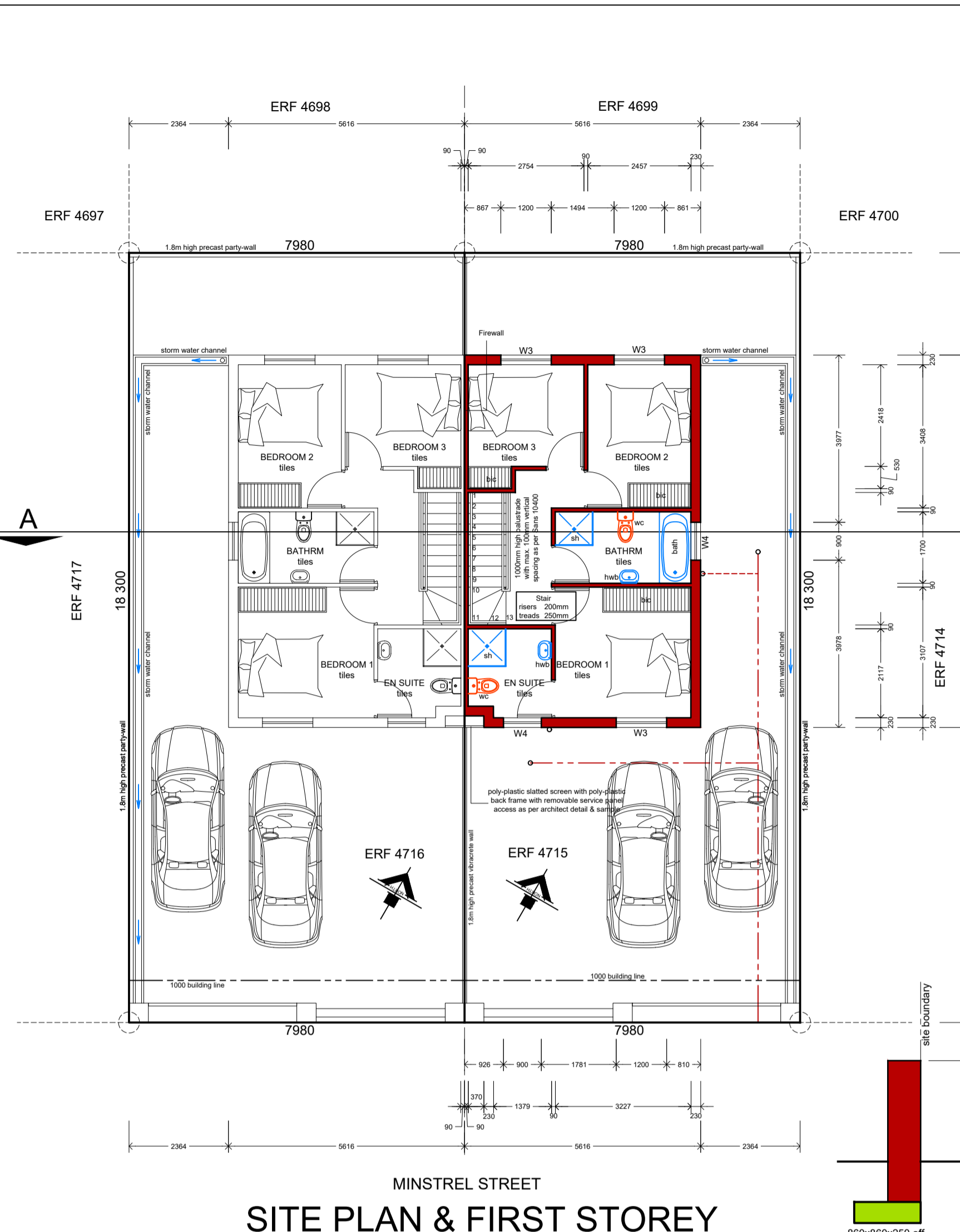
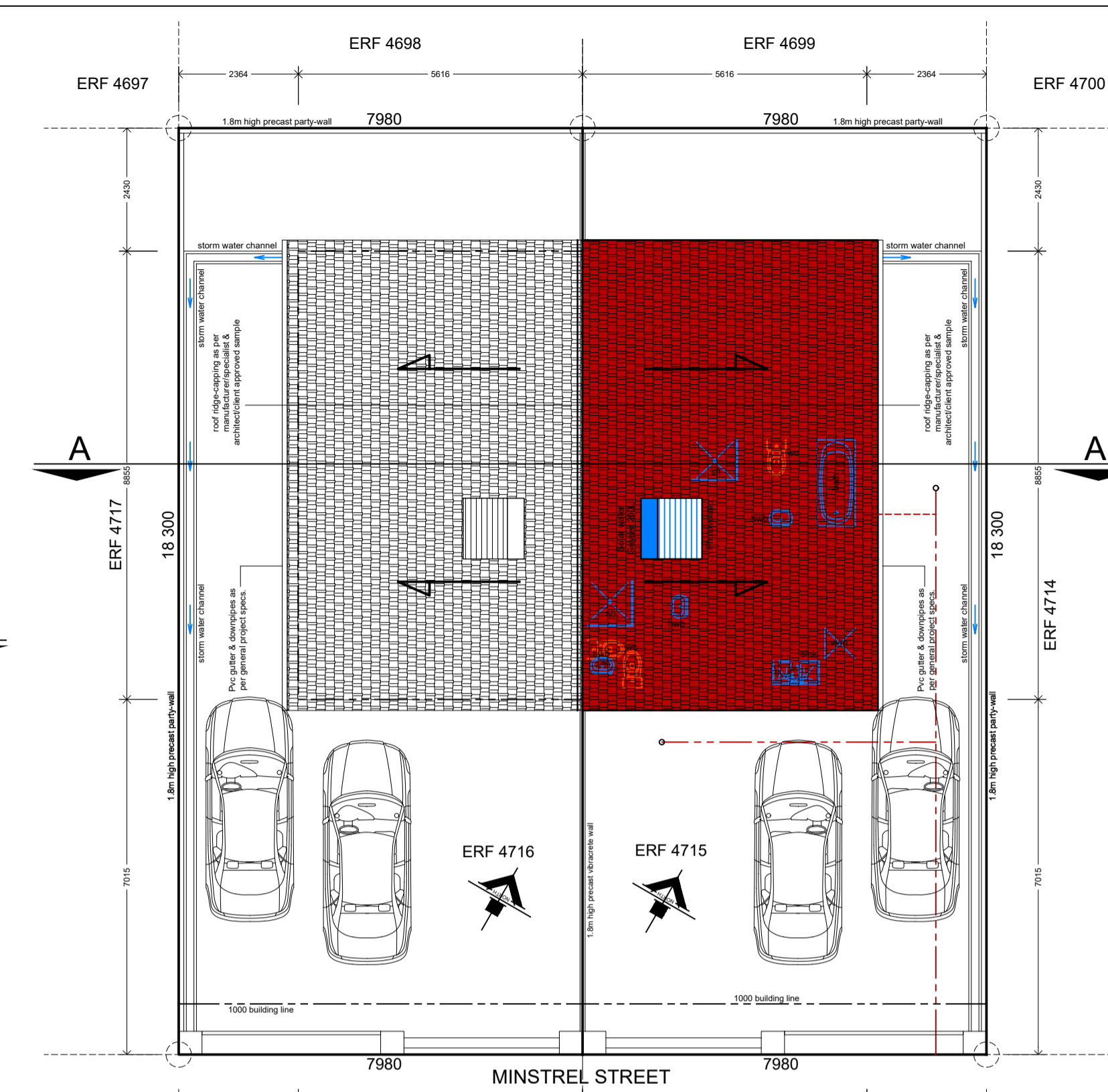


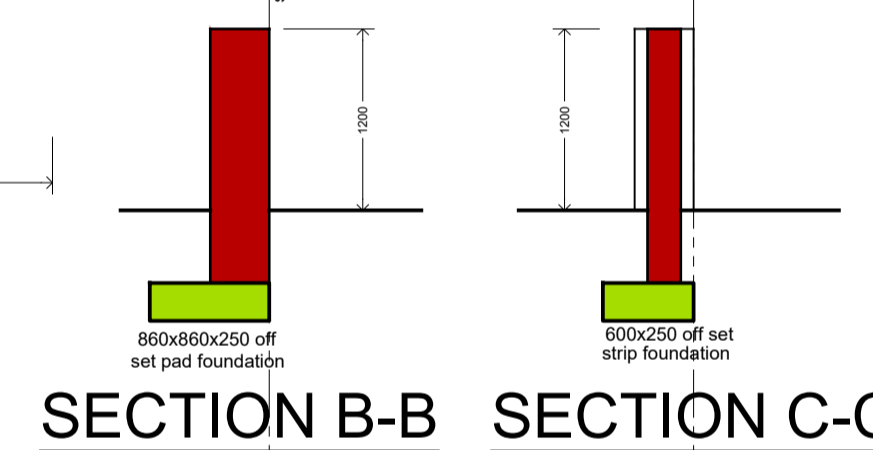
**SITE PLAN & GROUND STOREY**



**SITE PLAN & FIRST STOREY**



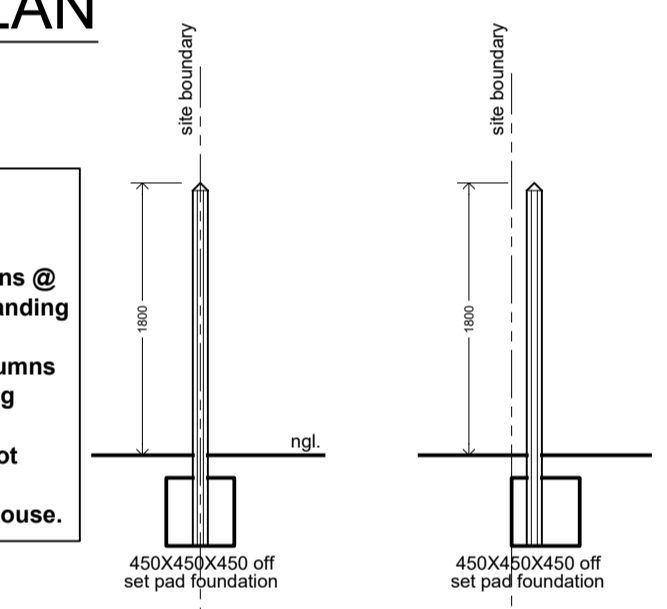
**SITE & ROOF PLAN**



**SECTION B-B SECTION C-C**

**Boundary Wall:**

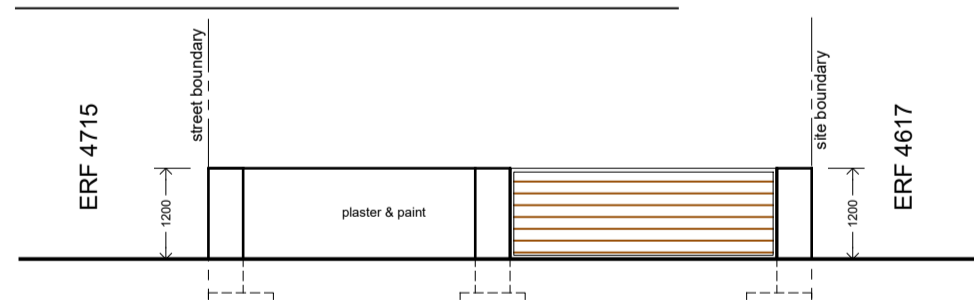
- To be built with Cement blocks.
- To a max. height of 1200mm with 345x345mm columns @ max. 2800mm ccs. as per Sans 10400 Part K. (free standing walls with pier projection on 2 side)
- 220mm thick, 900mm high brickwork in between columns resting on 600x250mm strip foundations not projecting beyond any boundary line as shown.
- Columns resting on 800x800x250 pad foundations not projecting beyond any boundary line as shown.
- Boundary walls to be plastered & painted to match house.



**TYPICAL BOUNDARY WALL SECTIONS**

Roof Specification	Base case hot water calculation	Hot water insulation
Zone 4 upward flow min rec'd	4	Knitshol solar water heating insulation with storage tank rated at 400kpa
Zone 4 upward flow min rec'd	6	Solar collector panel in 1.6m opening
Roof air space upwards flowing	0.40	Q-factor is 13.624 mega joules per sqm
Roof & ceiling construction	0.75	Daily thermal performance in kWh
Reflective insulation	2.50	Annual output (20k)
Flexible mineral rock wool 115 thick	3.63	This output exceeds the required 1984 kWh this system passes.
R-value achieved	3.63	
Piping insulation	1.0	
For pipes < 80mm R value to be	1.5	
For pipes > 80mm R value to be	2.0	
Hot water cylinder insulation R value to be	2.0	
Min 50% hot water supply by solar heating system		

**HOT WATER DEMAND**



**BOUNDARY WALL - STREET ELEVATION**

	W1	W2	W3	W4	SD1
TYPE	A	B	C	D	E
WIN. No.	W1	W2	W3	W4	SD1
GLAZING	safety glazing as Sans 10400 Part N	safety glazing as Sans 10400 Part N	safety glazing as Sans 10400 Part N	safety glazing as Sans 10400 Part N	safety glazing as Sans 10400 Part N
TOTAL GLAZED AREA	1.08sqm	0.29sqm	1.44sqm	0.61sqm	3.15sqm
TOTAL	1-GRND	1-GRND	4-(1-GRND)-FIRST	2-FIRST	1-GRND

**WINDOW SCHEDULE**

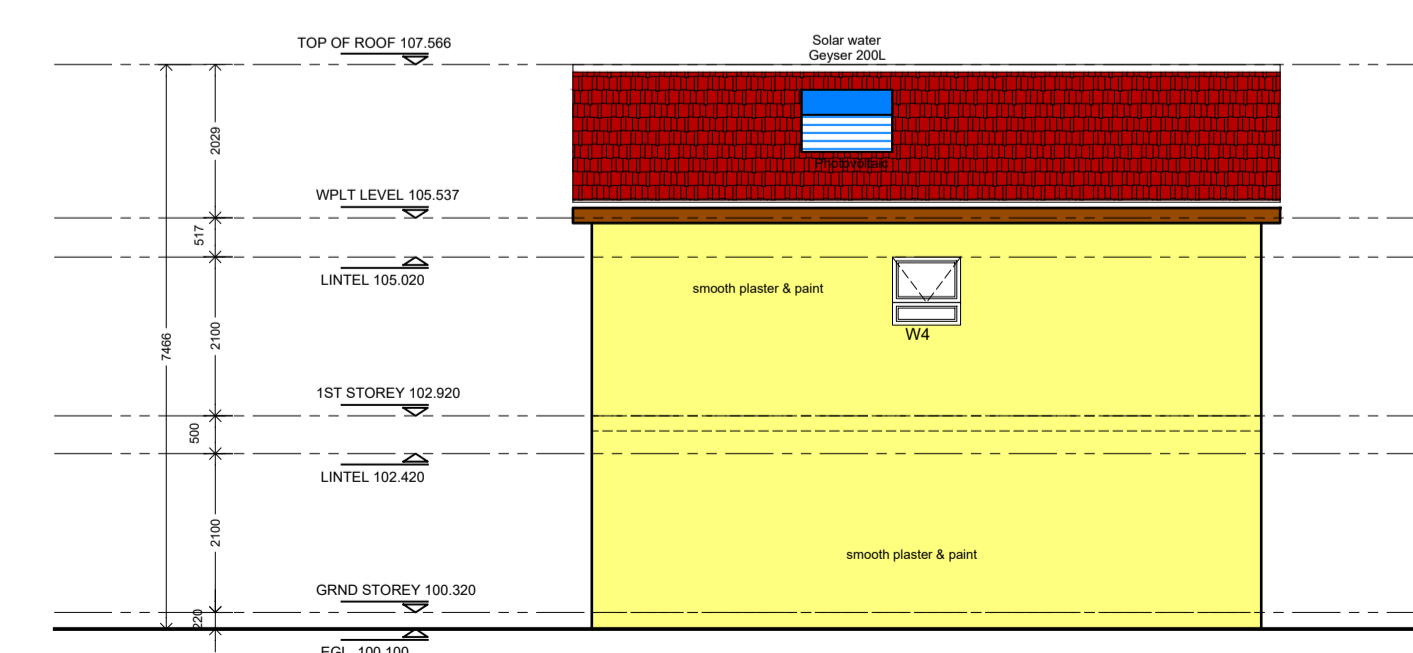
FENESTRATION CALCULATIONS	FENESTRATION CALCULATIONS
GROUND STOREY	FIRST STOREY
NET FL. AREA 42.98sqm	NET FL. AREA 44.30sqm
GLAZ. AREA 5.96sqm	GLAZ. AREA 5.94sqm
FENESTR. % 13.86%	FENESTR. % 13.40%

**FENESTRATION CALCULATIONS**

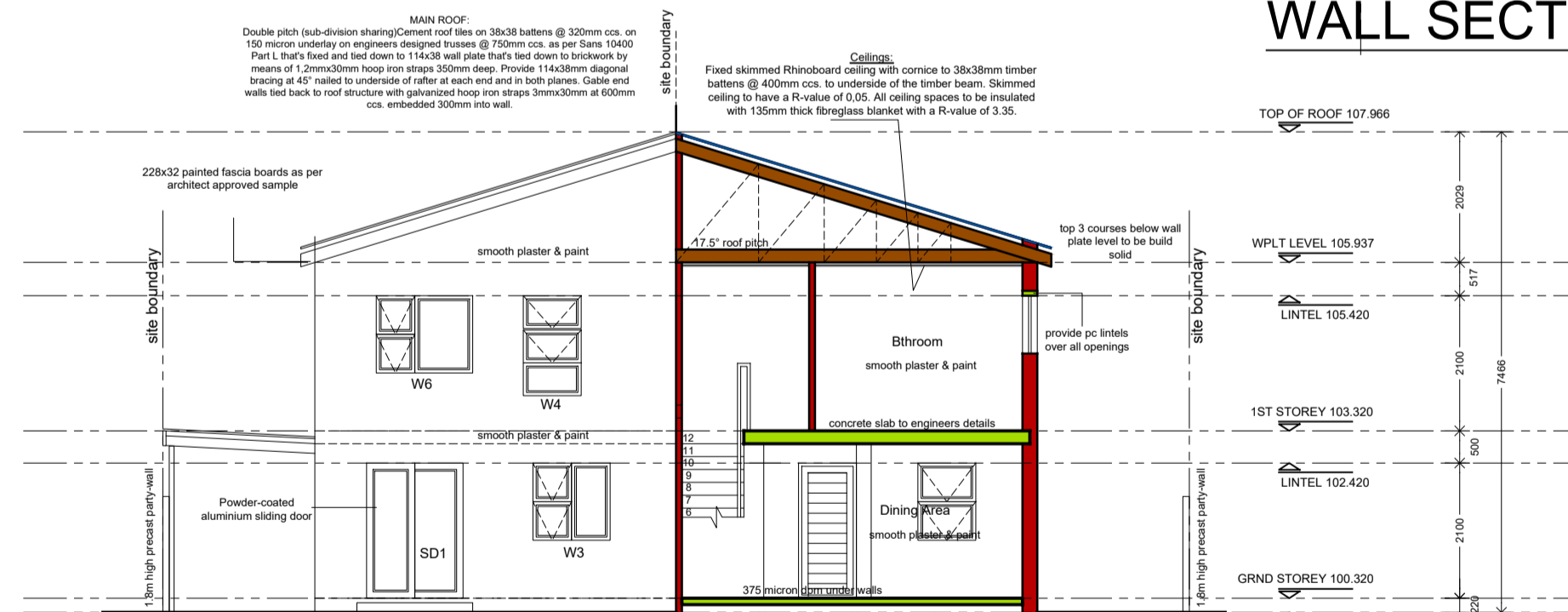
This building does comply to regulation Shading Ratio (P<sub>SH</sub>) = 0.50

NOTE: Fenestration to inner footprint are within 20% this building does comply to regulation Shading Ratio (P<sub>SH</sub>) = 0.50

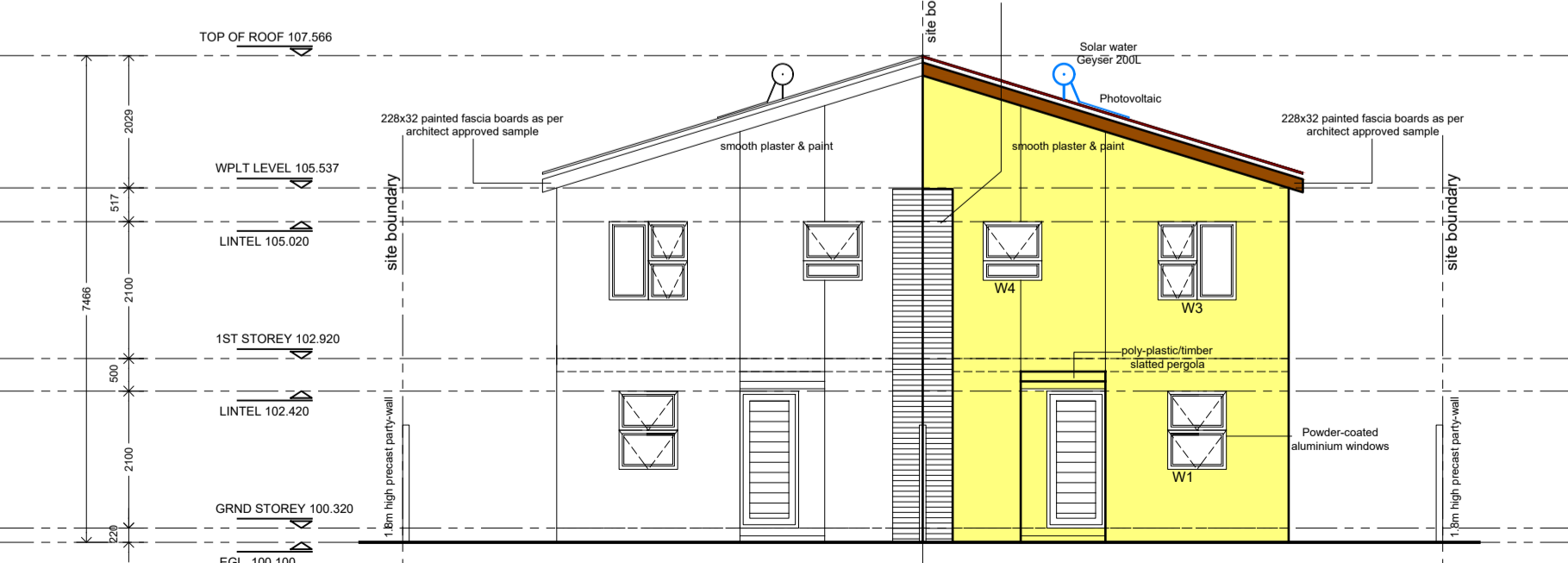
WINDOW SCHEDULE  
Aluminium windows  
Windows to have min 10% light of floor area and min 5% ventilation of floor area  
Windows within 1.8m of bath or shower to be safety glazed



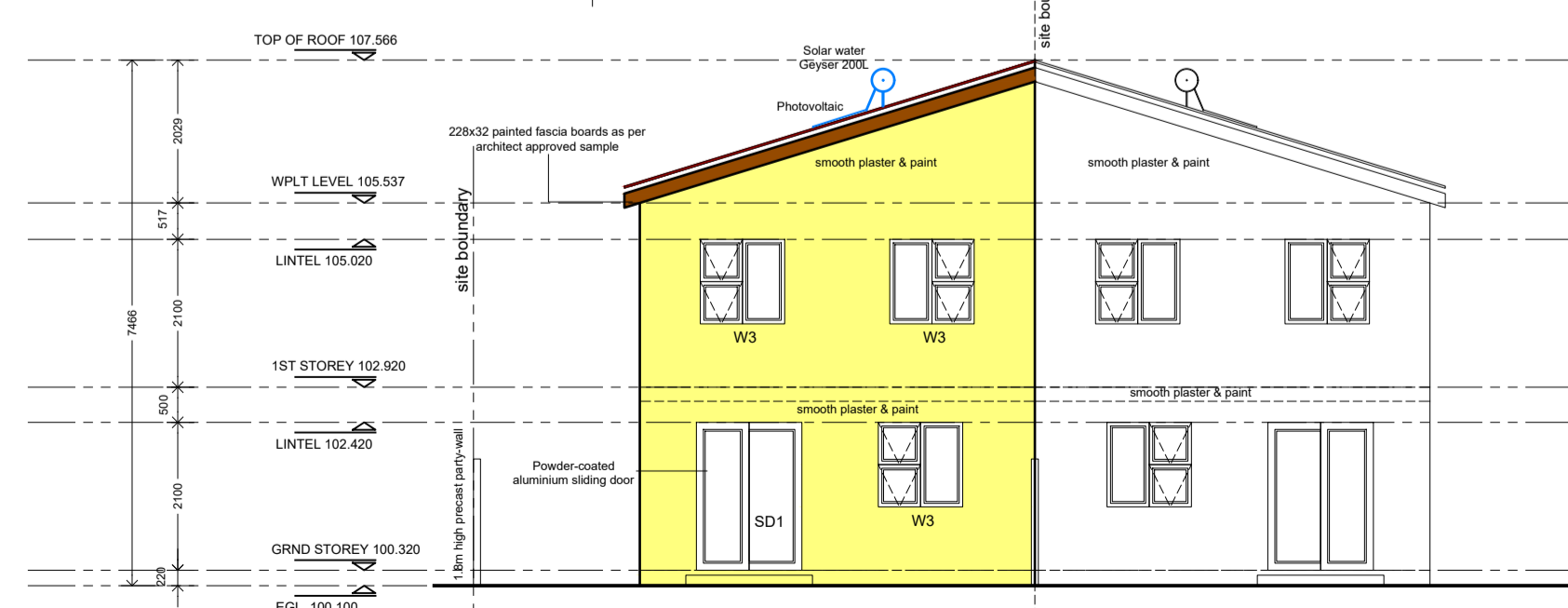
**EAST ELEVATION**



**SECTION A-A**



**SOUTH ELEVATION**



**NORTH ELEVATION**

**SPECIFICATION:**

**BOUNDARY PEGS**  
To be pointed out to Building Inspector before construction commences.

**FOUNDATIONS AND FLOORING**  
250mm external cavity walls to be built on strip foundations, cavity below stepped (per floor) with concrete on 700x250 footings. 30mm screed on 100mm concrete surface bed on DPM on well compacted fill. Finish floor level to be a minimum of 200mm above NGL.  
Provide brick force every 3 courses.

**CEILING**  
Fixed skinned Rhinoboard ceiling with cornice to 38x38mm timber battens @ 400mm ccs. to underside of the timber beam. Skimmed ceiling to have a R-value of 0.05. All ceiling spaces to be insulated with 150mm thick fibreglass blanket with a R-value of 3.35.

**JOINERY AND IRONMONGERY**  
All new windows and doors to be aluminium as on plan.

**GLAZING**  
All glazing to comply with SANS 10137 & SANS 10400 Part N. access doors & sashlights to have safety glass. Obscure glass to bathrooms. Windows to receive 6mm safety glass as per Sans 10400 Part N.

**STORMWATER DISPOSAL**  
Stormwater to front of house to be surface drained to street.

**HOT WATER**  
50% of the hot water requirements must be heated by means other than electrical resistance.

**GLYSER**  
Solar water panels with integrated geyser to be fitted to roof by approved supplier. 200 litre geyser with 400 psi pressure reducing valve. Situated on RC Roof per engineer's design. All installations to be done in accordance with SANS 10252-1 and SANS 10108 and other relevant standards.  
Estimation of consumption - design to allow for 200L hot water per day per person.  
All exposed water pipes to and from the geyser to be insulated with pipe insulation material with R-value:  
Internal diameter of pipe < 80mm : min R-value = 1  
Internal diameter of pipe > 80mm : min R-value = 1.5  
(cold water supply to be insulated a minimum of 1m from inlet)  
Hot water vessels and tanks shall be insulated with a material achieving a minimum R-value of 2

**ROOF & CEILING**  
Climatic zone 4 - Minimum required Total R-value (m<sup>2</sup> KW) = 3.7 (heat flow direction up)  
160mm Isotherm flexible polyester blanket insulation R = 3.48 (or equal approved SANS 10400A compliant) between Reinforced Concrete roof and ceiling. Achievers recommended deemed-to-safely mth thickness (mm) for insulation requirements + roof = 3.89m<sup>2</sup> KW  
200mm Concrete slab: U-value m<sup>2</sup> KW = 3.10 & R-value(m<sup>2</sup>K) = 0.32

**FLOOR AREAS:**

**SITE AREA:** 163.90m<sup>2</sup>

**PRO. GROUND FLOOR:** 48.75m<sup>2</sup>

**PRO. FIRST FLOOR:** 49.72m<sup>2</sup>

**PRO. STOEP:** 00.97m<sup>2</sup>

**TOTAL:** 99.44m<sup>2</sup>

**COVERAGE OF SITE:** 30.33%

OWNER:.....

ARCHITECT:.....

CLIENT

**HAGLEY DEVELOPMENT**

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SACAP REG. NO. PSAT24707820

PROPOSED DWELLING ON ERF 4715

BUILDING PLAN FOR COUNCIL SUBMISSION

DESIGN/DRWN/CHECK AF DATE 24.08.21 SCALE 1:100

HAGLEY/CS/2024/01 Rev 0