

I SHEET INDEX - CONCEPT

SHEET ID	SHEET Name	REV ID
A00	COVER PAGE	C
A01	SCHEME 1 FLOOR PLAN	C
A02	ALTERNATIVE FLOOR PLAN FO...	C
A03	ELEVATIONS	C
A04	SECTIONS & wd SCHEDULE	C
A05	3D VIEWS EXTERIOR	C
A06	3D VIEWS INTERIOR	C
A07	KEY HEALTHY HOME SYSTEMS	C
A08	BUILDING PERFORMANCE	C
A09	BUILDING PERFORMANCE	C

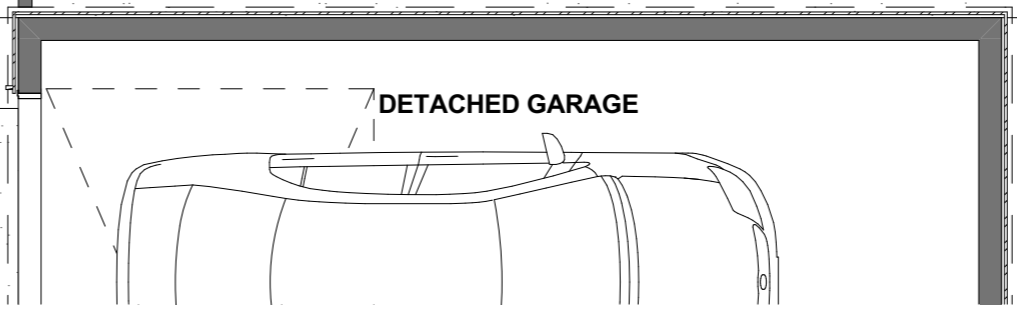
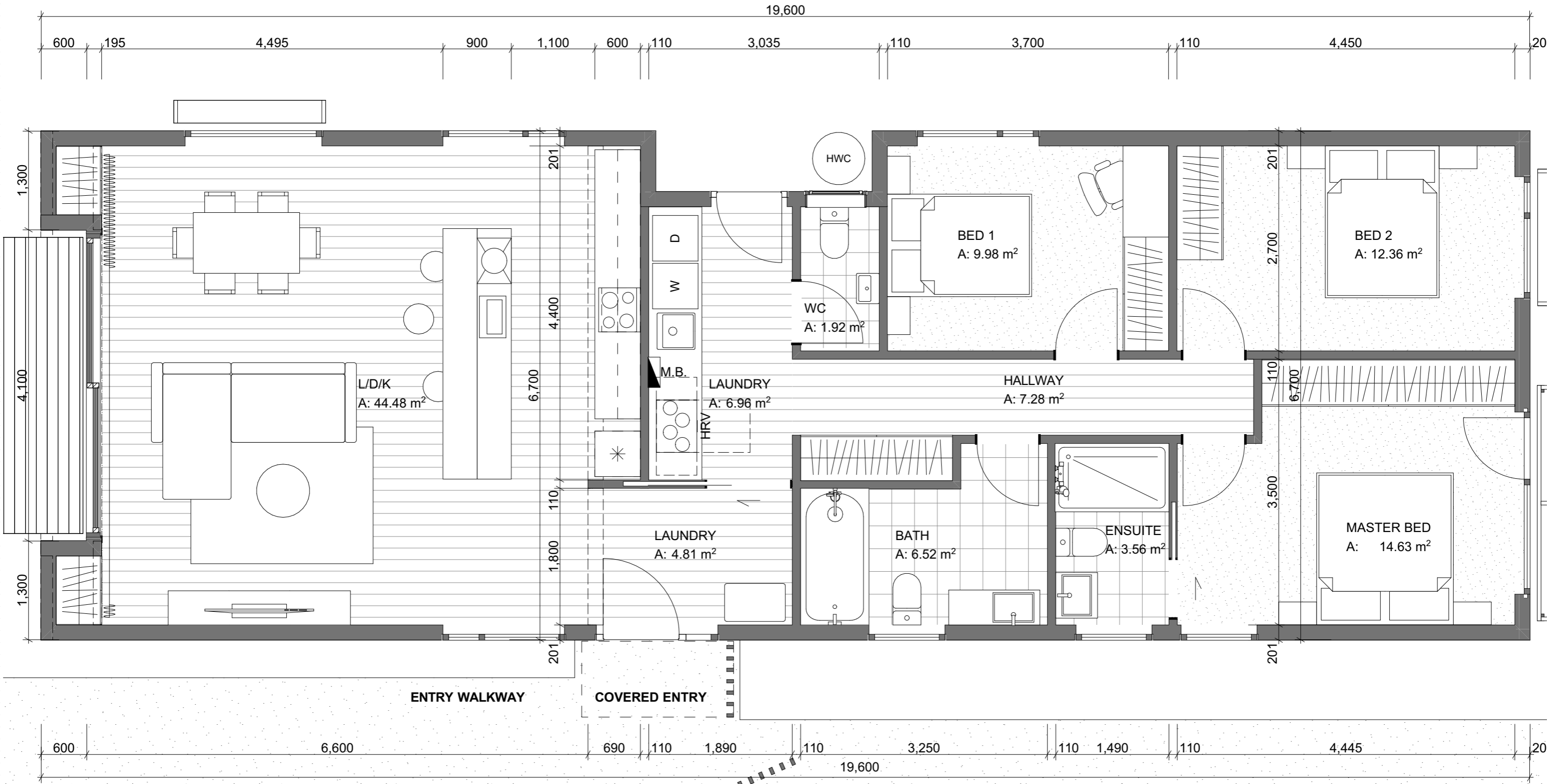


WARM HOUSE COMPANY SCHEME 2

AFFORDABLE HIGH PERFORMANCE PLANS FOR WARM HOUSE COMPANY

CONCEPT
JAN 2022

RESPOND — ARCHITECTS



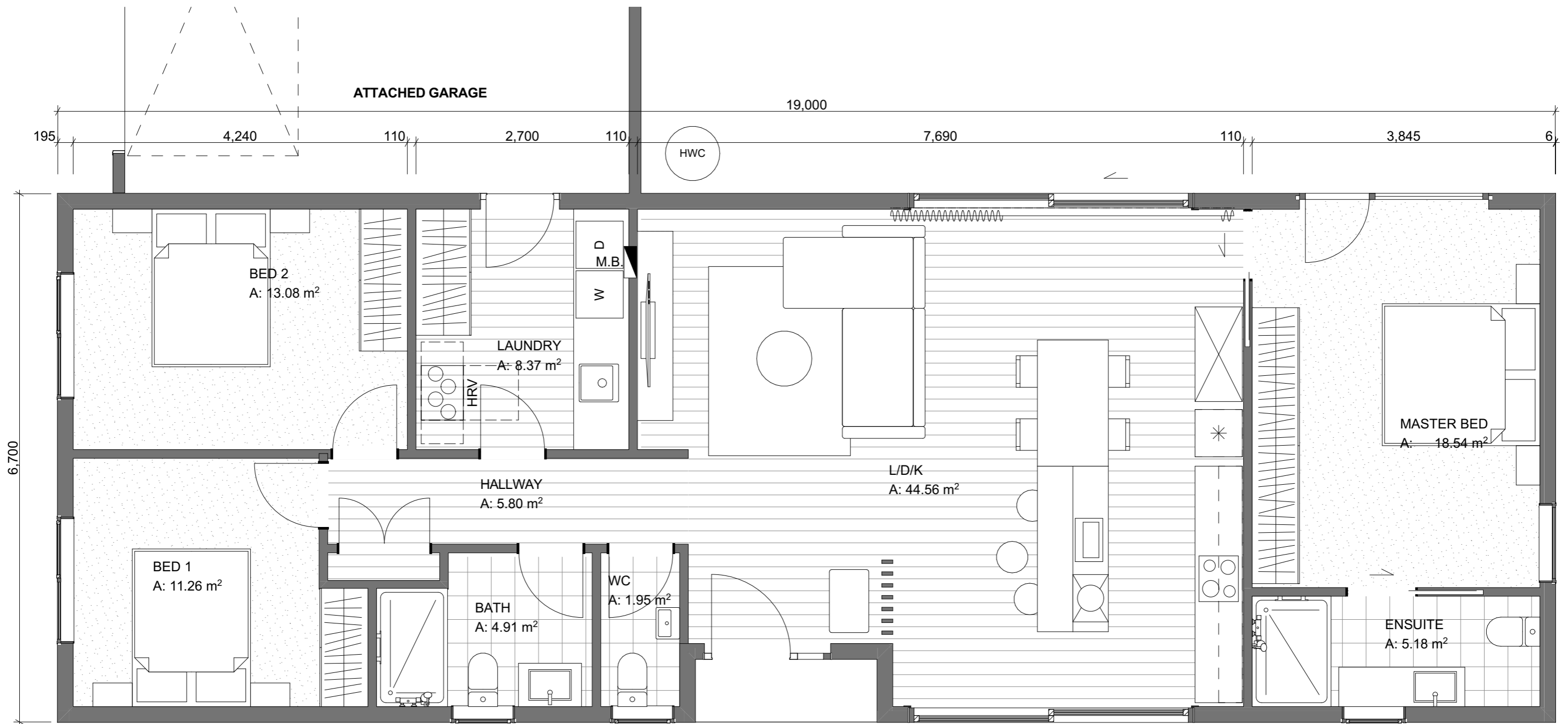
DRIVEWAY

GROSS FLOOR AREA:
126.6 m²

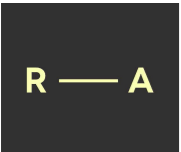
R — A WARM HOUSE COMPANY SCHEME 2
SCHEME 1 FLOOR PLAN

DWG NO. A01 REVISION C DATE 24/01/2022

CONCEPT DRAWINGS BY RESPOND ARCHITECTS
ALL DRAWINGS AND SPECIFICATIONS REMAIN THE COPYRIGHT PROPERTY OF "PRENDOS NEW ZEALAND LIMITED TRADING AS RESPOND ARCHITECTS" AND SHALL BE CONFIDENTIAL UNDER SECTION 27(3) OF THE BUILDING ACT AND SECTION 42 OF THE RESOURCE MANAGEMENT ACT



GROSS FLOOR AREA:
125.4 m²



WARM HOUSE COMPANY SCHEME 2
ALTERNATIVE FLOOR PLAN FOR OTHER SITE TYPE

DWG NO. A02 REVISION C DATE 24/01/2022

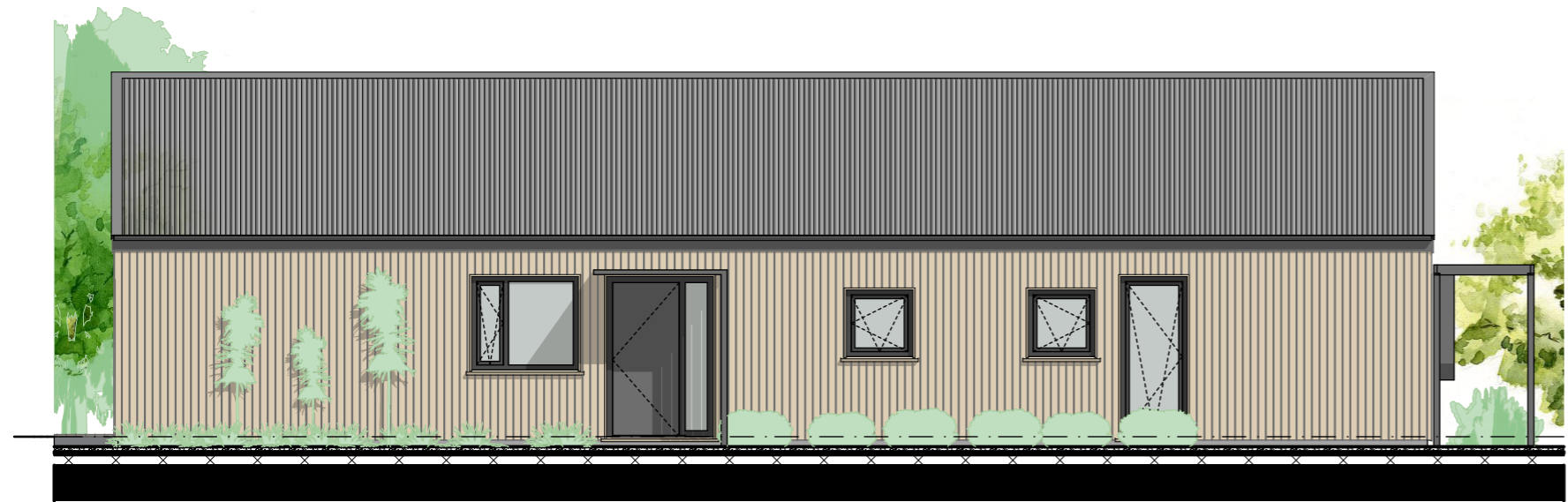
CONCEPT DRAWINGS BY RESPOND ARCHITECTS
ALL DRAWINGS AND SPECIFICATIONS REMAIN THE COPYRIGHT PROPERTY OF "PRENDOS NEW ZEALAND LIMITED TRADING AS RESPOND ARCHITECTS" AND SHALL BE CONFIDENTIAL UNDER SECTION 27(3) OF THE BUILDING ACT AND SECTION 42 OF THE RESOURCE MANAGEMENT ACT



1 NORTH ELEVATION PROPOSED 1:100



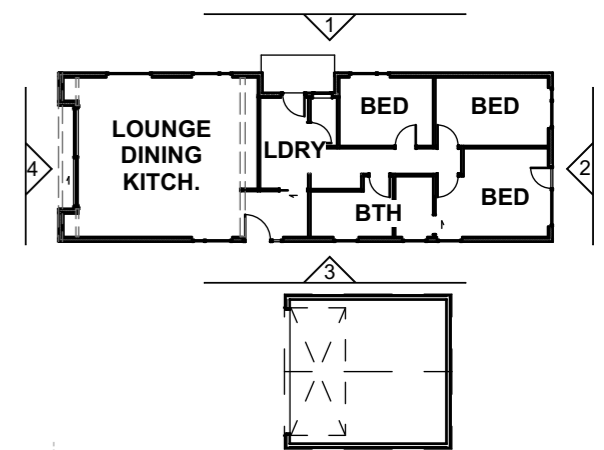
2 EAST ELEVATION PROPOSED 1:100



3 SOUTH ELEVATION PROPOSED 1:100

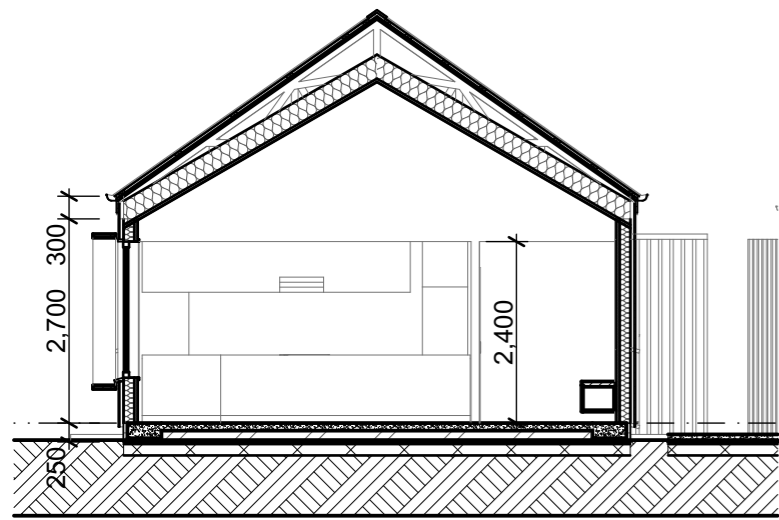


4 WEST ELEVATION PROPOSED 1:100

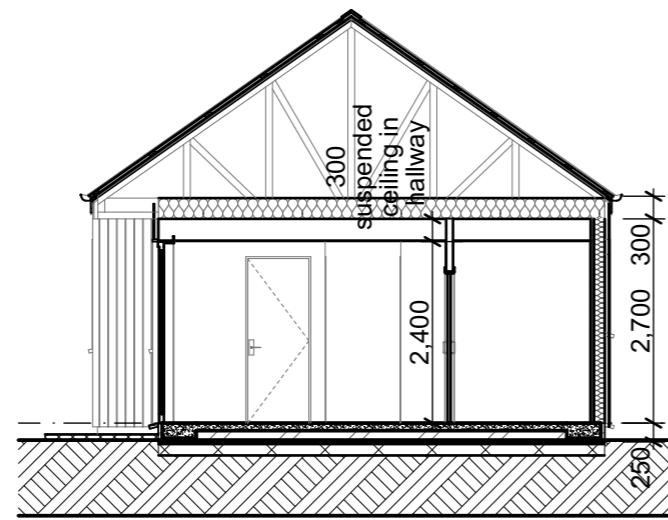


DWG NO. A03
 REVISION C
 DATE 24/01/2022

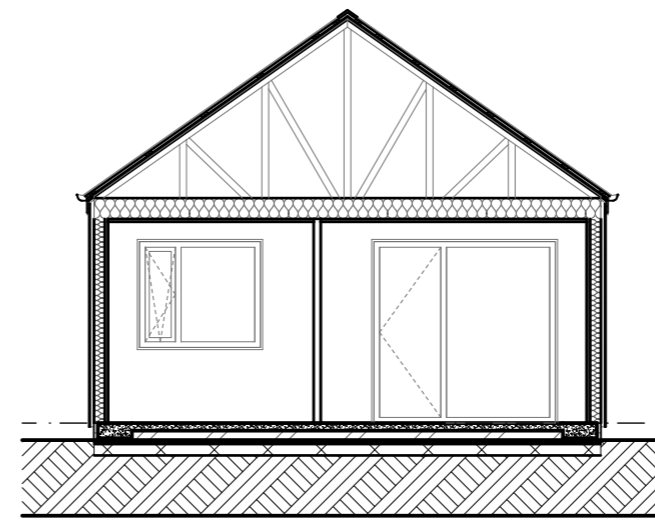
CONCEPT DRAWINGS BY RESPOND ARCHITECTS
 ALL DRAWINGS AND SPECIFICATIONS REMAIN THE COPYRIGHT PROPERTY OF "PRENDOS NEW ZEALAND LIMITED TRADING AS RESPOND ARCHITECTS" AND SHALL BE CONFIDENTIAL UNDER SECTION 27(3) OF THE BUILDING ACT AND SECTION 42 OF THE RESOURCE MANAGEMENT ACT



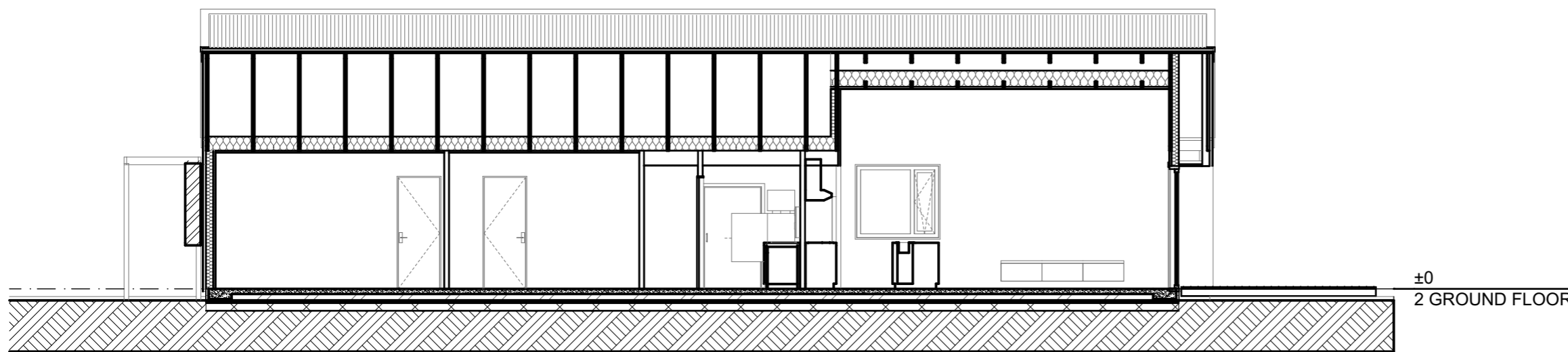
1 SECTION A 1:100



2 SECTION B 1:100



3 SECTION C 1:100



4 SECTION D 1:100

WD TOTAL AREA				
ID	QTY	W x H	VIEW FROM OUTSIDE	AREA
D01	1	1,600×2,400		3.84
D02	1	4,000×2,450		9.60
D03	1	1,000×2,400		2.40
W01	1	1,600×1,400		2.24
W02	1	1,800×1,800		3.24
W03	1	1,600×1,400		2.24
W05	1	1,600×1,400		2.24
W06	1	1,600×1,400		2.24
W07	1	2,400×2,400		5.76
W08	1	1,000×2,400		2.40
W09	1	1,000×1,000		1.00
W10	1	1,000×1,000		1.00
				38.20 m²

5 WD SCHEDULE 1:1



EXTERIOR 1



EXTERIOR 2



LONG SECTION



LIVING, DINING, KITCHEN



BATH & LAUNDRY



BEDROOMS

Timber Aluminium composite frame, triple glazed window



High-end centralised heat recovery ventilation system with smart control



Fully insulated slab and foundation



Air and vapour control membrane



ENERGY MODEL RESULT CHARTS

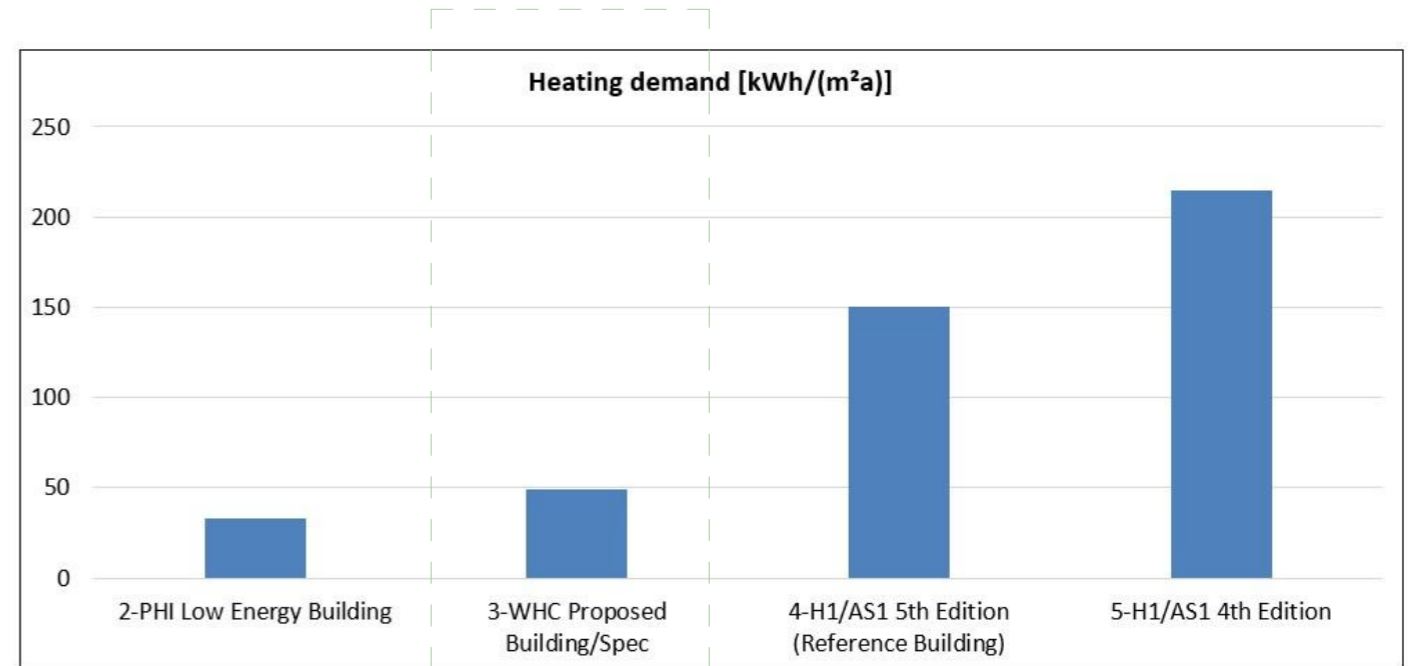
This building has been energy modelled in PHPP (Passive House Planning Package) software in 4 different building performance standards. They are:

1. PHI Low-energy building
2. WHC proposed building/spec
3. H1/AS1 5th edition (new building code)
4. H1/AS1 4th edition (old building code under transition.)

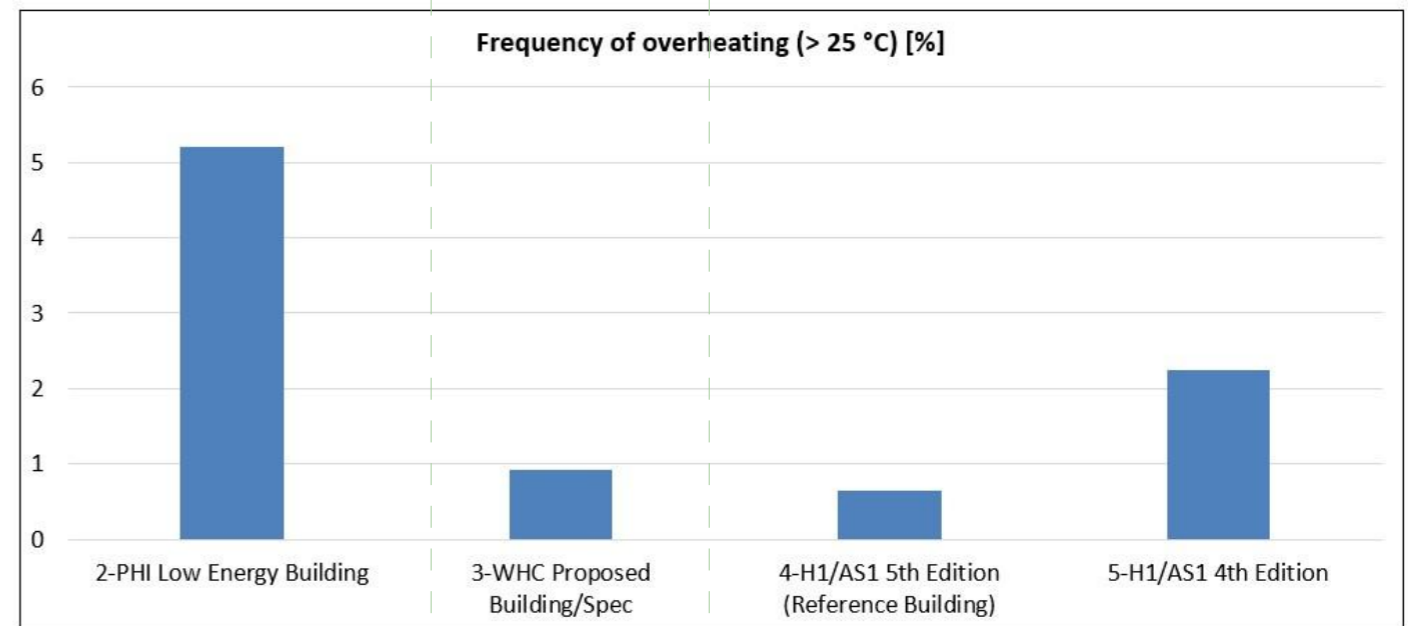
All 4 different orientations are also assessed with the assumption of neighbours on 3 sides like in a typical subdivision. With even distribution of windows in the current design, the differences are within 10% no matter how we orientate the building. The shading, however, must be assessed on project by project basis to guarantee optimal performance.

The performance comparison charts on the right will show you how easy to keep warm in winter and how the house naturally stay cool in summer.

Please refer to the next page for detailed break down of the results and specs.



The heating demand of the Warm House Company building consumes 3X less energy compared to the new building code and 4X+ vs the old building code.



The overheating potential in summer with adequate shading means our proposed building overheats less than 1% in a year and a lot cooler compared to PHI Low Energy Building without specialised shading.

ENERGY MODEL RESULT TABLE + SPECS

		Select the active variant here >>>>>>			
		PHI Low Energy Building	WHC Proposed Building/Spec	H1/AS1 5th Edition (Reference Building)	H1/AS1 4th Edition
		2	3	4	5
Heating demand	kWh/(m ² a)	33.3	49.3	150.1	215.0
Frequency of overheating (> 25 °C)	%	5.2	0.9	0.7	2.3
Floor	The energy model reveals the difficulty of achieving a certified project without specific windows and doors design to optimise solar gain and essential shading on specific site.		R4.0 Fully insulated slab and edges	R1.7 Only edge insulation	R0.8-1.0 Uninsulated slab and edges
Wall	Therefore, the general spec reference is unavailable		R4.4 140+45mm counter insulated wall framing / insulation	R2 Insulated 90 framing with high timber content	R2 Insulated 90 framing with high timber content
Roof			R7.6 275+45mm counter insulated roof framing / insulation	R6.6 210+45mm counter insulated roof framing / insulation	R3.3 140mm insulation between framing
Windows			R1.0 Timber frame + Lowe triple glazing	R0.5 Thermally broken aluminium frame + Lowe double glazing	R0.26 Aluminium frame + low tech double glazing
Ventilation			Heat recovery ventilation system up to 84% efficiency	Opening window only	Opening window only
Airtightness			ACH 1 under blower door test with air/vapour control layer	ACH 4-5 under blower door test, air/vapour unregulated	ACH 4-5 under blower door test, air/vapour unregulated

