7.9	N/A	0.00	Tile
Foyer	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	7.8	N/A	0.00	Tile
Foyer	CSOG-200: Concrete Slab on Ground (200mm)	0.2	N/A	0.00	Tile
Garage	CSOG-200: Concrete Slab on Ground (200mm)	57.3	N/A	0.00	Exposed
Guest WC	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	4.1	N/A	0.00	Tile
Hallway	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	4.7	N/A	0.00	Tile

* Refer to glossary.

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Indoor/Outdoor Room	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	36.6	N/A	0.00	Tile
Kitchen/Living/Dining	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	93.9	N/A	0.00	Tile
LMR	CSOG-200: Concrete Slab on Ground (200mm)	2.7	N/A	0.00	Tile
Laundry	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	4.1	N/A	0.00	Tile
Lift	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	4.5	N/A	0.00	Tile
Lift	CSOG-200: Concrete Slab on Ground (200mm)	2.5	N/A	0.00	Tile
Pool Equipment	CSOG-200: Concrete Slab on Ground (200mm)	7.1	N/A	0.00	Exposed
Small Hallway	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	2.0	N/A	0.00	Tile
Staircase Base	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	17.8	N/A	0.00	Tile
Study Bedroom 04	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	14.3	N/A	0.00	Tile
Water Tanks Storage	CSOG-200: Concrete Slab on Ground (200mm)	19.1	N/A	0.00	Exposed

Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
Bedroom 01	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	3.50	Yes
Bedroom 01	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	3.50	Yes
Bedroom 03	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Ensuite	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	3.50	Yes
Ensuite	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	3.50	Yes
Garage	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Guest WC	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	3.50	Yes
Hallway	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	3.50	Yes
Indoor/Outdoor Room	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Kitchen/Living/Dining	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	3.50	Yes
Kitchen/Living/Dining	SLAB-250-CEIL-01: Concrete Slab (250mm) with Suspended PB Ceiling	0.00	No

* Refer to glossary.

Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
Lift	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	3.50	Yes
Small Hallway	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	3.50	Yes
Foyer	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	3.50	Yes
Water Tanks Storage	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
AC Mechanical	1	Downlight	100	Sealed
Bedroom 01	4	Downlight	100	Sealed
Bedroom 02	4	Downlight	100	Sealed
Downstairs	3	Downlight	100	Sealed
Electrical Comms Room	1	Downlight	100	Sealed
Ensuite	1	Downlight	100	Sealed
Ensuite 02	1	Downlight	100	Sealed
Foyer	1	Downlight	100	Sealed
Guest WC	1	Downlight	100	Sealed
Hallway	1	Downlight	100	Sealed
Indoor/Outdoor Room	4	Downlight	100	Sealed
Kitchen/Living/Dining	13	Downlight	100	Sealed
Kitchen/Living/Dining	1	Exhaust Fan	350	Sealed
Laundry	1	Downlight	100	Sealed
Pool Equipment	1	Downlight	100	Sealed
Staircase Base	3	Downlight	100	Sealed
Water Tanks Storage	1	Downlight	100	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
None		

* Refer to glossary.



Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	1.30	0.50	Medium
FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	1.30	0.50	Medium
SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	2.68	0.50	Medium
SLAB-250-CEIL-01: Concrete Slab (250mm) with Suspended PB Ceiling	2.68	0.50	Medium

Explanatory Notes

About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licensed assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category - exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category - open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category - suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category - protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au .
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

5.3

NATIONWIDE

HOUSE

61.9

www.hero-software.com.au/pdf/HR-WB1A-01

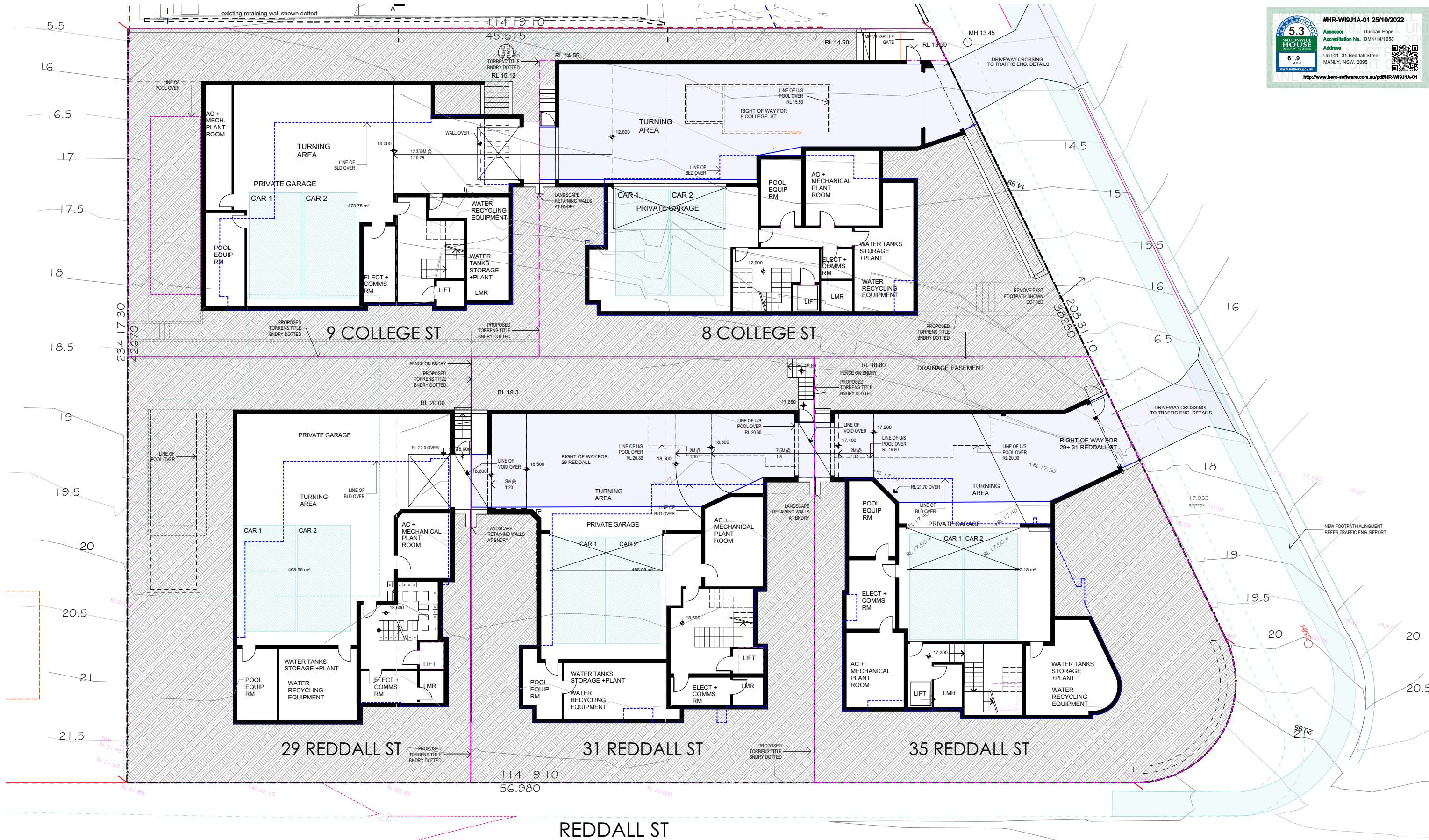
#HR-WB1A-01 25/10/2022

Assessor: Duncan Hope

Accreditation No. DMN/14/1658

Address: Unit 01, 31 Reddall Street, MANLY, NSW, 2095

http://www.hero-software.com.au/pdf/HR-WB1A-01



BASEMENT

DA ISSUE 25/01/2023

NOTES:

FIGURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

THE CONTRACTOR IS TO CHECK AND VERIFY FIGURED DIMENSIONS PRIOR TO ANY COMMENCEMENT OF WORK ON SITE.

THIS DRAWING IS COPYRIGHT AND SHALL REMAIN THE PROPERTY OF WOLSKI COPPIN ARCHITECTURE

REVISIONS:

DATE	REV	DESCRIPTION

ARCHITECT:

WOLSKI . COPPIN

ARCHITECTURE

SUITE 3, LEVEL 1, 507 MILITARY ROAD MOSMAN NSW 2088

T: 9953 8477 E: info@wolskicoppin.com.au

DAVID WOLSKI NSW ARB No. 5297

PROJECT TITLE:

FIVE RESIDENCES

for Reddall Street Pty Ltd

29, 31 & 35 Reddall St + Proposed lots

8 & 9 College St Manly

DRAWING TITLE:

BASEMENT

DRAWING No:

DA01

PROJECT No:

22020

REVISION:

NORTH POINT:

SCALE:

1:200 @ A3

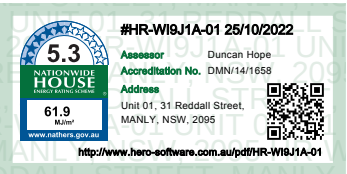
DATE:

25/01/2023

PLOT DATE:

25/01/2023

BIM Server: BIMSrv01 - BIM Server 20/29-35 Reddall Street, Manly 5 Residences - Study 1 - 121121



NOTES:
FIGURED DIMENSIONS ARE TO
BE TAKEN IN PREFERENCE TO
SCALED DIMENSIONS.
THE CONTRACTOR IS TO
CHECK AND VERIFY FIGURED
DIMENSIONS PRIOR TO ANY
COMMENCEMENT OF WORK ON
SITE.
THIS DRAWING IS COPYRIGHT
AND SHALL REMAIN THE
PROPERTY OF WOLSKI COPPIN
ARCHITECTURE

REVISIONS:		
DATE	REV	DESCRIPTION

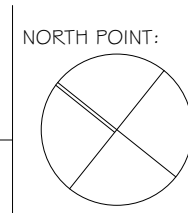
ARCHITECT:
WOLSKI . COPPIN
ARCHITECTURE
SUITE 3, LEVEL 1, 507 MILITARY ROAD MOSMAN NSW 2088
T: 9953 8477 E: info@wolskicoppin.com.au
DAVID WOLSKI NSW ARB No. 5297

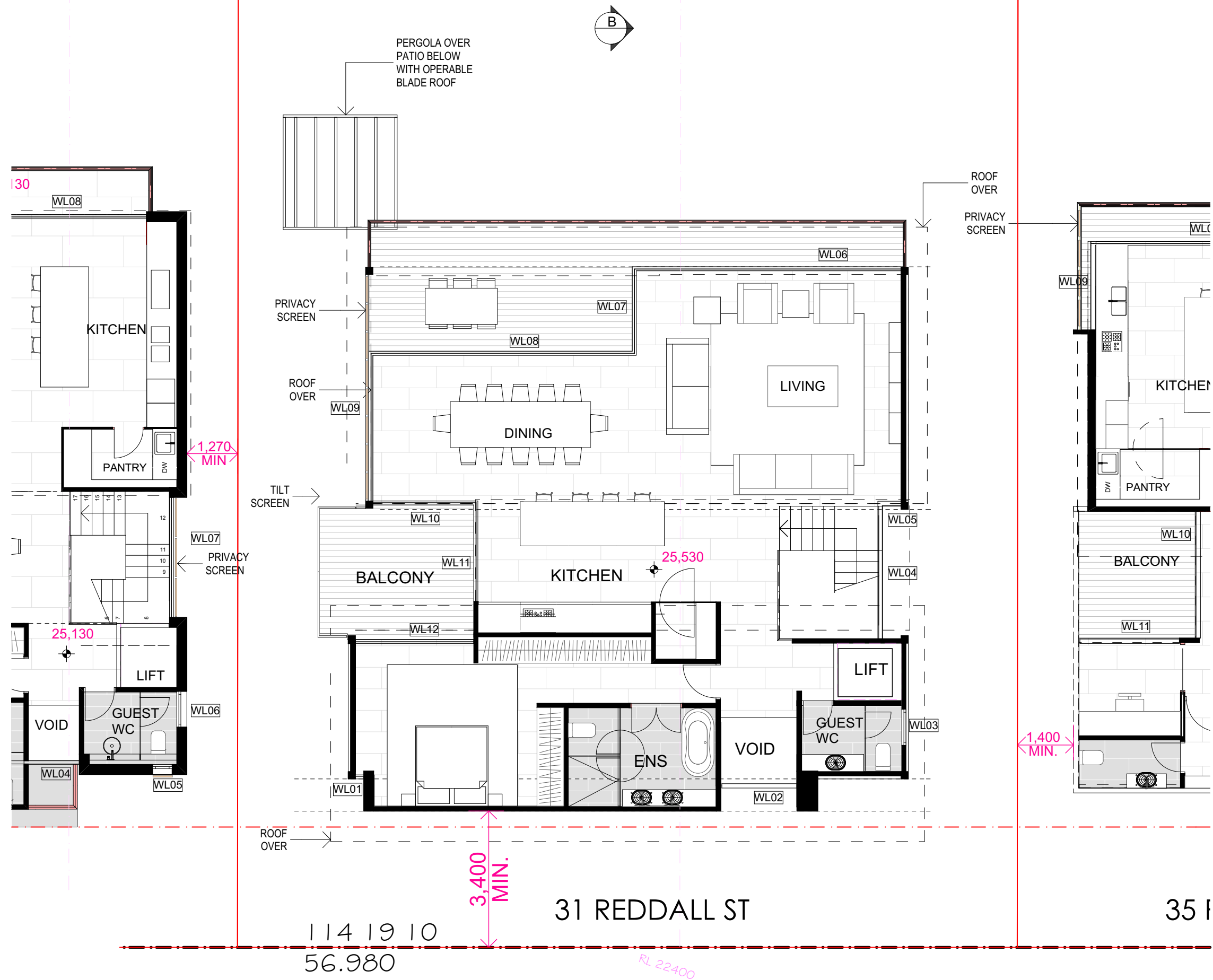
PROJECT TITLE:
FIVE RESIDENCES
for Reddall Street Pty Ltd
29, 31 & 35 Reddall St + 8 & 9 College St
Manly

DRAWING TITLE:
31 REDDALL ST.
DA ISSUE 25/01/2023
GROUND

DRAWING No:
DA 31.01

PROJECT No:
22020
SCALE:
1:100 @ A3
REVISION:
DATE:
25/01/2023





NOTES:

FIGURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

THE CONTRACTOR IS TO CHECK AND VERIFY FIGURED DIMENSIONS PRIOR TO ANY COMMENCEMENT OF WORK ON SITE.

THIS DRAWING IS COPYRIGHT AND SHALL REMAIN THE PROPERTY OF WOLSKI COPPIN ARCHITECTURE

REVISIONS:

DATE	REV	DESCRIPTION

ARCHITECT:

WOLSKI . COPPIN
ARCHITECTURE

SUITE 3, LEVEL 1, 507 MILITARY ROAD MOSMAN NSW 2088
T: 9953 8477 E: info@wolskicoppin.com.au
DAVID WOLSKI NSW ARB No. 5297

PROJECT TITLE:

FIVE RESIDENCES
for Reddall Street Pty Ltd
29, 31 & 35 Reddall St + 8 & 9 College St
Manly

DRAWING TITLE:

31 REDDALL ST.
DA ISSUE 25/01/2023
FIRST FLOOR

DRAWING No:

DA 31.02

PROJECT No:

22020

SCALE:

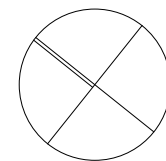
1:100 @ A3

REVISION:

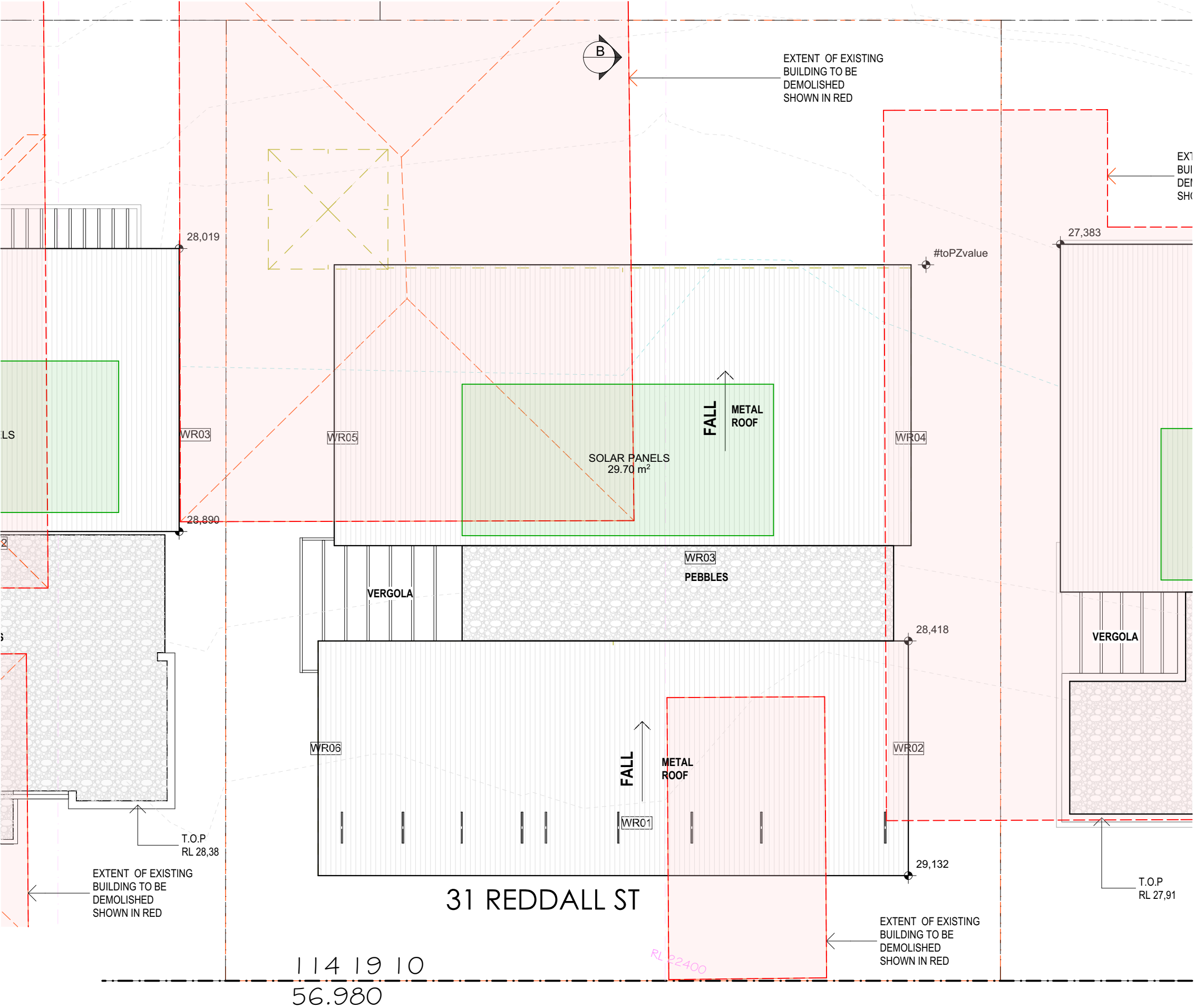
DATE:

25/01/2023

NORTH POINT:



PLOT DATE: 25/01/2023



NOTES:
FIGURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.
THE CONTRACTOR IS TO CHECK AND VERIFY FIGURED DIMENSIONS PRIOR TO ANY COMMENCEMENT OF WORK ON SITE.
THIS DRAWING IS COPYRIGHT AND SHALL REMAIN THE PROPERTY OF WOLSKI COPPIN ARCHITECTURE.

REVISIONS:		
DATE	REV	DESCRIPTION

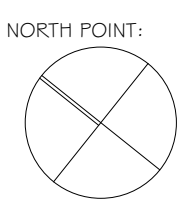
ARCHITECT:
WOLSKI . COPPIN
ARCHITECTURE
SUITE 3, LEVEL 1, 507 MILITARY ROAD MOSMAN NSW 2088
T: 9953 8477 E: info@wolskicoppin.com.au
DAVID WOLSKI NSW ARB No. 5297

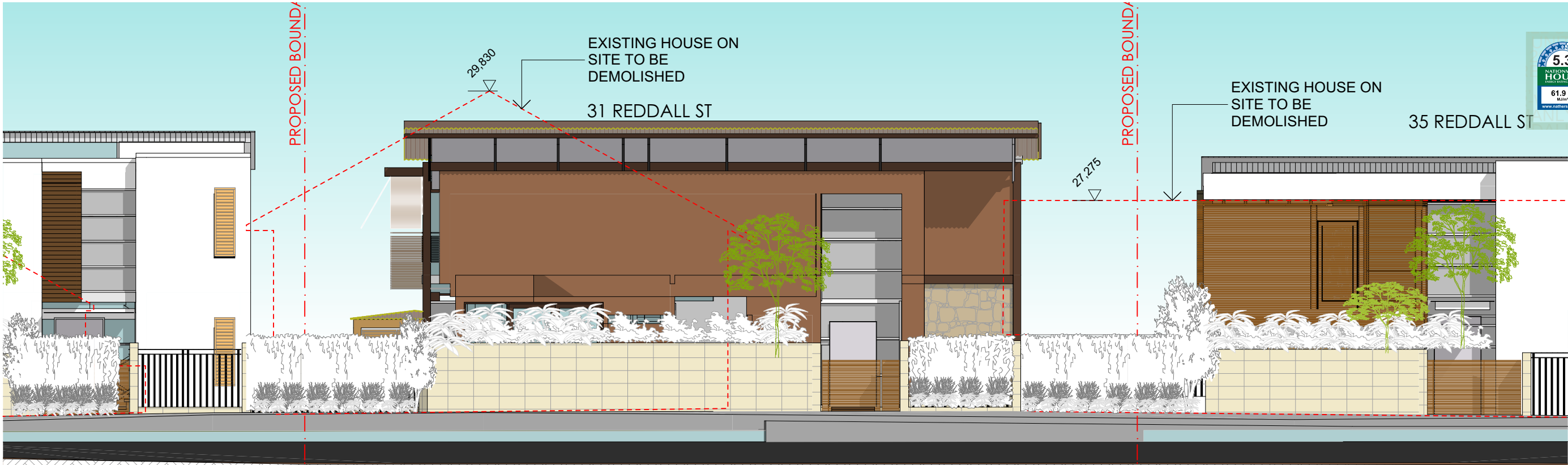
PROJECT TITLE:
FIVE RESIDENCES
for Reddall Street Pty Ltd
29, 31 & 35 Reddall St + 8 & 9 College St
Manly

DRAWING TITLE:
31 REDDALL ST.
DA ISSUE 25/01/2023
ROOF

DRAWING No:
DA 31.03

PROJECT No:
22020
SCALE:
1:100 @ A3
REVISION:
DATE:
25/01/2023





SOUTH-WEST ELEVATION (REDDALL ST) 1:100



SOUTH EAST -ELEVATION 1:100



NOTES:

FIGURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

THE CONTRACTOR IS TO CHECK AND VERIFY FIGURED DIMENSIONS PRIOR TO ANY COMMENCEMENT OF WORK ON SITE.

THIS DRAWING IS COPYRIGHT AND SHALL REMAIN THE PROPERTY OF WOLSKI COPPIN ARCHITECTURE.

REVISIONS:

DATE	REV	DESCRIPTION

ARCHITECT:

WOLSKI . COPPIN
ARCHITECTURE

SUITE 3, LEVEL 1, 507 MILITARY ROAD MOSMAN NSW 2088
T: 9953 8477 E: info@wolskicoppin.com.au
DAVID WOLSKI NSW ARB No. 5297

PROJECT TITLE:

FIVE RESIDENCES
for Reddall Street Pty Ltd
29, 31 & 35 Reddall St + 8 & 9 College St
Manly

DRAWING TITLE:

31 REDDALL ST.
DA ISSUE 25/01/2023
SOUTH WEST & SOUTH EAST ELEVATION

DRAWING No:

DA 31.04

PROJECT No:

22020

REVISION:

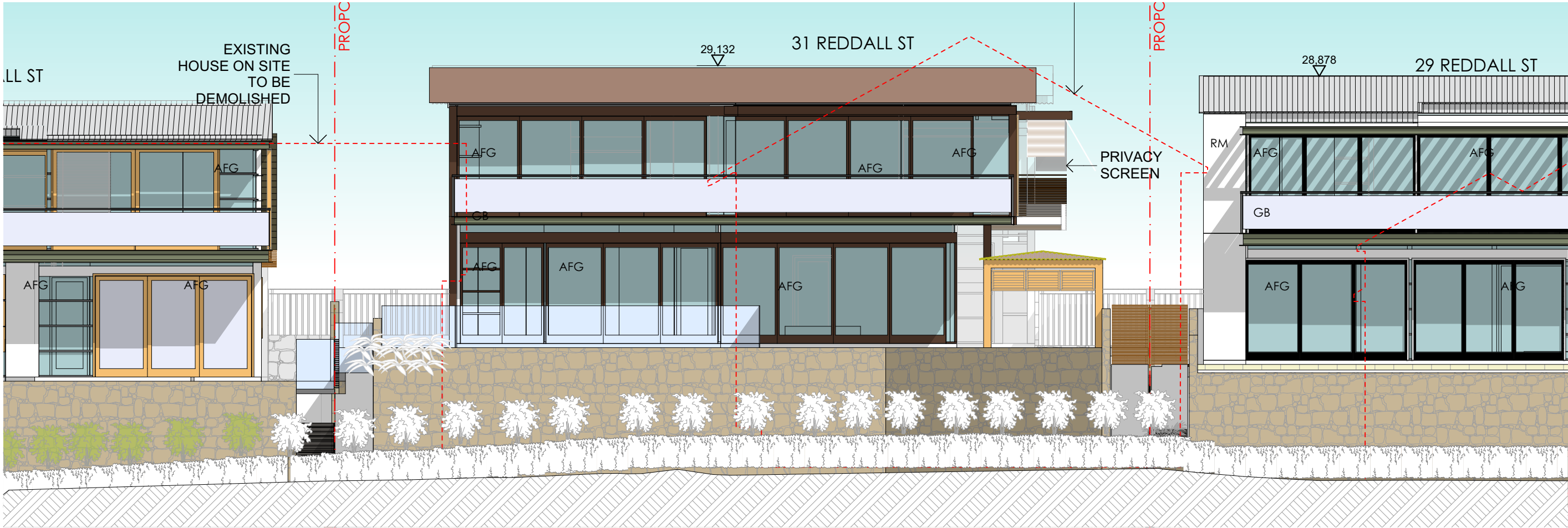
SCALE: 1:100 @ A3

DATE: 25/01/2023

NORTH POINT:

PLOT DATE: 25/01/2023

BIM Server: BIMSRV01 - BIM Server 20/29-35 Reddall Street, Manly 5 Residences - Study 1 - 121121



NORTH- EAST INTERNAL ELEVATION

1:100



NORTH- WEST INTERNAL ELEVATION

1:100

NOTES:

FIGURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

THE CONTRACTOR IS TO CHECK AND VERIFY FIGURED DIMENSIONS PRIOR TO ANY COMMENCEMENT OF WORK ON SITE.

THIS DRAWING IS COPYRIGHT AND SHALL REMAIN THE PROPERTY OF WOLSKI COPPIN ARCHITECTURE.

REVISIONS:		
DATE	REV	DESCRIPTION

ARCHITECT:

WOLSKI . COPPIN
ARCHITECTURE

SUITE 3, LEVEL 1, 507 MILITARY ROAD MOSMAN NSW 2088
T: 9953 8477 E: info@wolskicoppin.com.au
DAVID WOLSKI NSW ARB No. 5297

PROJECT TITLE:

FIVE RESIDENCES
for Reddall Street Pty Ltd
29, 31 & 35 Reddall St + 8 & 9 College St
Manly

DRAWING TITLE:

31 REDDALL ST.
DA ISSUE 25/01/2023
NORTH EAST & NORTH
WEST ELEVATION

DRAWING No:

22020

DA 31.05

PROJECT No:

22020

SCALE:

1:100 @ A3

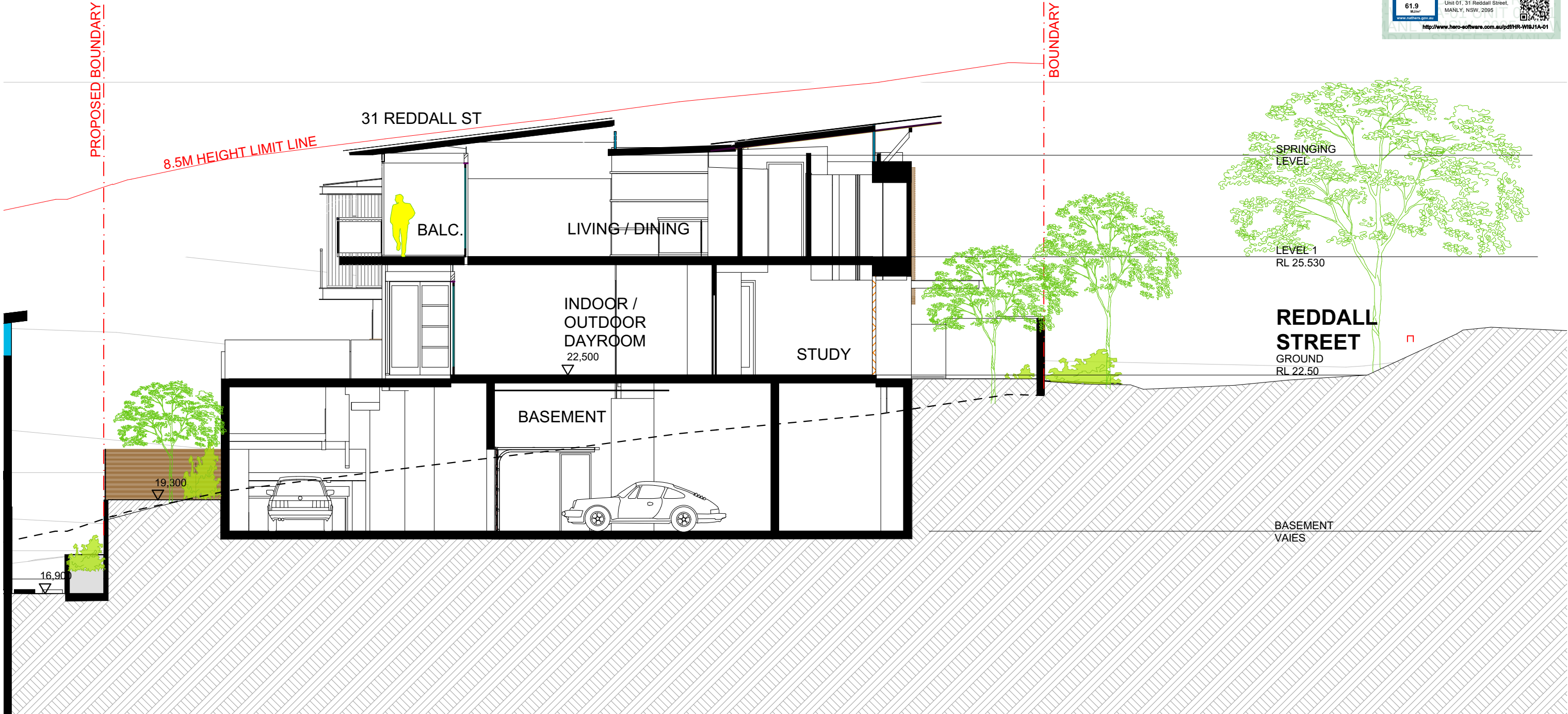
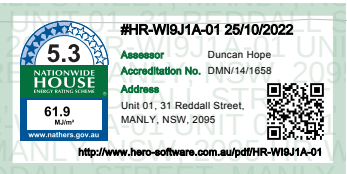
REVISION:

DATE:

25/01/2023

NORTH POINT:

PLOT DATE: 25/01/2023



LONG SECTION A

NOTES: FIGURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS. THE CONTRACTOR IS TO CHECK AND VERIFY FIGURED DIMENSIONS PRIOR TO ANY COMMENCEMENT OF WORK ON SITE. THIS DRAWING IS COPYRIGHT AND SHALL REMAIN THE PROPERTY OF WOLSKI COPPIN ARCHITECTURE.	REVISIONS:		
	DATE	REV	DESCRIPTION
ARCHITECT:			
WOLSKI . COPPIN ARCHITECTURE			
SUITE 3, LEVEL 1, 507 MILITARY ROAD MOSMAN NSW 2088 T: 9953 8477 E: info@wolskicoppin.com.au DAVID WOLSKI NSW ARB No. 5297			

PROJECT TITLE:	
FIVE RESIDENCES for Reddall Street Pty Ltd	
29, 31 & 35 Reddall St + 8 & 9 College St Manly	

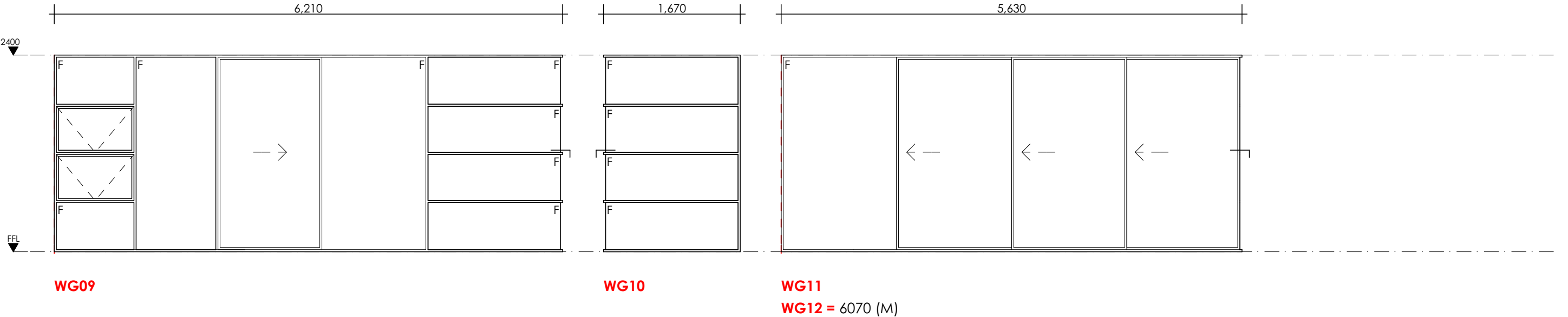
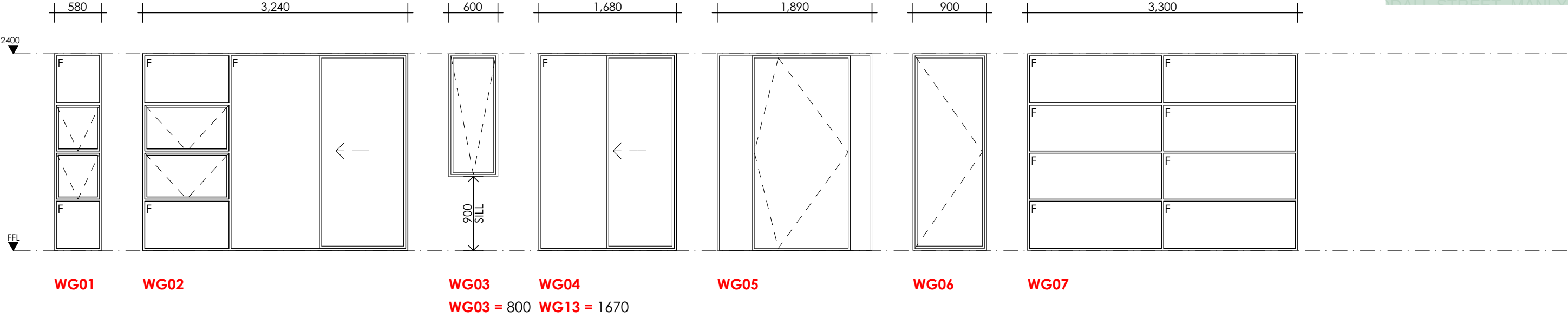
DRAWING TITLE:	
31 REDDALL ST. DA ISSUE 25/01/2023 SECTION	

DRAWING No:	
22020	
DA 31.06	

PROJECT No:	
22020	
REVISION:	
SCALE:	
1:100 @ A3	
DATE:	
25/01/2023	

NORTH POINT:	

GROUND FLOOR



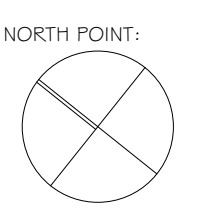
NOTES: FIGURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS. THE CONTRACTOR IS TO CHECK AND VERIFY FIGURED DIMENSIONS PRIOR TO ANY COMMENCEMENT OF WORK ON SITE. THIS DRAWING IS COPYRIGHT AND SHALL REMAIN THE PROPERTY OF WOLSKI COPPIN ARCHITECTURE.	REVISIONS:		
	DATE	REV	DESCRIPTION
ARCHITECT:			
WOLSKI . COPPIN ARCHITECTURE			
SUITE 3, LEVEL 1, 507 MILITARY ROAD MOSMAN NSW 2088 T: 9953 8477 E: info@wolskicoppin.com.au DAVID WOLSKI NSW ARB No. 5297			

PROJECT TITLE:
FIVE RESIDENCES
for Reddall Street Pty Ltd
29, 31 & 35 Reddall St + 8 & 9 College St
Manly

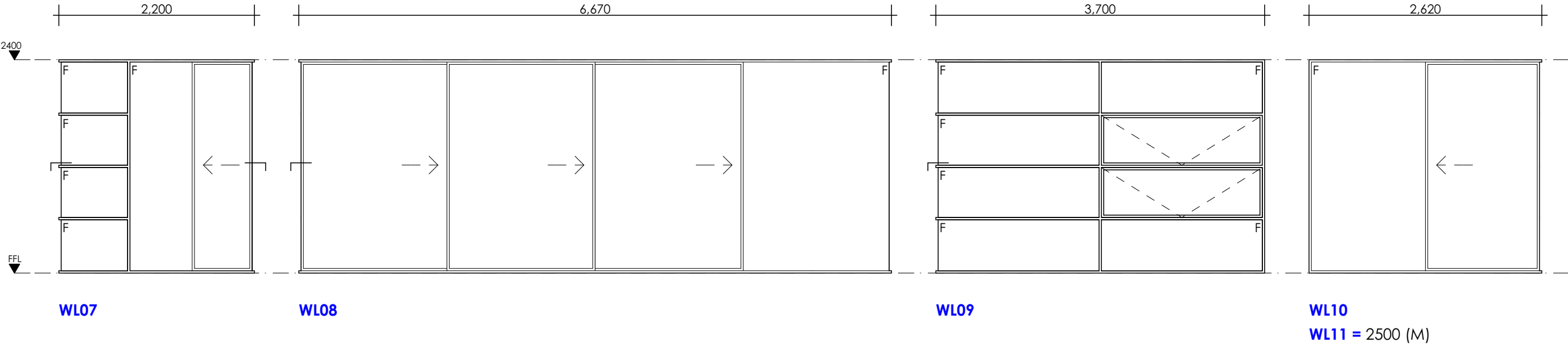
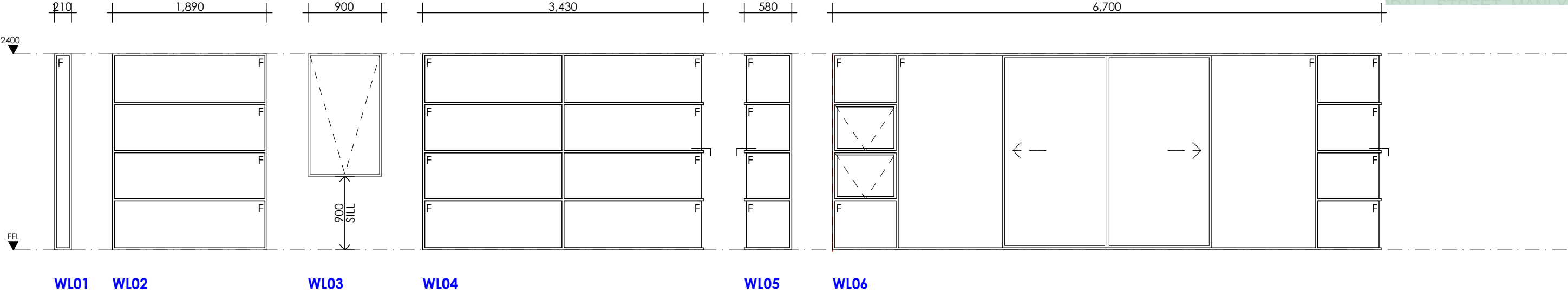
DRAWING TITLE:
29 REDDALL ST.
DA ISSUE 25/01/2023
WINDOW SCHEDULE 01

DRAWING No:
31.10

PROJECT No:	REVISION:
22020	
SCALE:	DATE:
1:50 @ A3	25/01/2023



FIRST FLOOR

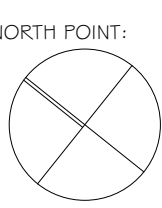


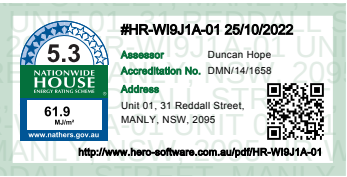
NOTES: FIGURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS. THE CONTRACTOR IS TO CHECK AND VERIFY FIGURED DIMENSIONS PRIOR TO ANY COMMENCEMENT OF WORK ON SITE. THIS DRAWING IS COPYRIGHT AND SHALL REMAIN THE PROPERTY OF WOLSKI COPPIN ARCHITECTURE.	REVISIONS:			ARCHITECT: WOLSKI . COPPIN ARCHITECTURE SUITE 3, LEVEL 1, 507 MILITARY ROAD MOSMAN NSW 2088 T: 9953 8477 E: info@wolskicoppin.com.au DAVID WOLSKI NSW ARB No. 5297
	DATE	REV	DESCRIPTION	

PROJECT TITLE:
FIVE RESIDENCES
for Reddall Street Pty Ltd
29, 31 & 35 Reddall St + 8 & 9 College St
Manly

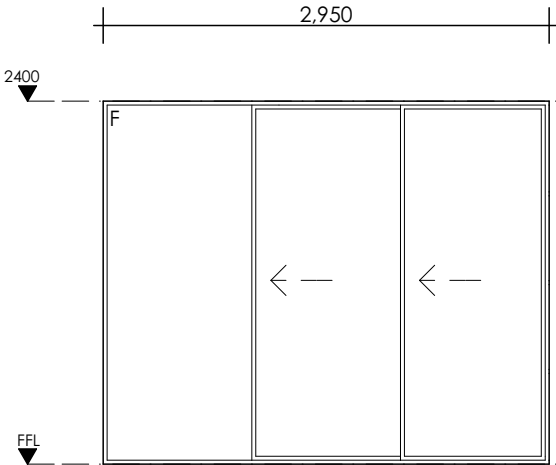
DRAWING TITLE:
29 REDDALL ST.
DA ISSUE 25/01/2023
WINDOW SCHEDULE 02
DRAWING No:
31.11

PROJECT No:	REVISION:
22020	
SCALE:	DATE:
1:50 @ A3	25/01/2023



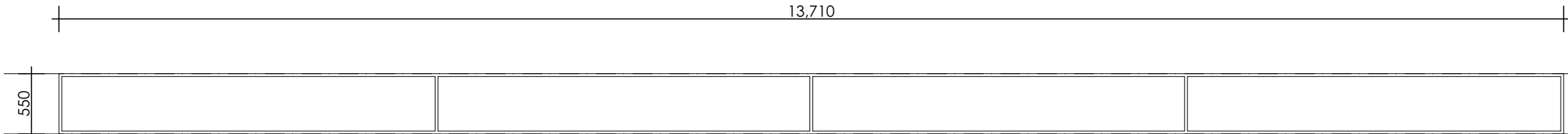


FIRST FLOOR

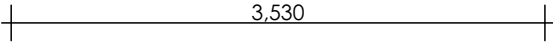


WL12

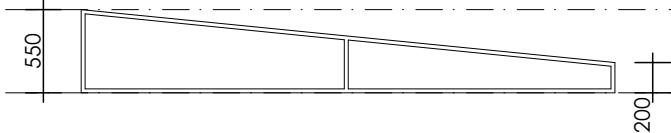
ROOF



WR01
WR03 = 13,240



WR02
WR04 = 5050
WR05 = 5050 (M)
WR06 = 3530 (M)



NOTES:

FIGURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

THE CONTRACTOR IS TO CHECK AND VERIFY FIGURED DIMENSIONS PRIOR TO ANY COMMENCEMENT OF WORK ON SITE.

THIS DRAWING IS COPYRIGHT AND SHALL REMAIN THE PROPERTY OF WOLSKI COPPIN ARCHITECTURE

REVISIONS:

DATE	REV	DESCRIPTION

ARCHITECT:

WOLSKI . COPPIN
ARCHITECTURE

SUITE 3, LEVEL 1, 507 MILITARY ROAD MOSMAN NSW 2088
T: 9953 8477 E: info@wolskicoppin.com.au
DAVID WOLSKI NSW ARB No. 5297

PROJECT TITLE:

FIVE RESIDENCES
for Reddall Street Pty Ltd
29, 31 & 35 Reddall St + 8 & 9 College St
Manly

DRAWING TITLE:

29 REDDALL ST.
DA ISSUE 25/01/2023
WINDOW SCHEDULE 03

DRAWING No:

31.12

PROJECT No:

22020

REVISION:

SCALE: 1:50 @ A3

DATE:

25/01/2023

NORTH POINT: