

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 980698S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Friday, 17 May 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary						
Project name	19-21438_02					
Street address	40 Wellman Road Fo	orestville 2087				
Local Government Area	Northern Beaches C	ouncil				
Plan type and plan number	deposited 29792	deposited 29792				
Lot no,	2					
Section no.						
Project type	separate dwelling ho	separate dwelling house				
No. of bedrooms	4					
Project score						
Water	✔ 40	Target 40				
Thermal Comfort	✓ Pass	Target Pass				
Energy	✓ 50	Target 50				

Certificate Prepared by

Name / Company Name: Energy Ratings Australia Pty Ltd

ABN (if applicable): 31133256676

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Description of project

Project address	
Project name	19-21438_02
Street address	40 Wellman Road Forestville 2087
Local Government Area	Northern Beaches Council
Plan type and plan number	Deposited Plan 29792
Lot no.	2
Section no.	-
Project type	
Project type	separate dwelling house
No. of bedrooms	4
Site details	
Site area (m²)	830
Roof area (m²)	189
Conditioned floor area (m2)	194.0
Unconditioned floor area (m2)	8.0
Total area of garden and lawn (m2)	562

Assessor details and thermal le	oads			
Assessor number	20390			
Certificate number	0003395720			
Climate zone	56			
Area adjusted cooling load (MJ/m².year)	26			
Area adjusted heating load (MJ/m².year)	27			
Project score				
Water	✔ 40	Target 40		
Thermal Comfort	✓ Pass	Target Pass		
Energy	✓ 50	Target 50		

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Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		V	V
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		V	V
The applicant must install taps with a minimum rating of 3 star in the kitchen in the development.		V	
The applicant must install basin taps with a minimum rating of 3 star in each bathroom in the development.		V	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 3000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	~	V	V
The applicant must configure the rainwater tank to collect rain runoff from at least 189 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		~	v
The applicant must connect the rainwater tank to:			
all toilets in the development			
the cold water tap that supplies each clothes washer in the development			
at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.)			

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Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	•	~	~
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		~	~
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	V	_	v

Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 6 stars.	~	¥	V
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		~	•
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		•	~
The cooling system must provide for day/night zoning between living areas and bedrooms.		~	•
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.5 - 4.0		V	v
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.5 - 4.0		~	~
The heating system must provide for day/night zoning between living areas and bedrooms.		V	v
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		•	V
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off			_ ر
Laundry: natural ventilation only, or no laundry; Operation control: n/a			
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
at least 5 of the bedrooms / study;		100	

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Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 1 of the living / dining rooms;		~	V
• the kitchen;			ا ا
all bathrooms/toilets;		j	
• the laundry;		, and the second	
• all hallways;		, and	
Natural lighting			
the applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting.			J
he applicant must install a window and/or skylight in 3 bathroom(s)/toilet(s) in the development for natural lighting.		v	J
Other			
he applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		J	
he applicant must install a fixed outdoor clothes drying line as part of the development.		J	

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Legend

In these commitments, "applicant" means the person carrying out the development.

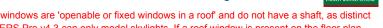
Commitments identified with a in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate(either interim or final) for the development may be issued.

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Certificate number: 0003395720 Certificate Date: 26 Nov 2018 ★ Star rating: 5.9



BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid

Assessor details

Accreditation

number: 20390 Name: Fadi Sweis

Organisation: Energy Ratings Australia Pty Ltd Email: fsweis@eraservices.com.au

Phone: 1800 372 669

Declaration None

of interest:

BERS Pro v4.3.0.2d (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: 40 Wellman Road

Suburb: Forestville

State: Postcode: 2087 **NSW** NCC Class: **New Dwelling 1A** Type:

NatHERS

climate zone: 56 Lot/DP

number: 2/29792 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Roof Tiles

Suspended Timber Floor

Insulation: **R2.0** wall insulation

> R4.1 ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

Net floor area (m²)

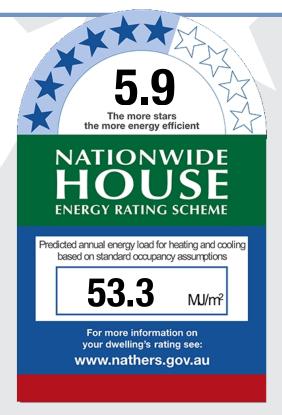
Conditioned: 194.0 Unconditioned: 41 0 Garage: 33.0 TOTAL: 235.0

Annual thermal performance loads (MJ/m²)

Heating: 27.3 Cooling: 26.0 TOTAL: 53.3

Plan documents

697983 Plan ref/date: Prepared by:



Ceiling penetrations

(see following pages for details)

Sealed: Unsealed: 0

TOTAL:** 2 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Certificate number: 0003395720 Certificate Date: 26 Nov 2018 ★ Star rating:



Building features

Window type and performance value				
Window type	U-value	SHGC		
WID-006-13 A Al Residential Sliding Window SG 6CS_Clr	4.9	0.62		
ALM-002-01 A Aluminium B SG Clear	6.7	0.70		
ALM-001-01 A Aluminium A SG Clear	6.7	0.57		
	Window type WID-006-13 A Al Residential Sliding Window SG 6CS_Clr	Window type WID-006-13 A AI Residential Sliding Window SG 6CS_Clr 4.9 ALM-002-01 A Aluminium B SG Clear 6.7		

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	WID-006-13 A	n/a	2000	1800	N	No Shading
Kitchen/Living	WID-006-13 A	n/a	2000	1800	N	No Shading
Kitchen/Living	WID-006-13 A	n/a	2095	2410	N	No Shading
Kitchen/Living	WID-006-13 A	n/a	2000	2700	Е	No Shading
Living	WID-006-13 A	n/a	2000	1800	S	No Shading
Study	WID-006-13 A	n/a	2000	1800	S	No Shading
Entry/Hallway	ALM-002-01 A	n/a	2455	375	S	No Shading
Entry/Hallway	ALM-002-01 A	n/a	2455	375	S	No Shading
Bedroom 1	ALM-002-01 A	n/a	2095	495	S	No Shading
Bedroom 1	ALM-002-01 A	n/a	2095	495	S	No Shading
Bedroom 1	ALM-001-01 A	n/a	2095	820	S	No Shading
Bedroom 1	ALM-001-01 A	n/a	1500	1800	S	No Shading
ENS	ALM-002-01 A	n/a	1200	300	W	No Shading
Leisure	ALM-002-01 A	n/a	1200	1800	N	No Shading
Bath	ALM-002-01 A	n/a	1200	1500	Е	No Shading
WC	ALM-002-01 A	n/a	1000	600	Е	No Shading
Bedroom 2	ALM-001-01 A	n/a	1500	1800	S	No Shading
Bedroom 3	ALM-002-01 A	n/a	1200	1800	N	No Shading
Bedroom 4	ALM-002-01 A	n/a	1200	1800	N	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	No insulation	No
EW-2	Cavity Brick	No insulation	No
EW-3	Brick Veneer	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
EW-4	Weatherboard Cavity Panel Direct Fix	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

^{*} Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003395720 Certificate Date: 26 Nov 2018 ★ Star rating:



Building features continued

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage 1	EW-1	6000	2550	E	No	100
Garage 1	EW-2	5595	2550	S	No	50
Garage 1	EW-1	5595	2550	N	No	100
Kitchen/Living	EW-3	9500	2550	N	No	50
Kitchen/Living	EW-3	4000	2550	Е	No	50
Kitchen/Living	EW-3	4695	2550	W	No	50
Pantry	EW-3	2240	2550	W	No	50
Living	EW-3	3895	2550	S	No	50
Living	EW-3	4245	2550	W	No	50
Study	EW-3	3195	2550	S	No	50
Study	EW-3	1200	2550	E	No	50
Entry/Hallway	EW-3	2390	2550	S	No	2150
Bedroom 1	EW-4	4045	2550	W	No	600
Bedroom 1	EW-4	600	2550	Е	No	3950
Bedroom 1	EW-4	2750	2550	S	No	650
Bedroom 1	EW-4	600	2550	W	No	4100
Bedroom 1	EW-4	3500	2550	S	No	650
ENS	EW-4	3145	2550	W	No	600
Leisure	EW-4	3140	2550	N	No	650
Bath	EW-4	2140	2550	E	No	700
WC	EW-4	1740	2550	E	No	700
Bedroom 2	EW-4	3645	2550	E	No	700
Bedroom 2	EW-4	3245	2550	S	No	650
Bedroom 3	EW-4	3195	2550	N	No	650
Bedroom 3	EW-4	3645	2550	E	No	700
Bedroom 4	EW-4	3995	2550	W	No	600
Bedroom 4	EW-4	3145	2550	N	No	650

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	15.0	Bulk Insulation, No Air Gap R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	183.0	No insulation	No

Floors							
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering		
Garage 1	Waffle pod slab 225 mm 100mm	33.3	None	Waffle Pod 225mm	Bare		
Kitchen/Living	Waffle pod slab 300 mm 100mm	44.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm		
Pantry	Waffle pod slab 300 mm 100mm	5.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm		

^{*} Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003395720 Certificate Date: 26 Nov 2018 ★ Star rating:



Building features continued

Living	Waffle pod slab 300 mm 100mm	16.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Study	Waffle pod slab 300 mm 100mm	9.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 300 mm 100mm	2.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Entry/Hallway	Waffle pod slab 300 mm 100mm	19.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Living	Timber Above Plasterboard 19mm	16.0		No Insulation	Carpet 10mm
Bedroom 1/Entry/Hallway	Timber Above Plasterboard 19mm	9.8		No Insulation	Carpet 10mm
Bedroom 1	Suspended Timber Floor 19mm	1.6	Totally Open	No Insulation	Carpet 10mm
ENS/Kitchen/Living	Timber Above Plasterboard 19mm	1.4		No Insulation	Ceramic Tiles 8mm
ENS/Pantry	Timber Above Plasterboard 19mm	6.0		No Insulation	Ceramic Tiles 8mm
Leisure/Kitchen/Living	Timber Above Plasterboard 19mm	15.6		No Insulation	Carpet 10mm
Leisure/PDR	Timber Above Plasterboard 19mm	0.9		No Insulation	Carpet 10mm
Leisure/Entry/Hall way	Timber Above Plasterboard 19mm	8.6		No Insulation	Carpet 10mm
Leisure/Ldry	Timber Above Plasterboard 19mm	1.6		No Insulation	Carpet 10mm
Bath/Kitchen/Living	Timber Above Plasterboard 19mm	3.2		No Insulation	Ceramic Tiles 8mm
Bath/Ldry	Timber Above Plasterboard 19mm	3.3		No Insulation	Ceramic Tiles 8mm
WC/PDR	Timber Above Plasterboard 19mm	1.1		No Insulation	Ceramic Tiles 8mm
WC/Ldry	Timber Above Plasterboard 19mm	0.6		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Study	Timber Above Plasterboard 19mm	9.5		No Insulation	Carpet 10mm
Bedroom 2/PDR	Timber Above Plasterboard 19mm	1.1		No Insulation	Carpet 10mm
Bedroom 2/Entry/Hallway	Timber Above Plasterboard 19mm	1.0		No Insulation	Carpet 10mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	11.4		No Insulation	Carpet 10mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	11.5		No Insulation	Carpet 10mm
Ldry	Waffle pod slab 300 mm 100mm	5.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm

	Cei	ling	ty	pe
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3 71			
Location	Construction	Added insulation	Roof space above
Garage 1	Plasterboard	Bulk Insulation R4.1	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Pantry	Timber Above Plasterboard	No Insulation	No

Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au





Building features continued

Living	Timber Above Plasterboard	No Insulation	No
Study	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Entry/Hallway	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R4.1	Yes
ENS	Plasterboard	Bulk Insulation R4.1	Yes
Leisure	Plasterboard	Bulk Insulation R4.1	Yes
Bath	Plasterboard	Bulk Insulation R4.1	Yes
WC	Plasterboard	Bulk Insulation R4.1	Yes
Bedroom 2	Plasterboard	Bulk Insulation R4.1	Yes
Bedroom 3	Plasterboard	Bulk Insulation R4.1	Yes
Bedroom 4	Plasterboard	Bulk Insulation R4.1	Yes
Ldry	Timber Above Plasterboard	No Insulation	No

Ceiling penetrations						
Location	Number	Туре	Diameter (mm)	Sealed/unsealed		
PDR	1	Exhaust Fans	300	Sealed		
ENS	1	Exhaust Fans	300	Sealed		

Ceiling fans		
Location	Number	Diameter (mm)
None Present		
110110 1 1000111		

Roof type	
Construction	Added Roof colour insulation
Roof Tiles	Foil, Gap Above, Dark Reflective Side Down, Anti-glare Up



Additional information	

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

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 on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

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STANDARD CONSTRUCTION NOTES

WALL FRAMING

ACCORDANCE WITH

 WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE ALL STRUCTURAL TIMBER FRAMING SIZES TO BE IN

AS 1684:2010 NATIONAL TIMBER FRAMING CODE AND ENGINEER'S STRUCTURAL COMPUTATIONS.

WALL BRACING, FIXING, TIE DOWNS, DURABILITY NOTES & ANY ADDITIONAL ENGINEERING REQUIREMENTS TO BE AS PER ENGINEER'S DETAILS.

FLOOR PLAN DIMENSIONS ARE TO FRAME SIZE ONLY. ALL WATER CLOSET DOORS TO BE REMOVABLE IN

ACCORDANCE WITH N.C.C. 3.8.3.3 CENTRE ALL WINDOWS & DOORS INTERNALLY TO

ROOM UNLESS DIMENSIONED OTHERWISE PROVIDE 2No. 90mm x 45mm JAMB STUDS TO ALL INTERNAL DOOR OPENINGS AND ALL SLIDING ROBE DOOR OPENINGS AS PER DETAIL S-TYP-DOOR-01

ROOF FRAMING

- GARAGE ROOF TO BE TIED DOWN MIN. 1200mm INTO BRICKWORK WITH HOOP IRON STRAPS.
- PREFABRICATED ROOF TRUSSES TO MANUFACTURER'S SPECIFICATIONS. PITCH AS SHOWN ON ELEVATIONS.

EXTERNAL WALLS

 ALL PARAPET WALLS TO BE PROVIDED WITH COLORBOND METAL CAPPING/FLASHING (50mm MIN. OVERLAP TO ALL JOINTS WITH CONTINUOUS SILICONE SEALANT BETWEEN & 30mm MIN. VERTICAL OVERHANG).

SLAB AND FOOTINGS

REINFORCED CONCRETE SLAB AND ASSOCIATED FOOTINGS IN ACCORDANCE WITH ENGINEER'S DETAILS.

SUB-FLOOR VENTILATION IN ACCORDANCE WITH N.C.C. 3.4.1. TO BE PROVIDED TO SUSPENDED TIMBER FLOOR WHERE APPLICABLE.

PLUMBING AND DRAINAGE

 ALL PLUMBING, DRAINAGE & ASSOCIATED WORKS TO COMPLY WITH THE PLUMBING CODE OF AUSTRALIA, N.C.C. & AS 3500 - PLUMBING AND DRAINAGE.

TERMITE PROTECTION

• PROVIDE TERMITE MANAGEMENT SYSTEM AS PER; AS 3660.1:2014 - TERMITE MANAGEMENT

- WINDOWS TO SIDE AND REAR ELEVATIONS ARE ALUMINIUM SLIDING (UNLESS NOTED OTHERWISE).
- WINDOW SIZES ARE NOMINATED AS GENERIC CODES; FIRST TWO NUMBERS REFER TO HEIGHT & SECOND TWO REFER TO WIDTH.
- WINDOW SUPPLIER TO PROVIDE COVER BOARDS TO ALL CORNER WINDOWS UNLESS NOTED OTHERWISE.
- ALL GLAZING TO COMPLY WITH; AS 1288:2006 GLASS IN BUILDINGS
- AS 4055:2012 WIND LOADS FOR HOUSING WINDOW HEAD HEIGHT DIMENSIONS TO BE TAKEN TO THE NEAREST CORRESPONDING BRICK COURSE.
- PROTECTION OF OPENABLE WINDOWS TO BE PROVIDED IN ACCORDANCE WITH N.C.C. 3.9.2.5

STEPS, STAIRS & BALUSTRADES

- ALL STEPS & STAIRS TO HAVE;
 240mm MIN. & 355nm MAX. TREAD DEPTH AND 115mm MIN. & 190mm MAX. RISER HEIGHT IN ACCORDANCE WITH N.C.C. 3.9.1.
- BALLISTRADE IN ACCORDANCE WITH N.C.C. 3.9.2. TO BE INSTALLED WHERE INTERNAL & EXTERNAL LANDINGS EXCEED 1000mm ABOVE GROUND LEVEL.
- PROVIDE SLIP RESISTANCE IN ACCORDANCE WITH N.C.C. 3.9.1.4 AND AS 4586:2013 SLIP RESISTANCE.

WATERPROOFING

- PROVIDE CAVITY FLASHING & WEEP HOLES ABOVE LOWER STOREY OPENINGS.
- WATERPROOFING OF WET AREAS TO COMPLY WITH: AS 3740:2010 WATERPROOFING OF DOMESTIC WET AREAS &/OR N.C.C. 3.8.1

INTERNAL ELEVATIONS

- TILE & CUPBOARD DIMENSIONS ARE APPROXIMATE ONLY & MAY BE ALTERED TO SUIT MODULAR SIZES.
- DIMENSIONS INDICATED TAKEN FROM PLASTER.
- ALL DIMENSIONS ARE SUBJECT TO SITE MEASURE. SHOWER SCREEN HEIGHTS ARE INDICATIVE ONLY AND

WILL ALTER DEPENDING ON SHOWER BASE CONSTRUCTION METHODS

PROVIDE AIR-CONDITIONING DUCTS AND OUTLETS FOR AIR-CONDITIONING BY METRICON

STEEL FLOOR JOISTS

360MM DEEP FLOOR JOIST 300MM DEEP FLOOR JOIST TO WET AREA 22MM RED TONGUE PARTICLE BOARD FLOORING



5.9 NATIONWIDE HOUSE 53.0 MJ/m² 2087

Certificate no.: Assessor Name: Accreditation no.: Certificate date: Dwelling Address: 40 Wellman Road Forestville, NSW

www.nathers.gov.au

0003395720 Fadi Sweis 20390 26 Nov 2018



TABLE OF REVISIONS						
REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECKED		
Α	07.11.18	CONTRACT DRAWINGS	PG	SZK		
В	04.04.19	VARIATION OO1 (CONTRACT SIGNING)	SZN	-		
С	24.04.19	VARIATION OO2 (EXTERNAL)	SZN	-		
D	DD.MM.YY	DESCRIPTION	XX	XX		
E	DD.MM.YY	DESCRIPTION	XX	XX		
F	DD.MM.YY	DESCRIPTION DESCRIPTION	XX	XX		
G	DD.MM.YY	DE5CRIPTION	XX	XX		
Н	DD.MM.YY	DE5CRIPTION	XX	XX		
ı	DD.MM.YY	DESCRIPTION	XX	XX		
J	DD.MM.YY	DESCRIPTION	XX	XX		

DESIGN: TRENTHAM 30

FACADE: KINGSTON CEILING: 24, R

GARAGE: DOUBLE LOCATION: F

COVER SHEET

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FREEDOM

BY METRICON

OWNER: MR OLTER LOT 2, NO. 40 WELLMAN ROAD FORESTVILLE

Build. E, Level 4, 32 Lexington Dr, Baulkham Hills NSW 2153

JOB No: **697983** DATE: 07.11.2018

P.O. Box 7510, Norwest Business Park NSW 2153 Tel: 02 8887 9000 Fax: 02 8079 5901 Contractor Licence No: 174 699 A.C.N. 005 108 752 © COPYRIGHT The ideas and the concepts contained within all drawings and documents is the sole property of Metricon Homes FC DATE: DD.MM.YYYY MST VER: 16.02.2017 REVISION: SCALE: CHECK: SZK DRAWN: PG SHEET: COVER



NORTHERN BEACHES BASED ON WARRINGAH DCP 201

SITE AREA 830 SQM

PROPOSED ROOF COVERAGE

ROOF COVERAGE AREA

LANDSCAPED AREA

581.09 SQM TOTAL LANDSCAPED AREA:

70.01%

40 %

40 %

EXCL. ALL HARD SURFACES, MINIMUM DIMENSION OF 2M

MIN REQUIRED BY COUNCIL

STORMWATER CALCULATION

HARD LANDSCAPE AREAS 249.36 SQN

(INCL. ROOF/DRIVEWAY/PATHS ETC) SITE COVERAGE RATIO 30.04

MAX. ALLOWABLE SITE COVERAGE PRIOR TO 0.S.D. REQUIRED.

PRIVATE OPEN SPACE

PRIVATE OPEN SPACE: 60 SQM

MIN REQUIRED BY COUNCIL 60 SQM MINIMUM DIMENSION OF 5M

BUILDING ENVELOPE

PROVIDE 45 DEGREE PLANE PROJECTED AT 5.0M HIGH ABOVE SIDE BOUNDARY NATURAL GROUND LEVEL.

BUILDING HEIGHT RESTRICTION

MAXIMUM 8.5M RIDGE HEIGHT MAXIMUM 7.2M CEILING HEIGHT (F.F.L. MUST BE ACCURATE TO COMPLY)

MAXIMUM 1000 MM CUT

MAXIMUM 1000 MM FILL DEEP EDGE BEAM TO NATURAL GROUND NO EXPOSED FILL PERMITTED

TERMITE PROTECTION

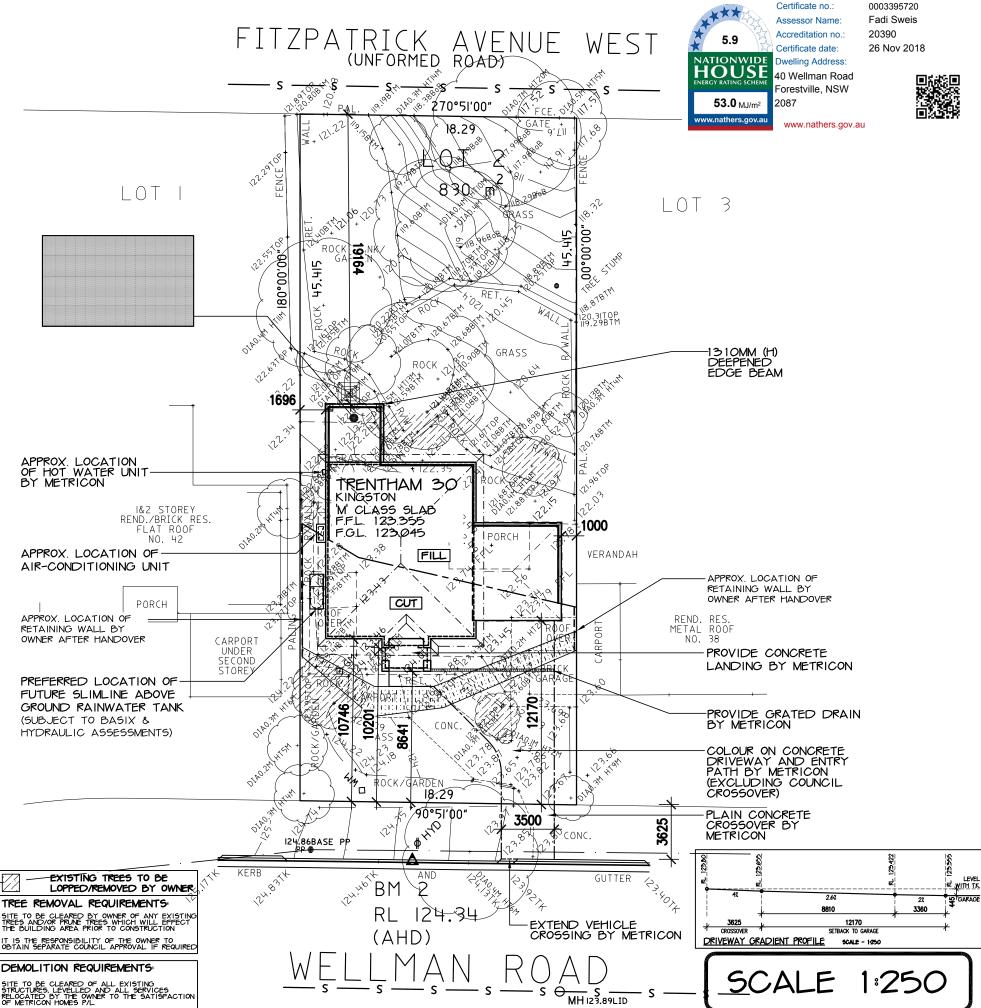
PROVIDE TERMITE PROTECTION IN ACCORDANCE WITH A.S.3660.1

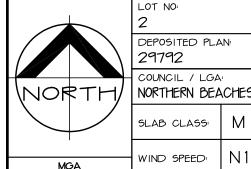
SURVEYORS NOTES

- THIS SURVEY IS SPECIFICALLY FOR CONTOUR PURPOSES ONLY. THE BOUNDARIES OF THE SUBJECT PROPERTY HAVE NOT BEEN INVESTIGATED AND THE POSITION SHOWN IS APPROXIMATE ONLY.
- AREAS AND DIMENSIONS ARE SUBJECT TO SURVEY
- SERVICES SHOWN HAVE BEEN DERIVED FROM VISUAL EVIDENCE APPARENT AT THE TIME OF SURVEY. THE RELEVIANT SERVICE AUTHORITY SHALL BE CONTACTED TO VERIFY THE EXISTENCE AND POSITION OF ALL SERVICES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION.
- CONTOURS ARE INDICATIVE OF SURFACE TOPOGRAPHY ONLY, SURVEYED SPOT LEVELS ARE THE ONLY VALUES TO BE RELIED ON FOR REDUCED LEVELS ON PARTICULAR FEATURES.

DRAWINGS AMENDMENTS

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EXCAVATION NOTES: 50MM (+/-) TOLERANCE TO NOMINATED RL.

EXCAVATE APPROX.1000MM ON R.L. 123.045 AND RETAIN FILL WITH DEEP EDGE BEAM

М

N 1

EXCAVATIONS ARE TO START A MINIMUM OF 1000MM FROM THE EDGE OF THE BUILDING AND ARE TO BE BATTERED BACK TO SUIT

IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE A GRATED DRAIN ACROSS GARAGE OPENINGS (IF REQUIRED) DUE TO CONSTRUCTION OF DRIVEWAY

IMPORTANT NOTES

SITE CUTS ARE SUBJECT TO COUNCIL APPROVAL & NOT TO BE USED BY ANY OTHER CONTRACTORS OTHER THAN METRICON HOMES PTY LTD

STORMWATER TO ABSORPTION/ INFILTRATION/DISPERSAL

SYSTEM VIA RAINWATER TANKS REFER TO HYDRAULIC ENGINEER'S DETAILS

TEMPORARY SITE FENCING:

METRICON TO PROVIDE FENCING TO ANY UNFENCED BOUNDARIES (AS REQUIRED)

ALL WEATHER ACCESS

METRICON TO SUPPLY UP TO 5M SUITABLE ALL WEATHER ACCESS TO BUILDING PLATFORM DURING CONSTRUCTION

SURVEY LEGEND

1	GULLY PIT	_s_	SEWER LINE
∯ HYD	HYDRANT		VEHICLE CROSSING
SIP	SURFACE INLET PIT	" s∨	STOP VALVE
osic	SEWER INSPECTION COVER		DEEP EDGE BEAM
OSMH	SEWER MANHOLE	_В GM	GAS METER
w/w	WATER METER	Ļ₽	LIGHT POLE
F/L	ELECTRICITY BOX	INV	INVERT
SMH	STORMWATER MANHOLE	тĸ	TOP OF KERB
JP	TELSTRA PIT	ко	KERB OUTLET

ASPECT SURVEY DATE: 11.10.2018

CONTOUR INTERVALS 200 MM

LEVELS TO AHD

SITE PLAN



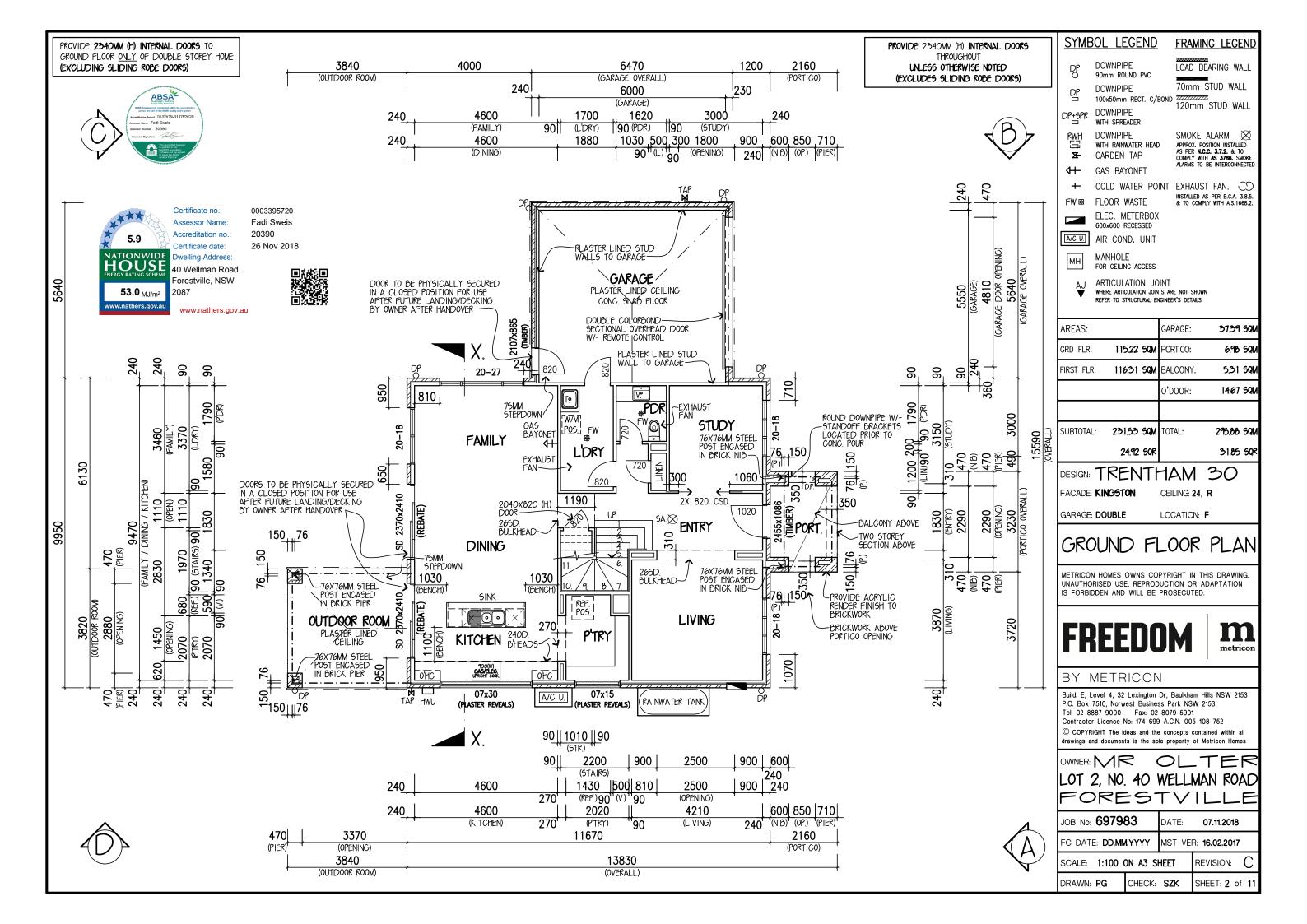
Build. E, Level 4, 32 Lexington Dr, Baulkham Hills NSW 2153 P.O. Box 7510, Norwest Business Park NSW 2153 Tel: 02 8887 9000 Fax: 02 8079 5901 Contractor Licence No: 174 699 A.C.N. 005 108 752 www.metricon.com.au

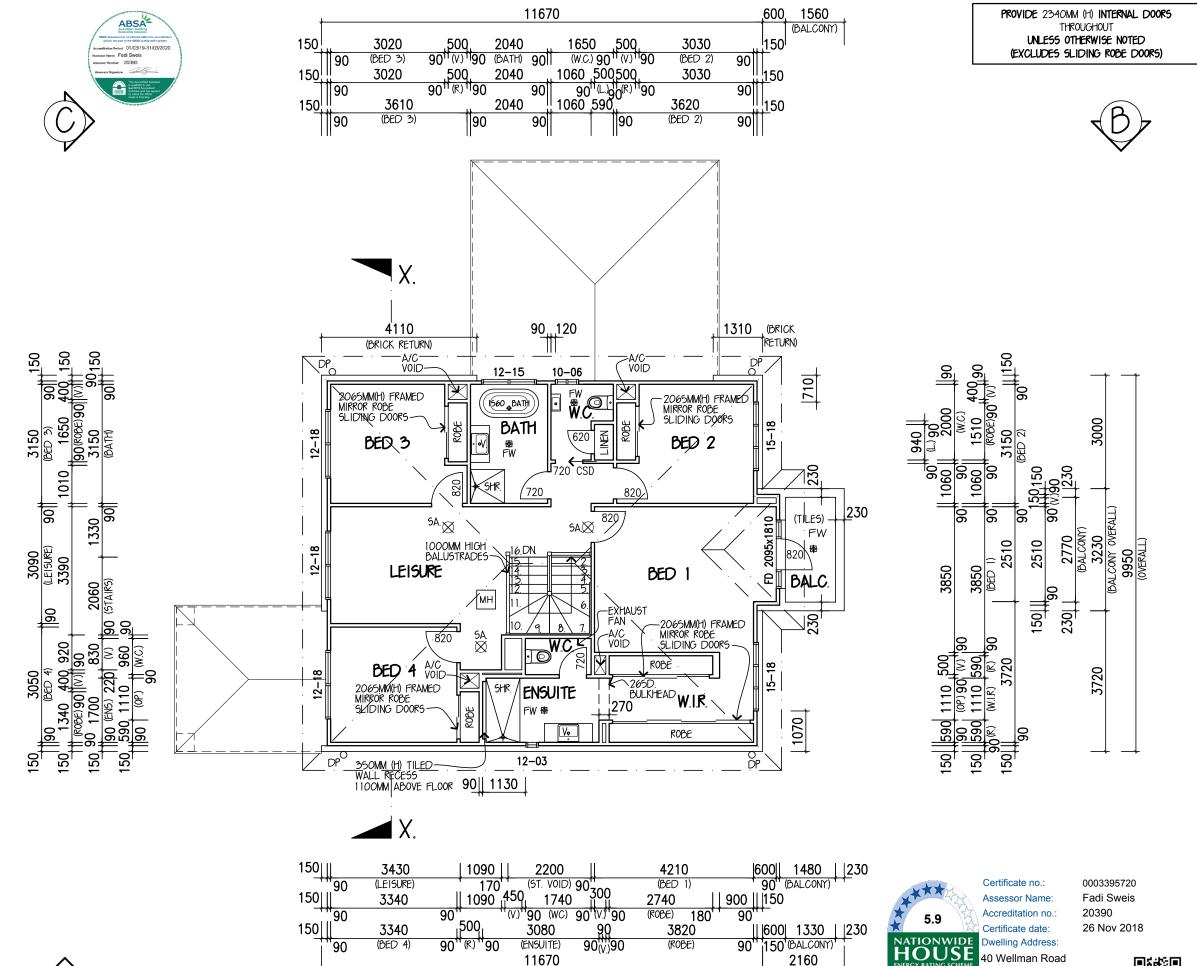
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 \bigcirc L _TER LOT 2, NO. 40 WELLMAN ROAD FORESTVILL

JOB No 697983

DATE: 07.11.2018 DRAWN: PG SCALE: 1:250 SHEET: 1 OF 11 UBD REF: SYD 176 G6





13830 (OVERALL)

SYMBOL LEGEND

FRAMING LEGEND DOWNPIPE

LOAD BEARING WALL

70mm STUD WALL DOWNPIPE 120mm STUD WALL 100x50mm RECT. C/BOND

암 DOWNPIPE DP+SPR WITH SPREADER

90mm ROUND PVC

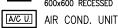
DOWNPIPE WITH RAINWATER HEAD GARDEN TAP X-

APPROX. POSITION INSTALLED AS PER N.C.C. 3.7.2. & TO COMPLY WITH AS 3786, SMOKE ALARMS TO BE INTERCONNECTE

4 GAS BAYONET

COLD WATER POINT EXHAUST FAN. CC INSTALLED AS PER B.C.A. 3.8.5. & TO COMPLY WITH A.S.1668.2.

FLOOR WASTE ELEC. METERBOX 600x600 RECESSED



МН

FW ⊕

MANHOLE FOR CEILING ACCESS



ARTICULATION JOINT WHERE ARTICULATION JOINTS ARE NOT SHOWN REFER TO STRUCTURAL ENGINEER'S DETAILS

DESIGN: TRENTHAM 30

FACADE: **KINGSTON**

CEILING: 24, R

GARAGE: **DOUBLE**

LOCATION: F

FIRST FLOOR PLAN

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OWNER: MR OLTER LOT 2, NO. 40 WELLMAN ROAD FORESTVILL

JOB No: **697983**

DATE: 07.11.2018

FC DATE: **DD.MM.YYYY** MST VER: 16.02.2017

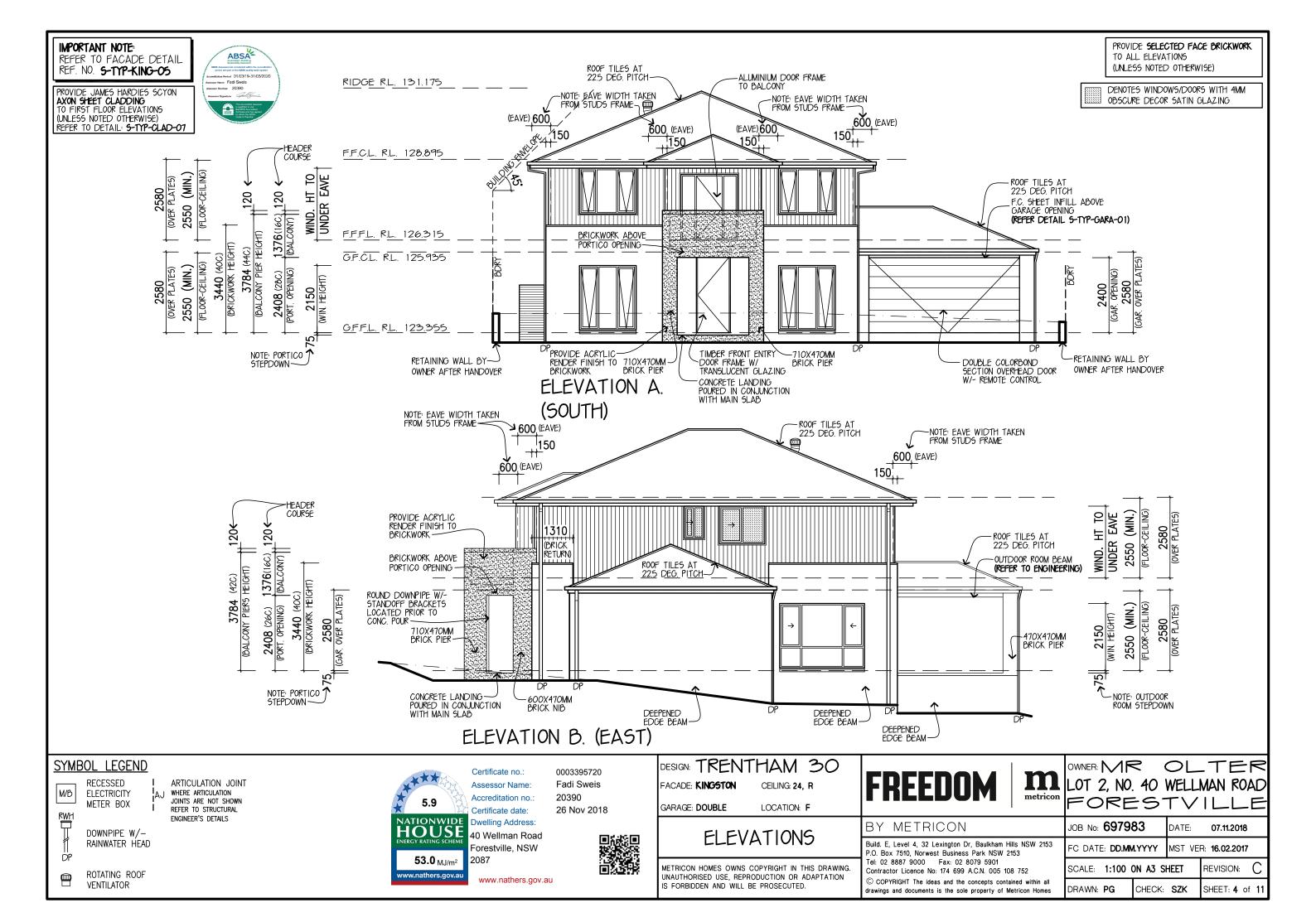
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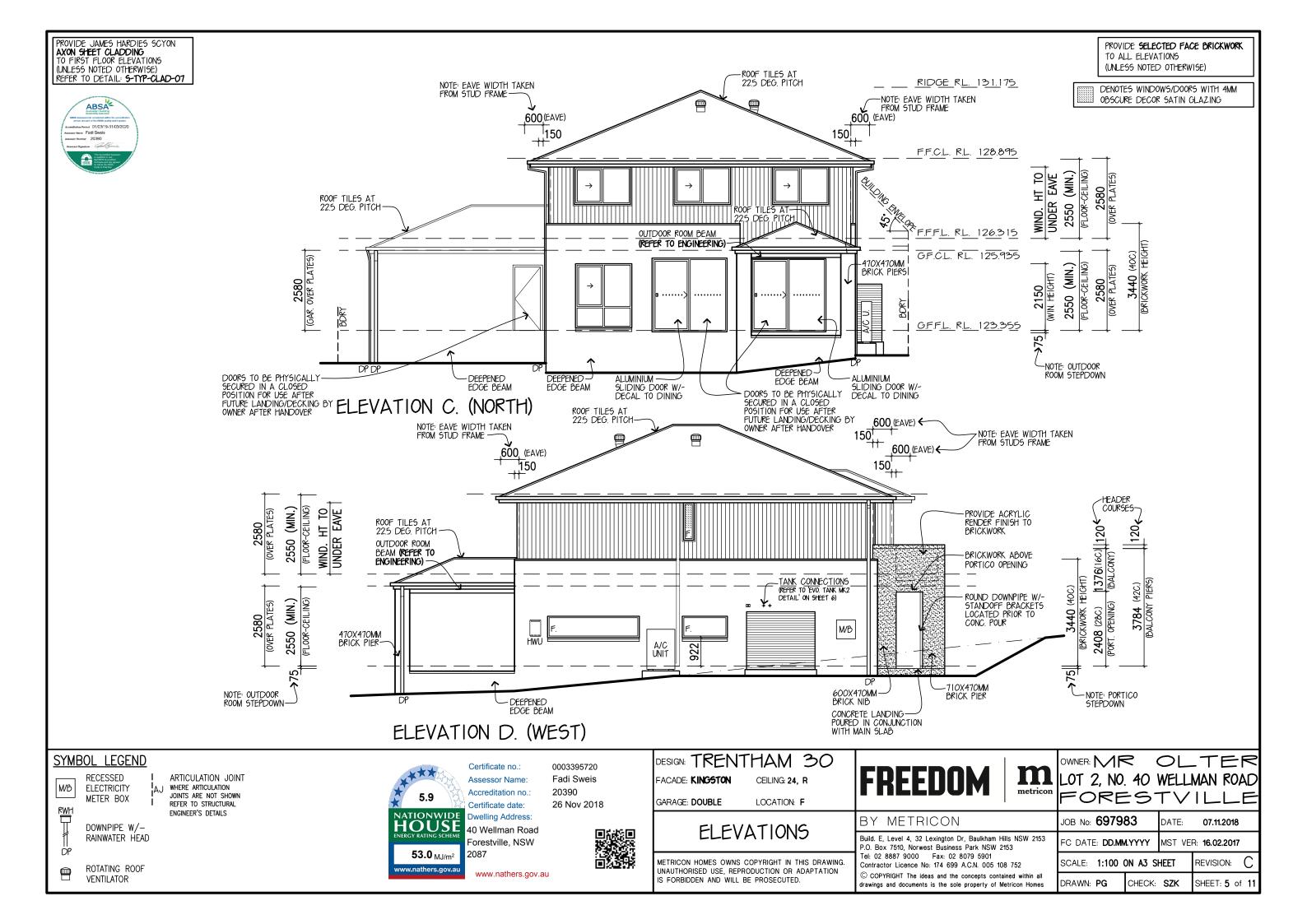
40 Wellman Road Forestville, NSW

2087

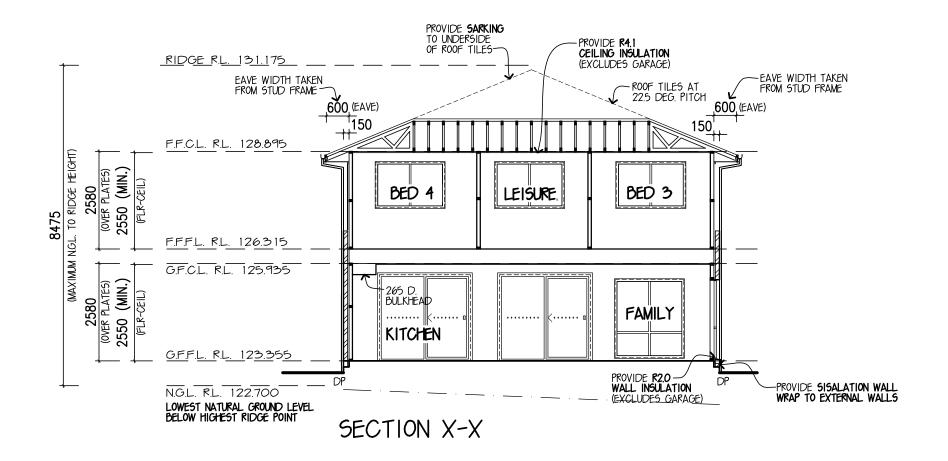
53.0 MJ/m²

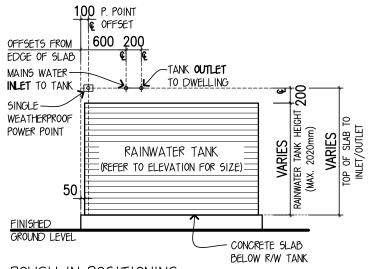
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ROUGH-IN POSITIONING (NOT TO SCALE)

'EVOLUTION' MK2 TANK DETAIL (NOT SUITABLE FOR TANKS EXCEEDING 2020MM HIGH)

5.9

NATIONWIDE HOUSE A FEBRERGY RATING SCHEME FEBRERGY FEBRERGY RATING SCHEME FEBRERGY RATING SCHEME FEBRERGY RATING SCHEME FEBRERGY RAT

Certificate no.:
Assessor Name:
Accreditation no.:
Certificate date:
Dwelling Address:
40 Wellman Roa

40 Wellman Road Forestville, NSW 2087 0003395720

Fadi Sweis

26 Nov 2018

20390

www.nathers.gov.au

DESIGN: TRENTHAM 30

FACADE: KINGSTON

CEILING: 24, R

GARAGE: DOUBLE

LOCATION: F

SECTION

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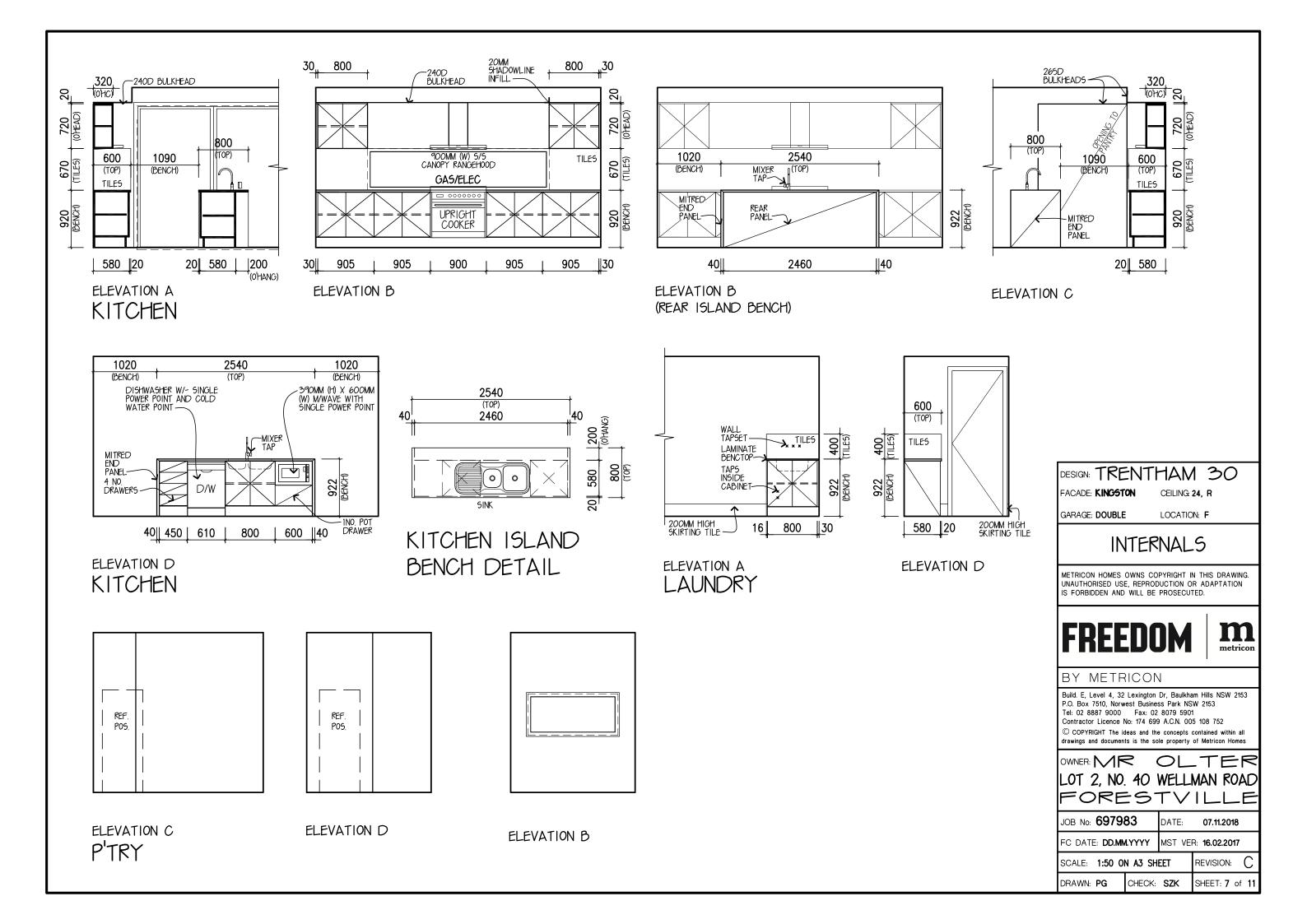
OWNER MR OLTER LOT 2, NO. 40 WELLMAN ROAD FORESTVILLE

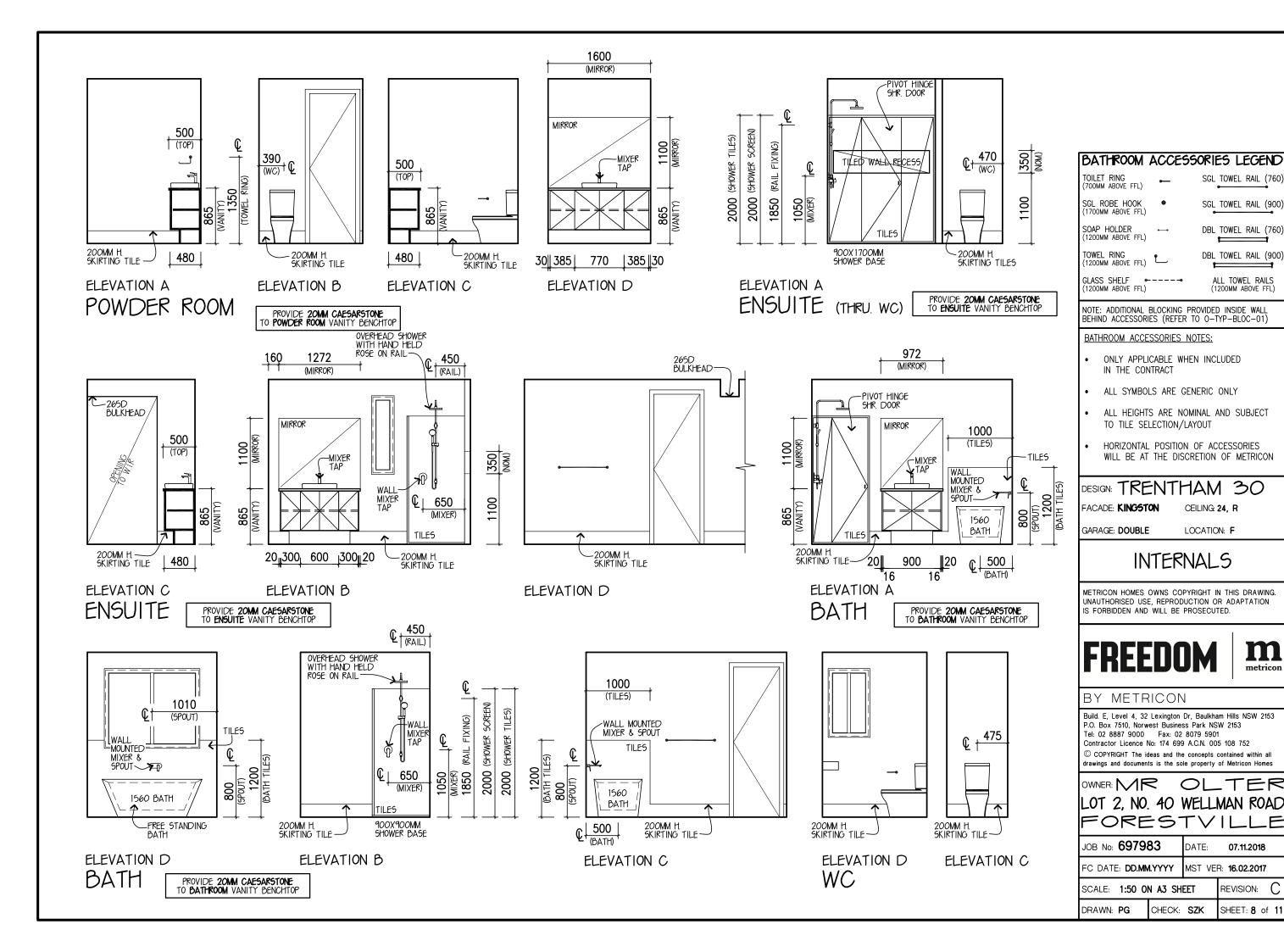
JOB No: **697983**DATE: **07.11.2018**

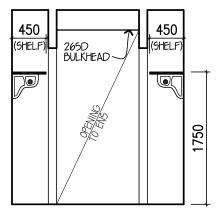
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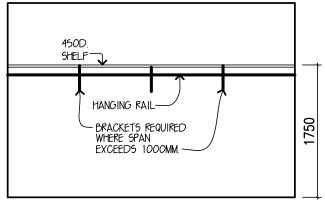
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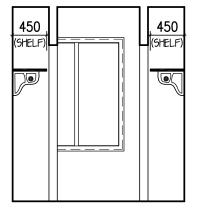
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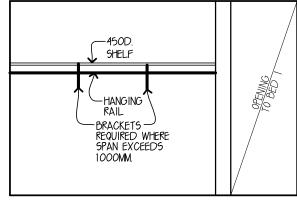












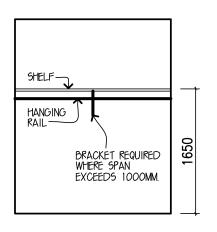
ELEVATION A

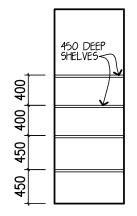
ELEVATION B

ELEVATION C

ELEVATION D

W.I.R.





BED'S 2,3&4 (TYPICAL)

ELEVATION C

ROBE

LINEN

DESIGN: TRENTHAM 30

FACADE: KINGSTON

CEILING: 24, R

GARAGE: DOUBLE

LOCATION: F

INTERNALS

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JOB No: **697983**

DATE: 07.11.2018

FC DATE: **DD.MM.YYYY** MST VER: 16.02.2017

SCALE: 1:50 ON A3 SHEET REVISION: CHECK: SZK

DRAWN: PG

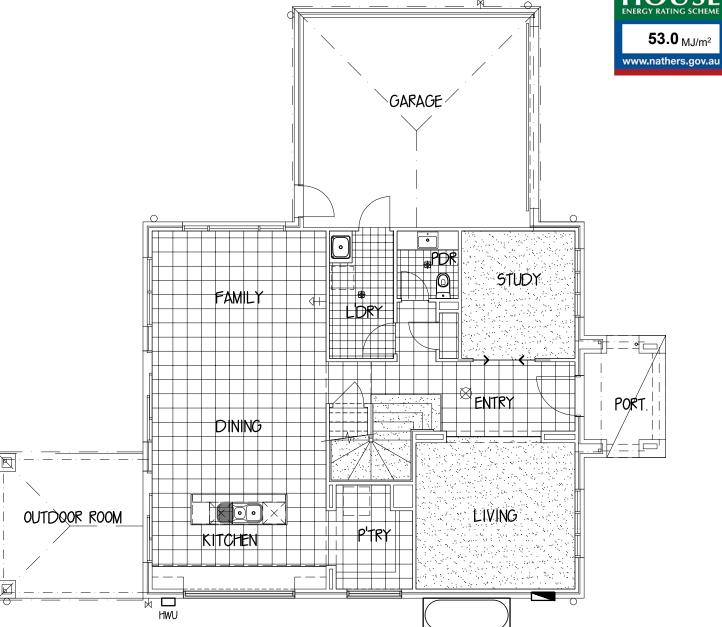
SHEET: 9 of 11



Certificate no.: Assessor Name: Accreditation no .: 5.9 Certificate date: NATIONWIDE HOUSE ENERGY RATING SCHEME Dwelling Address: 40 Wellman Road Forestville, NSW 2087 **53.0** MJ/m² www.nathers.gov.au

0003395720 Fadi Sweis 20390 26 Nov 2018





FLOOR COVERINGS LEGEND



WET AREA FLOOR TILING TOTAL AREA: 7.21 SQM



CARPET FLOOR AREAS TOTAL AREA: 26.87 SQM



TIMBER FLOOR AREAS TOTAL AREA: 0 SQM



TILED FLOOR AREAS TOTAL AREA: 58.35 SQM



EXTERNAL TILED FLOOR AREAS TOTAL AREA: O SQM

DESIGN: TRENTHAM 30

FACADE: KINGSTON CEILING: 24, R

GARAGE: **DOUBLE**

LOCATION: F

GROUND FLOOR

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OWNER: MR OLTER LOT 2, NO. 40 WELLMAN ROAD FORESTVILL

BY METRICON

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JOB No: 697983	DATE:	07.11.2018
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CHECK: SZK

DRAWN: PG

SHEET:10 of 11





Certificate no.:
Assessor Name:
Accreditation no.:
Certificate date:
Dwelling Address:
40 Wellman Road
Forestville, NSW

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Fadi Sweis 20390 26 Nov 2018

0003395720

BATH BED 3 BED 2 \boxtimes LEISURE BED MH · OWC BED 4 ENSUITE WIR

FLOOR COVERINGS LEGEND



WET AREA FLOOR TILING TOTAL AREA: 14.19 SQM



CARPET FLOOR AREAS (EXCL. STAIRS) TOTAL AREA: **80.35 SQM**



TIMBER FLOOR AREAS TOTAL AREA: **0 SQM**



CARPET FLOOR AREAS (STAIRS ONLY) TOTAL AREA: **4.21 SQM**



EXTERNAL TILED FLOOR AREAS TOTAL AREA: **3.88 SQM**

DESIGN: TRENTHAM 30

FACADE: **KINGSTON** CEILING: 24, R

GARAGE: **DOUBLE**

LOCATION: F

FIRST FLOOR FLOOR COVERINGS

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FREEDOM

metricon

DRAWN: PG

OWNER: MR OLTER
LOT 2, NO. 40 WELLMAN ROAD
FORESTVILLE

BY METRICON

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P.O. Box 7510, Norwest Business Park NSW 2153
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JOB No: 697983	DATE:	07.11.2018
FC DATE: DD.MM.YYYY	MST VEF	R: 16.02.2017
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CHECK: SZK

SHEET: 11 of 11