

Nationwide House Energy Rating Scheme

NatHERS Certificate No. #HR-G7AVDN-01

Generated on 25 Oct 2022 using Hero 3.0.1

Property

Address Unit 01, 35 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*	304.6
Unconditioned*	68.9
Total	429.1
Garage	55.5
	NatHERS climate zone
	56 - Mascot AMO



Accredited assessor

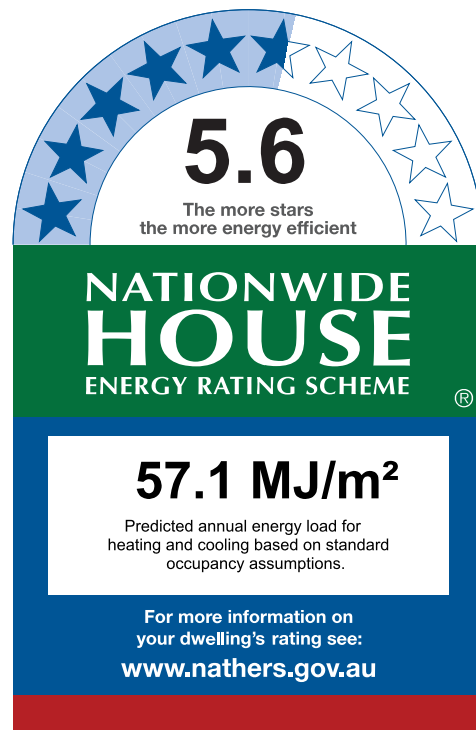
Name	Duncan Hope
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Accreditation No.	DMN/14/1658
Assessor Accrediting Organisation	DMN
Declaration of interest	No Conflict of Interest

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
39.0	18.0
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-G7AVDN-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
ATB-003-01 B	Al Thermally Broken A DG Air Fill Clear-Clear	3.60	0.47	0.45	0.49
ATB-004-01 B	Al Thermally Broken B DG Air Fill Clear-Clear	3.60	0.54	0.51	0.57

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	ATB-003-01 B	WG12	1500	800	Awning	45	NW	None

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
Bedroom 02	ATB-003-01 B	WG04	2400	2200	Awning	45	ESE	None
Bedroom 02	ATB-004-01 B	WG03	2400	415	Fixed	0	SE	None
Bedroom 02	ATB-004-01 B	WG03	375	150	Fixed	0	SE	None
Bedroom 02	ATB-004-01 B	WG03	2400	319	Fixed	0	SE	None
Bedroom 02	ATB-004-01 B	WG03	2400	319	Fixed	0	SSE	None
Bedroom 02	ATB-004-01 B	WG03	2400	273	Fixed	0	SSE	None
Bedroom 02	ATB-004-01 B	WG03	2400	365	Fixed	0	S	None
Bedroom 02	ATB-004-01 B	WG03	2400	415	Fixed	0	SSW	None
Bedroom 02	ATB-004-01 B	WG03	2400	415	Fixed	0	SSW	None
Bedroom 02	ATB-004-01 B	WG03	2400	415	Fixed	0	SW	None
Bedroom 03	ATB-004-01 B	WG10	2400	5100	Sliding	45	NE	None
Bedroom 03	ATB-004-01 B	WG11	2400	3250	Sliding	20	NW	None
Bedroom 04 / Study	ATB-004-01 B	WG01	2400	2140	Sliding	45	SW	None
Bedroom 04 / Study	ATB-003-01 B	WG14	1500	708	Awning	45	NE	None
Ensuite 02	ATB-003-01 B	WG05	2400	1900	Awning	20	ESE	None
Ensuite 02	ATB-004-01 B	WG06	2400	260	Fixed	0	NE	None
Entry Foyer	ALM-003-03 A	WG02	2400	1670	Casement	50	SW	None
Indoor / Outdoor Dayroom	ATB-004-01 B	WG09	2400	4570	Sliding	50	NE	None
Indoor / Outdoor Dayroom	ATB-004-01 B	WG07	2400	3873	Sliding	50	ESE	None
Indoor / Outdoor Dayroom	ATB-004-01 B	WG08	2400	550	Fixed	0	NE	None
Kitchen/Living/Dining	ATB-004-01 B	WL08	2400	4818	Sliding	47	NE	None
Kitchen/Living/Dining	ATB-004-01 B	WL07	2400	2213	Sliding	45	SE	None
Kitchen/Living/Dining	ATB-004-01 B	WL06	2400	5090	Sliding	61	NE	None
Kitchen/Living/Dining	ATB-004-01 B	WL04	2400	650	Fixed	0	SE	None
Kitchen/Living/Dining	ATB-004-01 B	WL10	2400	3160	Sliding	60	NW	None
Kitchen/Living/Dining	ATB-004-01 B	WL05	2400	1240	Fixed	0	NE	None
Kitchen/Living/Dining	ATB-003-01 B	WL09	2400	2114	Awning	20	NW	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*
Laundry	ALM-003-03 A	WG13	2400	800	Casement	90	NW	None
Master Bedroom	ATB-004-01 B	WL03	2400	1762	Sliding	45	NE	None
Master Bedroom	ATB-003-01 B	WL02	2400	5110	Awning	20	ESE	None
Study	ATB-004-01 B	WL11	2400	2500	Sliding	60	NE	None
Entry Foyer	ATB-004-01 B	WL01	2400	1670	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
VEL-010-01 W	VELUX VS - Ventilating Skylight DG 3mm LoE 366 / 8.5mm Argon Gap / 5.36mm Clear La	2.53	0.21	0.20	0.22

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
Entry Foyer	VEL-010-01 W	SKYRW 02	0	1370	1100	N	None	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
Bathroom	BV-REFL-CAV	2800	1819	NW		Yes
Bathroom	BV-REFL-CAV	2800	557	SW	2204	Yes
Bedroom 02	FC-REFL-CAV	2800	2235	ESE		Yes
Bedroom 02	FC-REFL-CAV	2800	471	SE		Yes
Bedroom 02	FC-REFL-CAV	2800	320	SE		Yes
Bedroom 02	FC-REFL-CAV	2800	319	SSE		Yes
Bedroom 02	FC-REFL-CAV	2800	274	SSE		Yes
Bedroom 02	FC-REFL-CAV	2800	366	S		Yes
Bedroom 02	FC-REFL-CAV	2800	415	SSW		Yes
Bedroom 02	FC-REFL-CAV	2800	437	SSW		Yes
Bedroom 02	FC-REFL-CAV	2800	425	SW		Yes
Bedroom 02	FC-REFL-CAV	2800	239	SSW		Yes
Bedroom 02	BV-REFL-CAV	2800	3662	SW		Yes
Bedroom 03	FC-REFL-CAV	2800	5105	NE	1366	Yes
Bedroom 03	FC-REFL-CAV	2800	2548	SE	7214	Yes
Bedroom 03	BV-REFL-CAV	2800	4314	NW	241	Yes
Bedroom 03	FC-REFL-CAV	2800	660	NE	3914	Yes
Bedroom 04 / Study	FC-REFL-CAV	2800	2280	SW	704	Yes
Bedroom 04 / Study	FC-REFL-CAV	2800	471	SE	2713	Yes
Bedroom 04 / Study	BV-REFL-CAV	2800	1085	SW	111	Yes

* Refer to glossary.



External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
Bedroom 04 / Study	BV-REFL-CAV	2800	4783	NW	128	Yes
Bedroom 04 / Study	FC-REFL-CAV	2800	708	NE	1811	Yes
Downstairs	CONCBLOCK-190-FCF-PB	4255	444	NW		No
Downstairs	CONCBLOCK-190-FCF-PB	4255	1382	SW		No
Downstairs	CONCBLOCK-190-FCF-PB	4255	3298	SW		No
Elec. Comms room	CONCBLOCK-190-FCF-PB	4255	163	NE		No
Elec. Comms room	CONCBLOCK-190-FCF-PB	4255	3879	NW		No
Ensuite 01	FC-REFL-CAV	2700	195	SE		Yes
Ensuite 01	FC-REFL-CAV	2700	229	SE		Yes
Ensuite 01	FC-REFL-CAV	2700	374	SE		Yes
Ensuite 01	FC-REFL-CAV	2700	328	SSE		Yes
Ensuite 01	FC-REFL-CAV	2700	391	SSE		Yes
Ensuite 01	FC-REFL-CAV	2700	391	S		Yes
Ensuite 01	FC-REFL-CAV	2700	377	S		Yes
Ensuite 01	FC-REFL-CAV	2700	463	SSW		Yes
Ensuite 01	FC-REFL-CAV	2700	298	SSW		Yes
Ensuite 01	FC-REFL-CAV	2700	373	SSW		Yes
Ensuite 01	FC-REFL-CAV	2700	275	SW		Yes
Ensuite 01	FC-REFL-CAV	2700	1530	SW		Yes
Ensuite 02	BV-REFL-CAV	2800	735	SE		Yes
Ensuite 02	FC-REFL-CAV	2800	2296	ESE		Yes
Ensuite 02	FC-REFL-CAV	2800	308	NE		Yes
Entry Foyer	BV-REFL-CAV	2800	3302	SW		Yes
Entry Foyer	FC-REFL-CAV	2800	446	NW	1518	Yes
Entry Foyer	FC-REFL-CAV	2800	1772	SW	2567	Yes
Garage	CONCBLOCK-190-FCF-PB	4255	5246	SE		No

* Refer to glossary.



External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orient-ation	Horizontal shading feature* projection (mm)	Vertical shading feature
Hallway	FC-REFL-CAV	2700	1000	SW		Yes
Indoor / Outdoor Dayroom	FC-REFL-CAV	2800	4675	NE	3914	Yes
Indoor / Outdoor Dayroom	FC-REFL-CAV	2800	3873	ESE	660	Yes
Indoor / Outdoor Dayroom	FC-REFL-CAV	2800	590	NE	3914	Yes
Kitchen/Living/Dining	BV-REFL-CAV	3106	2962	NW		Yes
Kitchen/Living/Dining	FC-REFL-CAV	2580	4818	NE	926	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2640	2213	SE	5575	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2700	5181	NE	3139	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2924	685	SE	173	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2700	363	NE	3256	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2700	3273	NW	3003	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2700	1250	NE	615	Yes
Kitchen/Living/Dining	BV-REFL-CAV	2980	2114	NW	202	Yes
Kitchen/Living/Dining	FC-REFL-CAV	2924	3223	SE	173	Yes
LMR	CONCBLOCK-190-FCF-PB	4255	1610	SW		No
Laundry	FC-REFL-CAV	2800	1597	NW	960	Yes
Lift	FC-REFL-CAV	2700	1354	SW		Yes
Lift	FC-REFL-CAV	2700	314	SE	1612	Yes
Lift	BV-REFL-CAV	2800	1300	SW	108	Yes
Lift	FC-REFL-CAV	2800	472	NW	2729	Yes
Master Bedroom	FC-REFL-CAV	2700	1762	NE	4510	Yes
Master Bedroom	FC-REFL-CAV	2700	5681	ESE		Yes
Mechanical plant Room	CONCBLOCK-190-FCF-PB	4255	3277	SW		No
Mechanical plant Room	CONCBLOCK-190-FCF-PB	4255	4236	NW		No
Pantry	BV-REFL-CAV	3195	1415	NW	203	Yes
Pantry	FC-REFL-CAV	3516	2581	SW	3326	Yes

* Refer to glossary.

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
Pool equipment room	CONCBLOCK-190-FCF-PB	4255	4263	NW		No
Study	FC-REFL-CAV	2700	2532	NE	3256	Yes
Study	FC-REFL-CAV	2700	2319	NW		Yes
Entry Foyer	BV-REFL-CAV	2700	3297	SW		Yes
Entry Foyer	FC-REFL-CAV	2700	467	NW	1615	Yes
Entry Foyer	FC-REFL-CAV	2700	1712	SW	143	Yes
WC	FC-REFL-CAV	2700	2527	SW		Yes
WC	FC-REFL-CAV	2700	1200	NW		Yes
WIR	FC-REFL-CAV	2700	2305	SW		Yes
WIR	FC-REFL-CAV	2700	396	NW		Yes
Water tanks	CONCBLOCK-190-FCF-PB	4255	1955	NE		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	3516	ESE		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	283	SE		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	284	SE		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	283	SSE		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	284	SSE		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	284	S		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	300	S		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	266	SSW		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	284	SSW		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	283	SW		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	484	SW		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	225	SE		No
Water tanks	CONCBLOCK-190-FCF-PB	4255	3576	SW		No

* Refer to glossary.



Internal wall type

Wall ID	Wall Type	Area (m ²)	Bulk insulation
CONBLOCK-190-PB1	Concrete Block 190mm Concrete - Plasterboard Internally	54.7	0.00
INT-PB	Internal Plasterboard Stud Wall	326.1	0.00

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Bathroom	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	6.8	N/A	0.00	Exposed
Bedroom 02	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	21.2	N/A	0.00	Exposed
Bedroom 03	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	24.6	N/A	0.00	Exposed
Bedroom 04 / Study	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	16.0	N/A	0.00	Exposed
Downstairs	CSOG-200: Concrete Slab on Ground (200mm)	20.3	N/A	0.00	Tile
Elec. Comms room	CSOG-200: Concrete Slab on Ground (200mm)	10.7	N/A	0.00	Exposed
Ensuite 01	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	8.2	N/A	0.00	Exposed
Ensuite 02	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	4.9	N/A	0.00	Exposed
Entry Foyer	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	21.5	N/A	0.00	Exposed
Garage	CSOG-200: Concrete Slab on Ground (200mm)	55.5	N/A	0.00	Exposed
Hallway	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	9.6	N/A	0.00	Exposed
Indoor / Outdoor Dayroom	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	39.0	N/A	0.00	Exposed
Kitchen/Living/Dining	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	89.2	N/A	0.00	Exposed
LMR	CSOG-200: Concrete Slab on Ground (200mm)	3.9	N/A	0.00	Tile
Laundry	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	5.1	N/A	0.00	Exposed
Lift	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	4.2	N/A	0.00	Exposed
Master Bedroom	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	21.9	N/A	0.00	Exposed
Mechanical plant Room	CSOG-200: Concrete Slab on Ground (200mm)	13.9	N/A	0.00	Exposed
Pantry	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	4.7	N/A	0.00	Exposed
Pool equipment room	CSOG-200: Concrete Slab on Ground (200mm)	10.2	N/A	0.00	Exposed
Study	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	5.9	N/A	0.00	Exposed

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
WC	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	3.0	N/A	0.00	Exposed
WIR	SUSP-CONC-200: Suspended Concrete Slab Floor (200mm)	6.2	N/A	0.00	Exposed
Water tanks	CSOG-200: Concrete Slab on Ground (200mm)	22.1	N/A	0.00	Exposed

Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
Bedroom 03	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Bedroom 04 / Study	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Elec. Comms room	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Ensuite 01	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Garage	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Hallway	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Indoor / Outdoor Dayroom	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-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Laundry	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Lift	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Master Bedroom	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Master Bedroom	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	3.50	Yes
Mechanical plant Room	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Pantry	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	3.50	Yes
Study	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
Entry Foyer	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
WC	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No
WIR	SLAB-200-CEIL-01: Concrete Slab (200mm) with Suspended PB Ceiling	0.00	No

* Refer to glossary.

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
Bathroom	1	Exhaust Fan	350	Sealed
Bedroom 02	1	Downlight	100	Sealed
Bedroom 03	3	Downlight	100	Sealed
Downstairs	3	Downlight	100	Sealed
Elec. Comms room	1	Downlight	100	Sealed
Ensuite 01	1	Downlight	100	Sealed
Ensuite 01	1	Exhaust Fan	350	Sealed
Ensuite 02	1	Downlight	100	Sealed
Ensuite 02	1	Exhaust Fan	350	Sealed
Entry Foyer	3	Downlight	100	Sealed
Hallway	1	Downlight	100	Sealed
Indoor / Outdoor Dayroom	4	Downlight	100	Sealed
Kitchen/Living/Dining	13	Downlight	100	Sealed
Kitchen/Living/Dining	1	Exhaust Fan	350	Sealed
LMR	1	Downlight	100	Sealed
Laundry	1	Exhaust Fan	350	Sealed
Master Bedroom	3	Downlight	100	Sealed
Mechanical plant Room	2	Downlight	100	Sealed
Pantry	1	Downlight	100	Sealed
Pool equipment room	1	Downlight	100	Sealed
Study	1	Downlight	100	Sealed
Void	2	Downlight	100	Sealed
WC	1	Exhaust Fan	350	Sealed
WIR	1	Downlight	100	Sealed
Water tanks	3	Downlight	100	Sealed

* Refer to glossary.



Ceiling fans

Location	Quantity	Diameter (mm)
None		

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	1.80	0.50	Medium
SLAB-200-CEIL-01: Concrete Slab (200mm) 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).

#HR-G7AVDN-01 25/10/2022

5.6

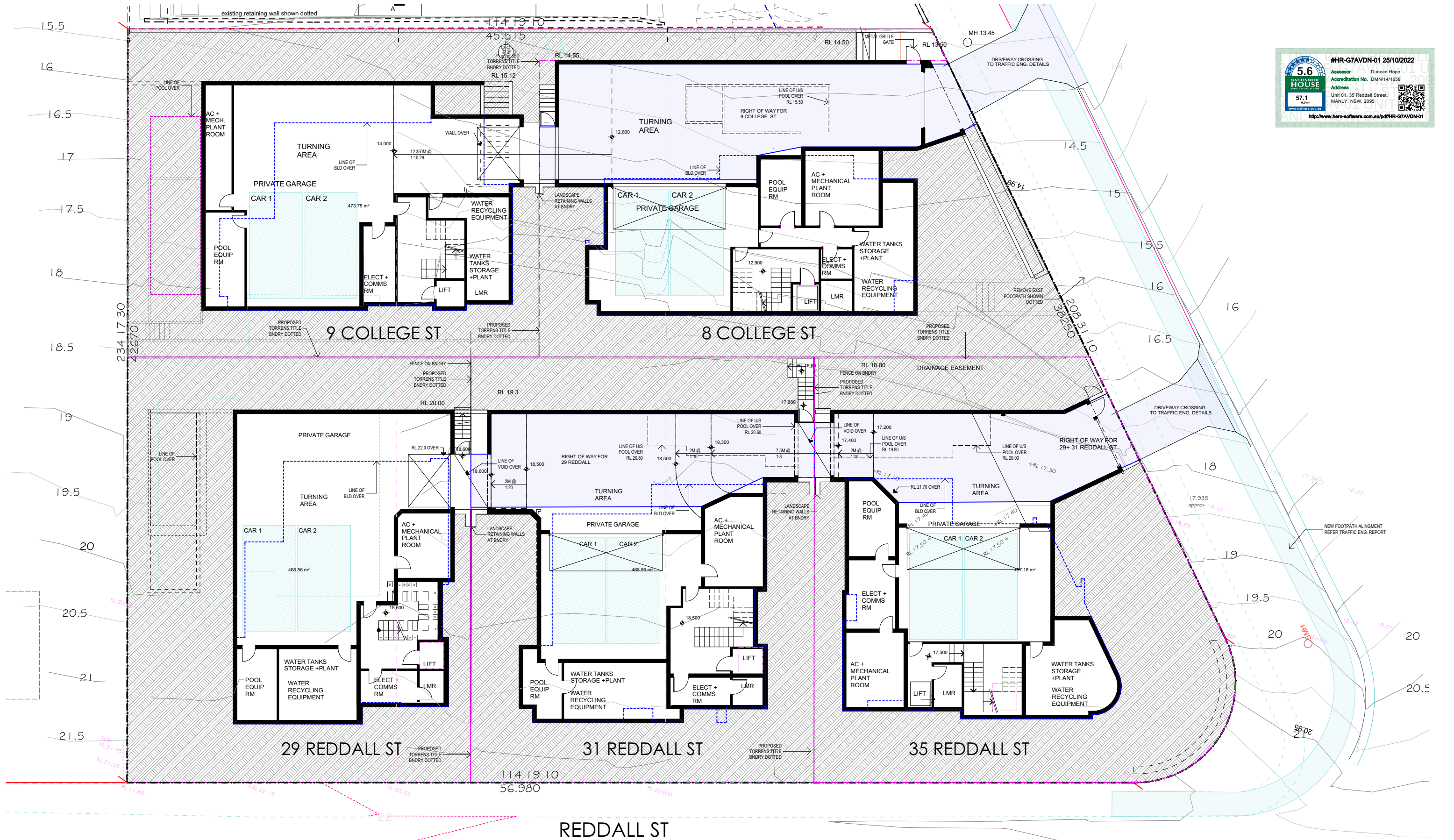
NATIONWIDE HOUSE

57.1

4 star

Assessor Duncan Hope
Accreditation No. DMN/14/1658
Address Unit 01, 35 Reddall Street,
MANLY, NSW, 2095

http://www.hiro-software.com.au/pdf/HR-G7AVDN-01



BASEMENT

DA ISSUE 25/01/2023

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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

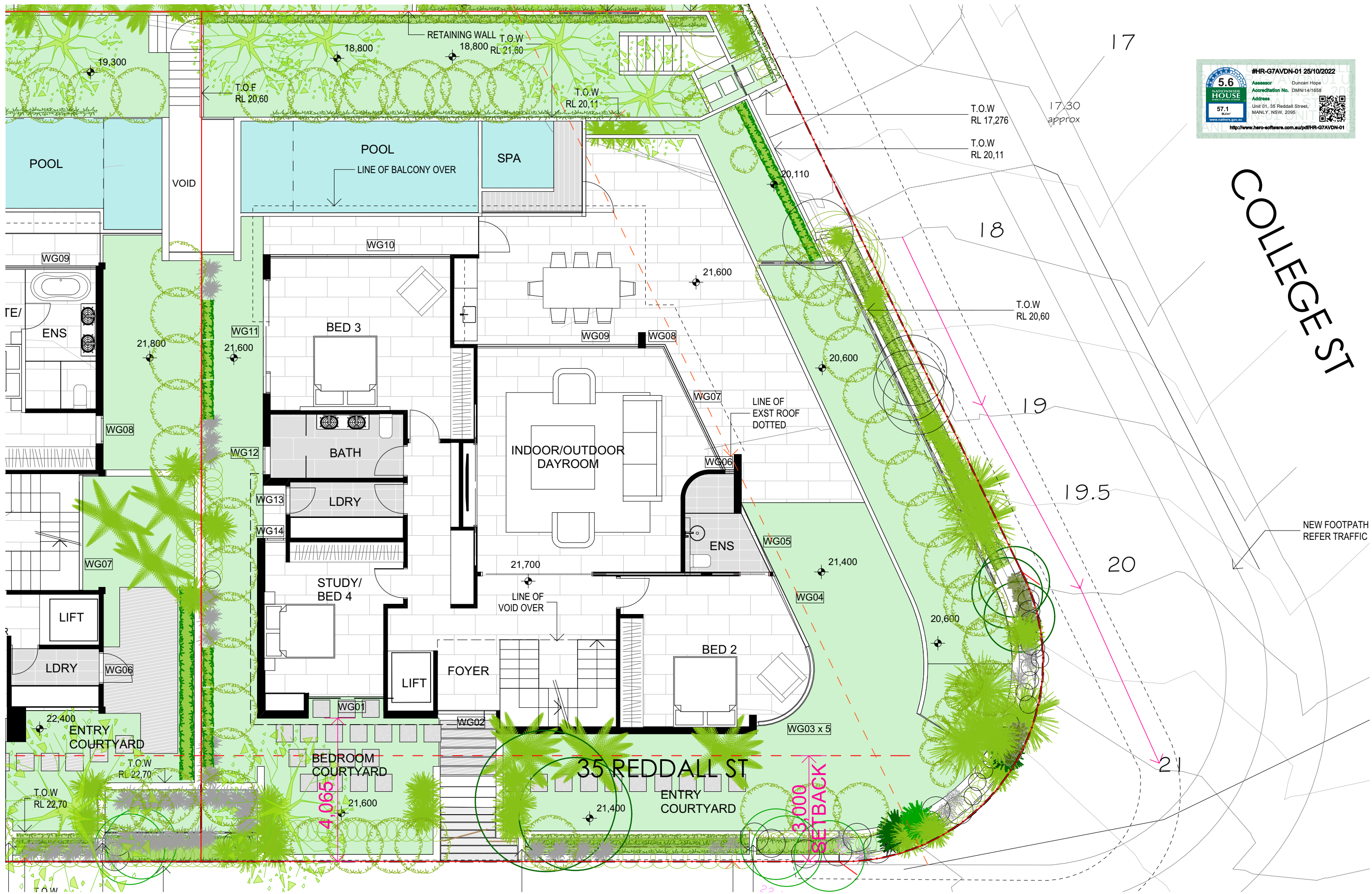
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22020

REVISION:
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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



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Manly

DRAWING TITLE:

35 REDDALL ST.
DA ISSUE 25/01/2023
GROUND FLOOR

DRAWING No:

DA 35.01

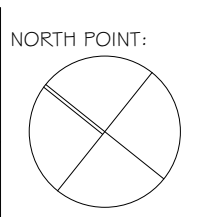
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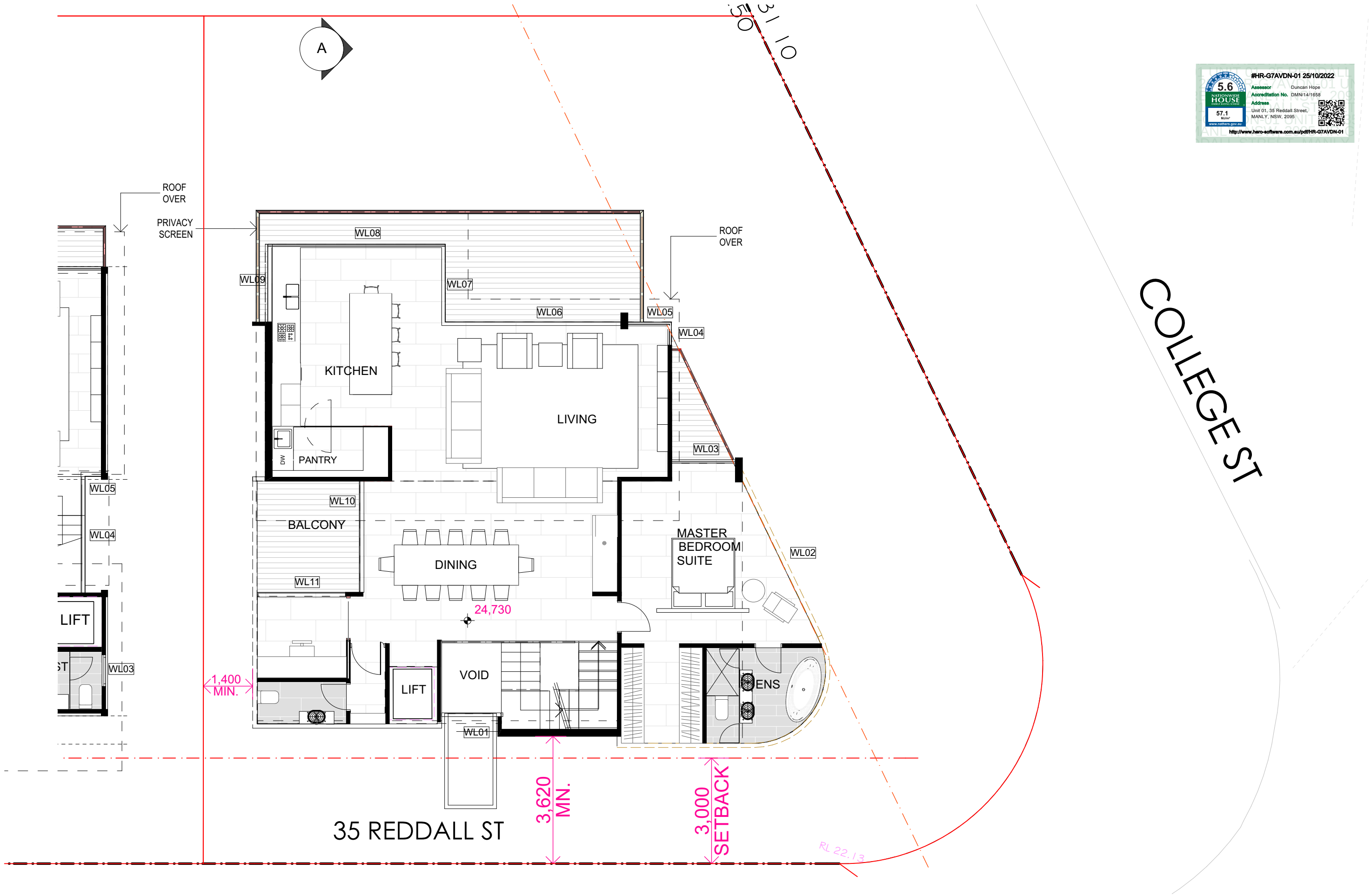
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SCALE: 1:100 @ A3

REVISION:

DATE: 25/01/2023





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Manly

DRAWING TITLE:
35 REDDALL ST.
DA ISSUE 25/01/2023
FIRST FLOOR

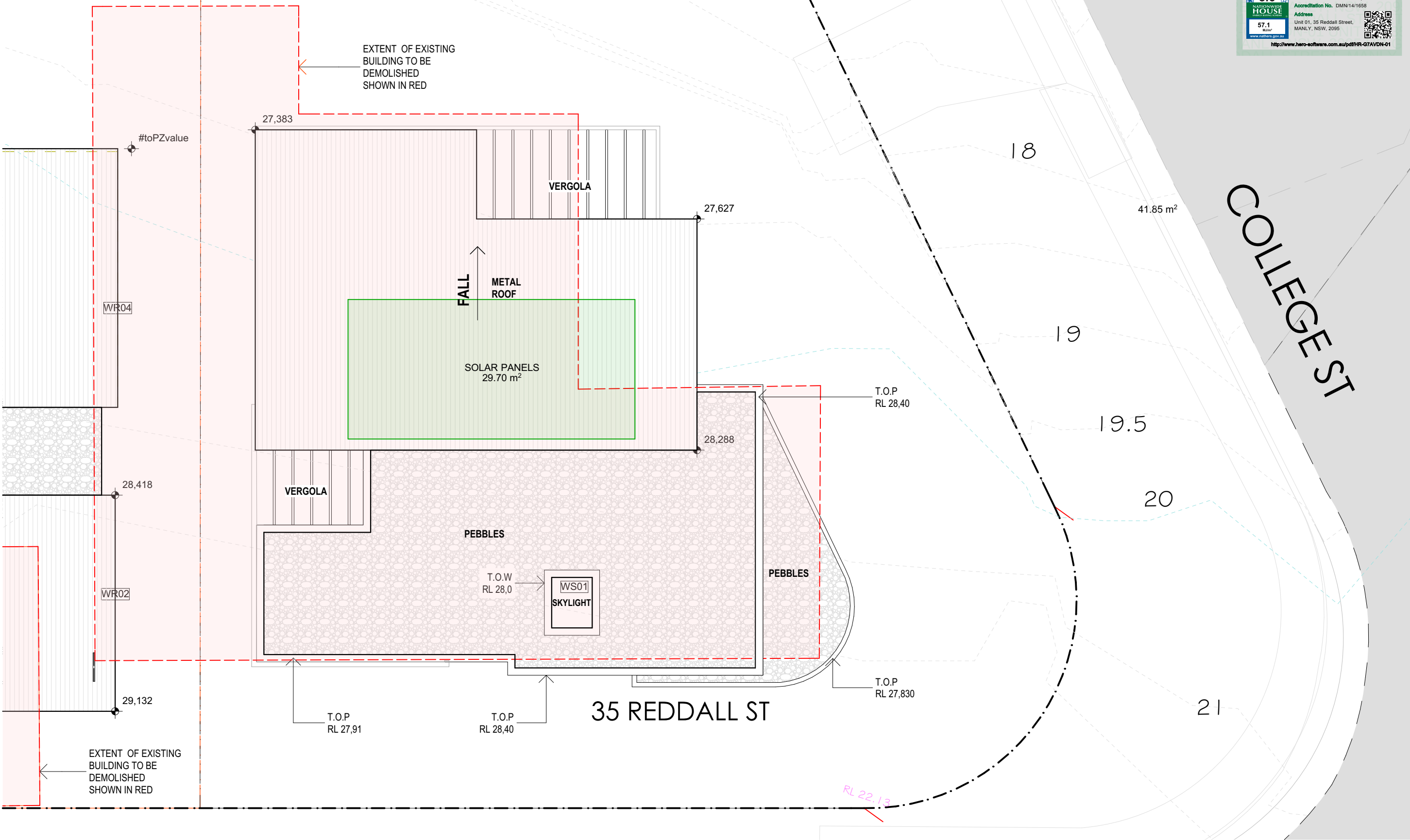
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PROJECT No:	REVISION:
22020	
SCALE:	DATE:
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NORTH POINT:

PLOT DATE: 25/01/2023

EXTENT OF EXISTING
BUILDING TO BE
DEMOLISHED
SHOWN IN RED





#HR-G7AVDN-01 25/10/2022

Assessor Duncan Hope

Accreditation No. DMN/14/1658

Address Unit 01, 35 Reddall Street, MANLY, NSW, 2095

57.1 MJM

www.hero-software.com.au/pdf/HR-G7AVDN-01



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Manly

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35 REDDALL ST.
DA ISSUE 25/01/2023
ROOF

DRAWING No:

DA 35.03

PROJECT No:

22020

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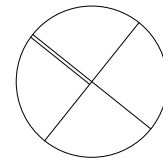
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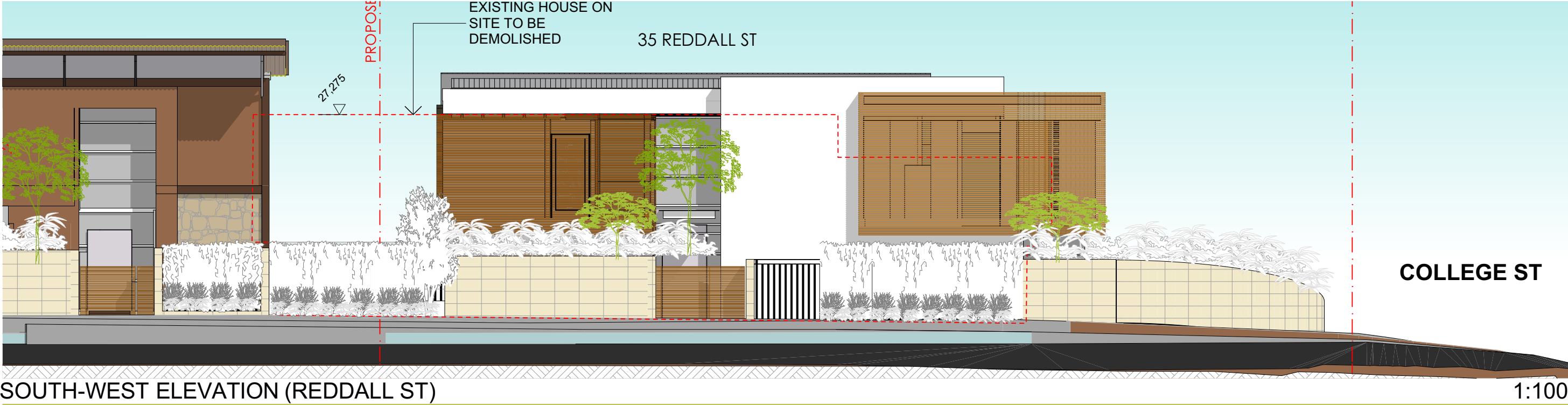
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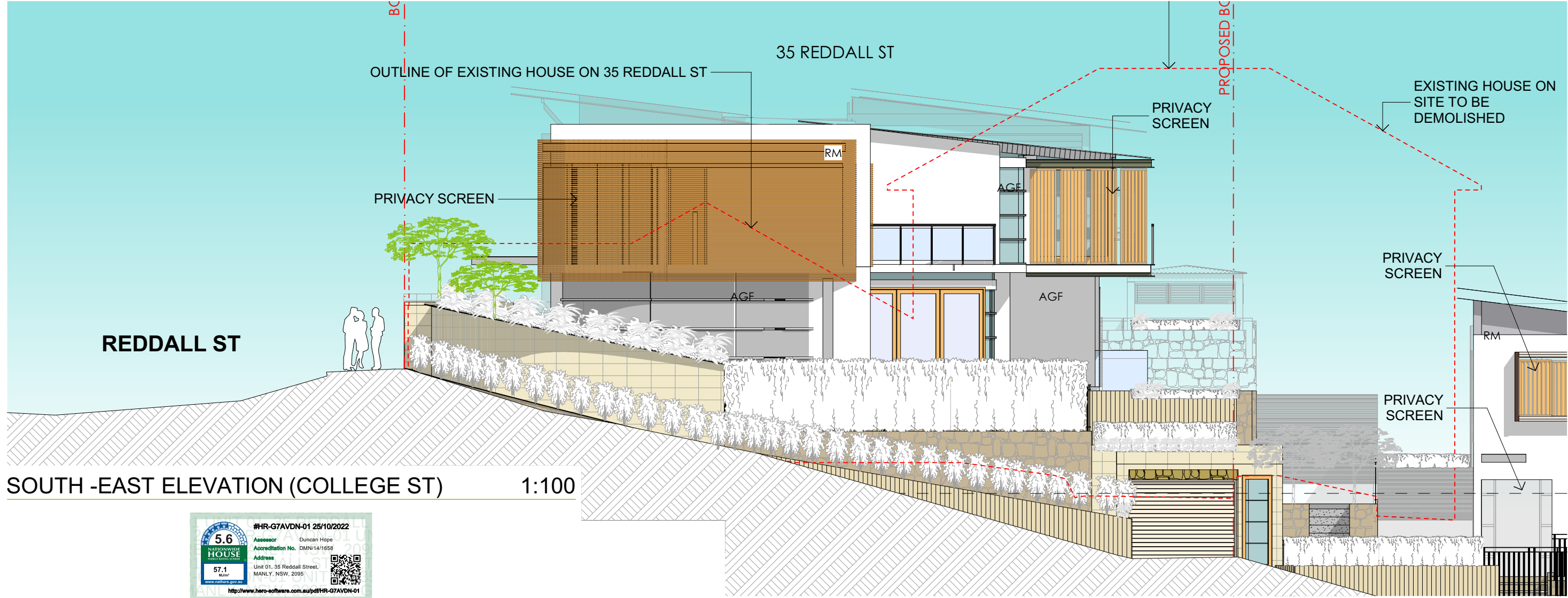
PLOT DATE: 25/01/2023

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



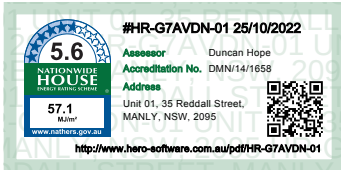
SOUTH-WEST ELEVATION (REDDALL ST)

1:100



SOUTH -EAST ELEVATION (COLLEGE ST)

1:100



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Manly

DRAWING TITLE:

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

DRAWING No:

DA 35.04

PROJECT No:

22020

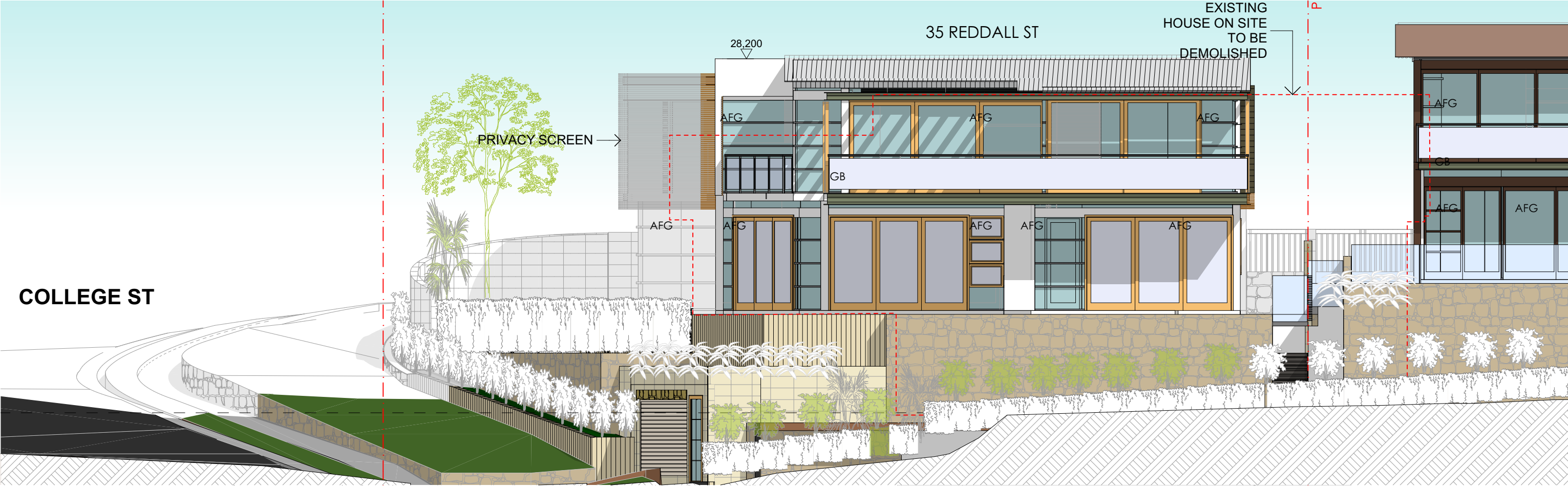
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DATE: 25/01/2023

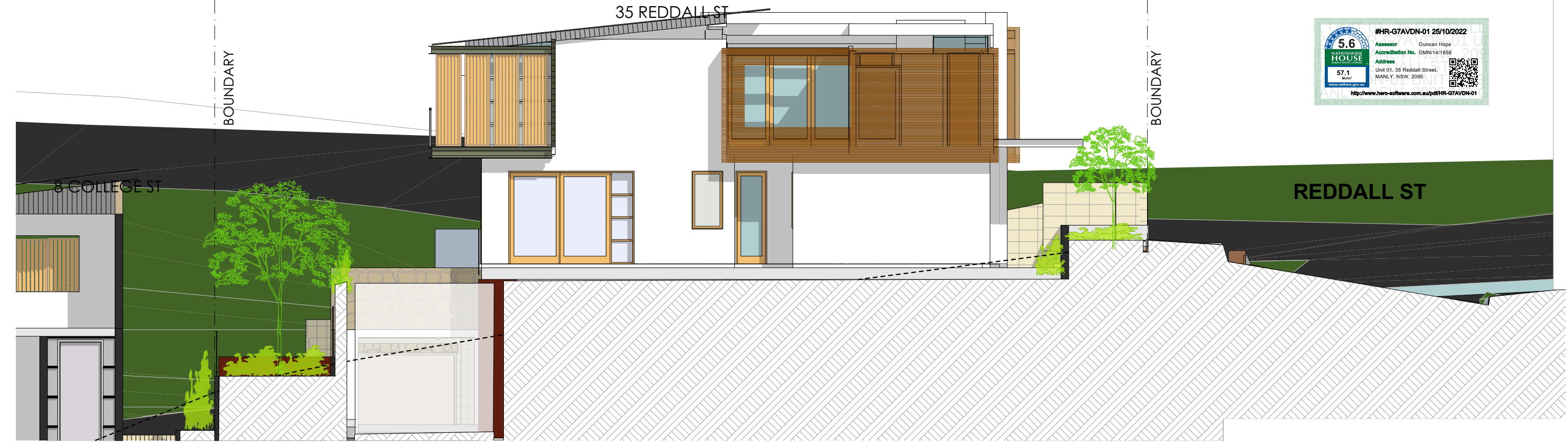
NORTH POINT:

PLOT DATE: 25/01/2023



NORTH- EAST INTERNAL ELEVATION

1:100



NORTH- WEST INTERNAL ELEVATION

1:100

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Manly

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

DRAWING No:

DA 35.05

PROJECT No:

22020

REVISION:

DATE: 25/01/2023

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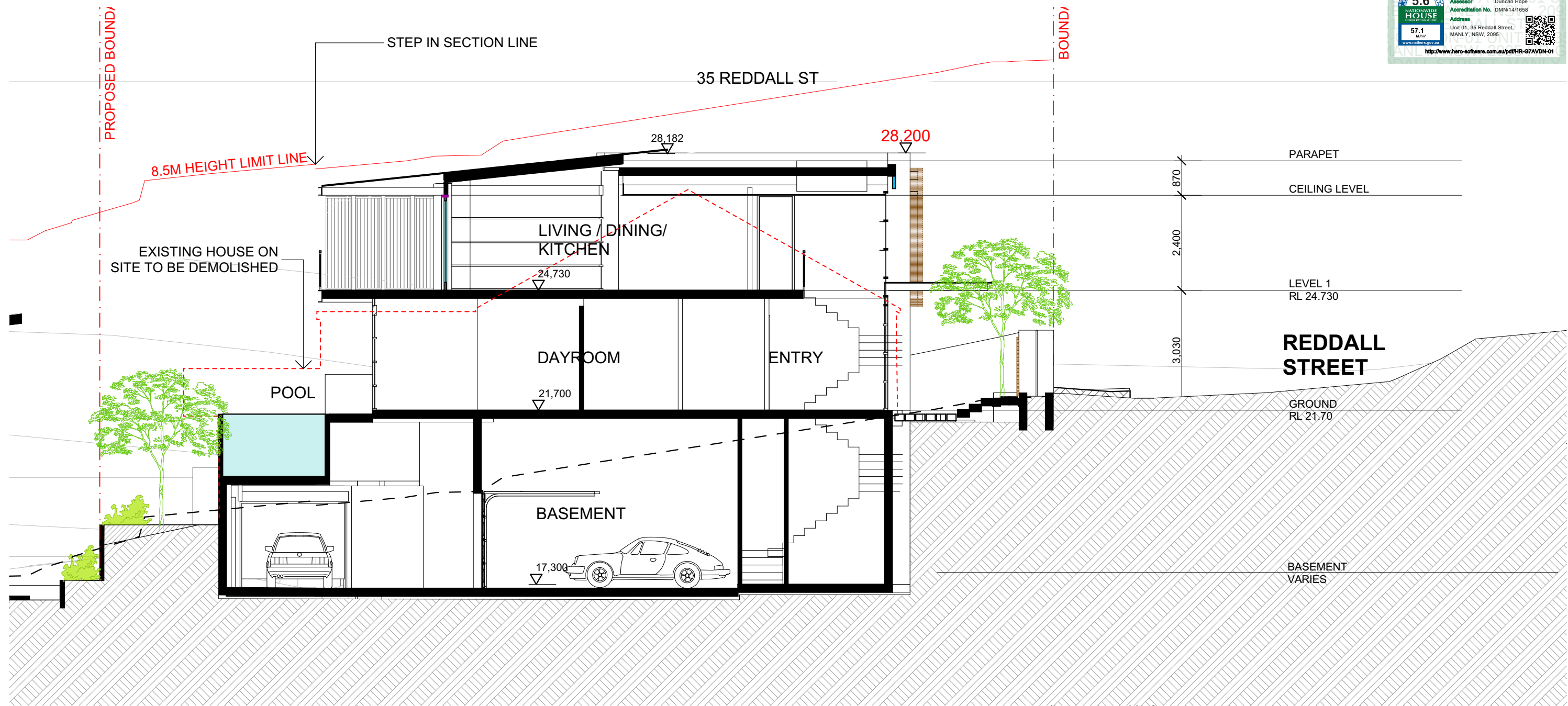
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NORTH POINT:

PLOT DATE:

25/01/2023

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



LONG SECTION A

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35 REDDALL ST.
DA ISSUE 25/01/2023
SECTION

DRAWING No:

DA 35.06

PROJECT No:

22020

SCALE:

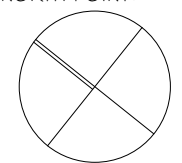
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REVISION:

DATE:

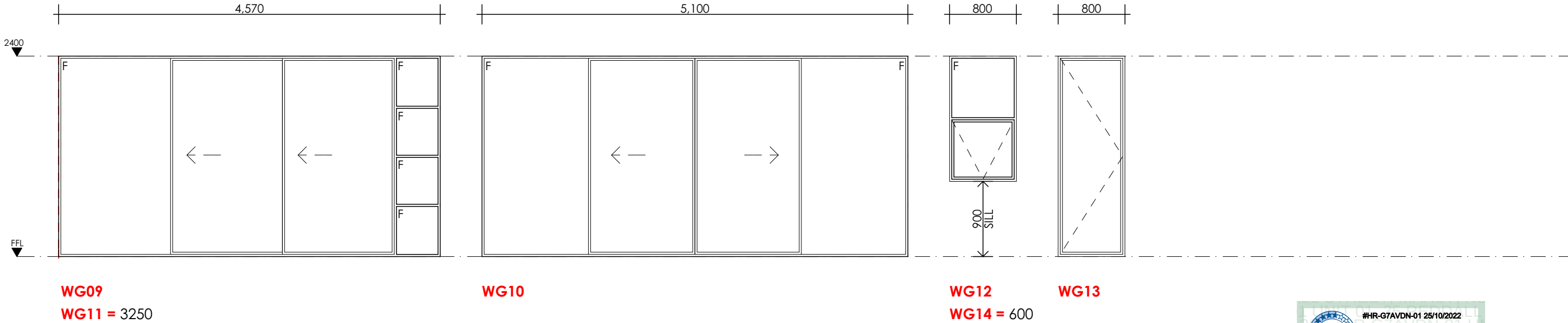
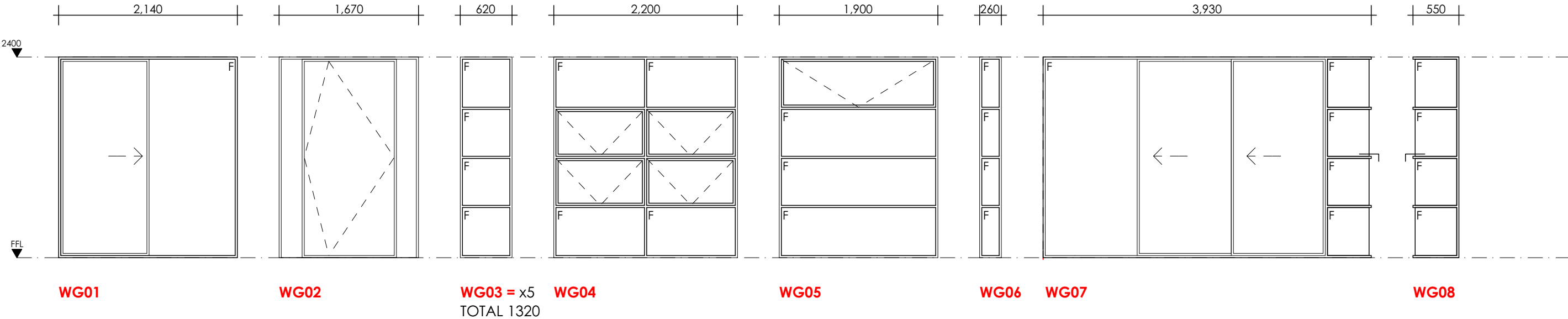
25/01/2023

NORTH POINT:



PLOT DATE: 25/01/2023

GROUND FLOOR



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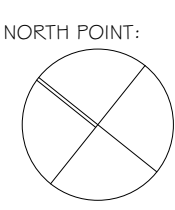
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29 REDDALL ST.
DA ISSUE 25/01/2023
WINDOW SCHEDULE 01

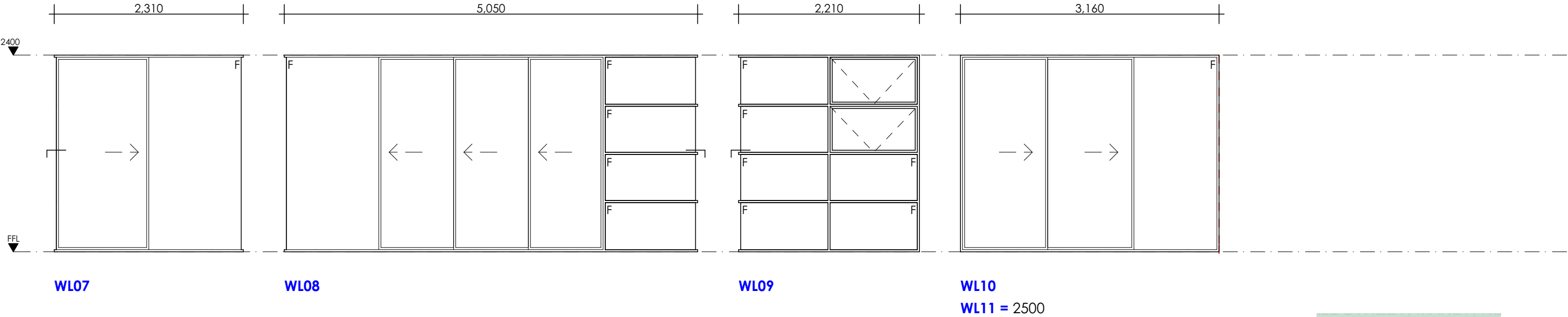
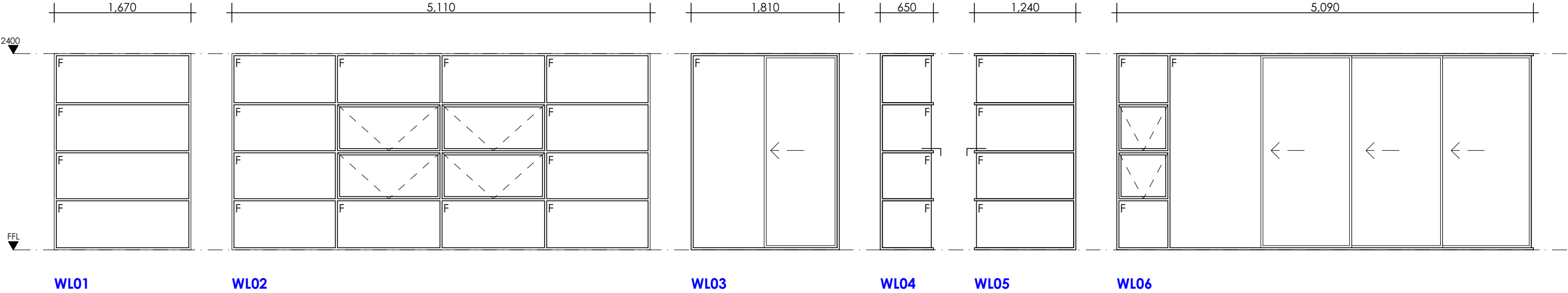
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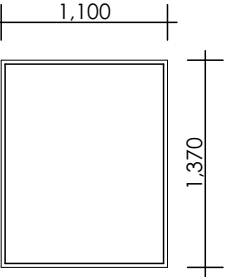
PROJECT No:	REVISION:
22020	
SCALE:	DATE:
1:50 @ A3	25/01/2023



FIRST FLOOR



ROOF SKYLIGHT



WS01

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DRAWING TITLE:

29 REDDALL ST.
DA ISSUE 25/01/2023
WINDOW SCHEDULE 02

DRAWING No:

35.11

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

