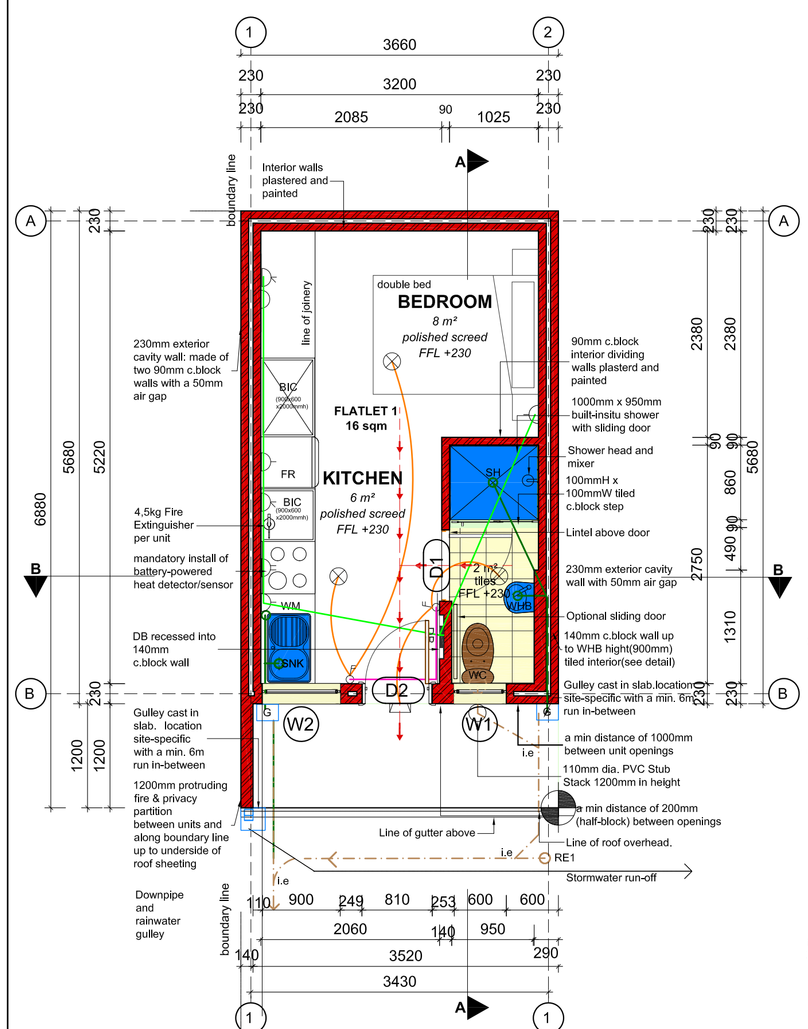
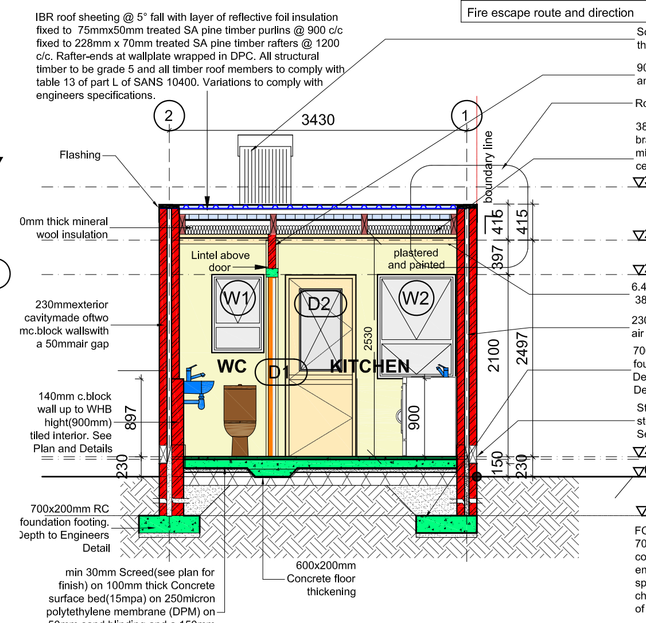


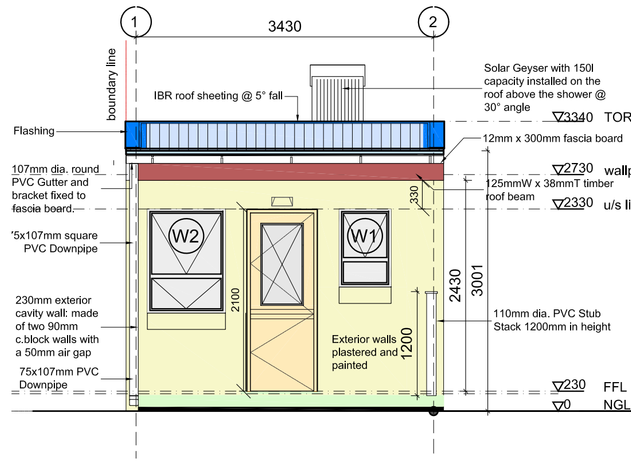
GROUND FLOOR

SCALE 1 : 50



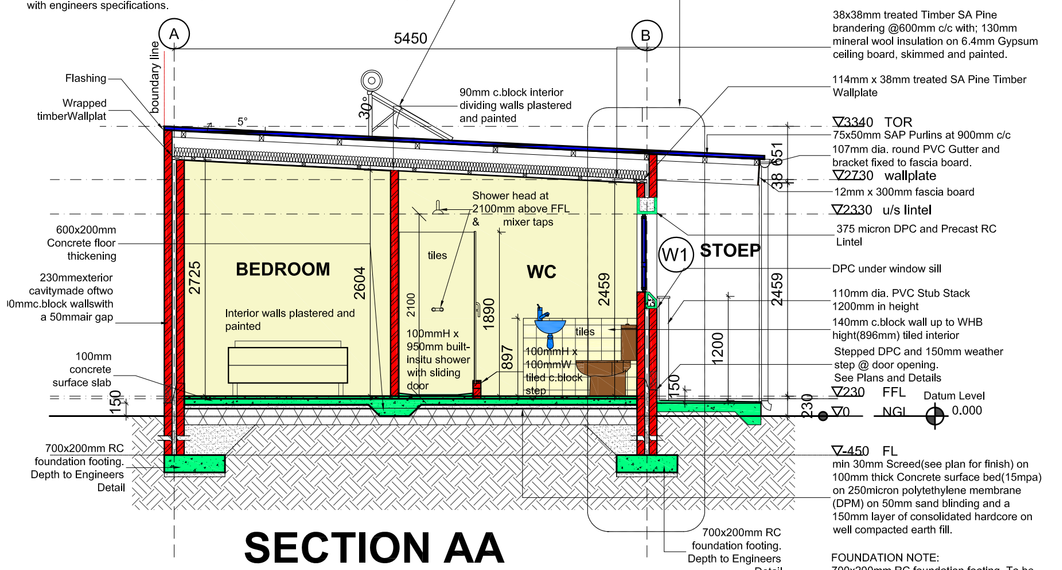
SECTION BB

SCALE 1 : 50



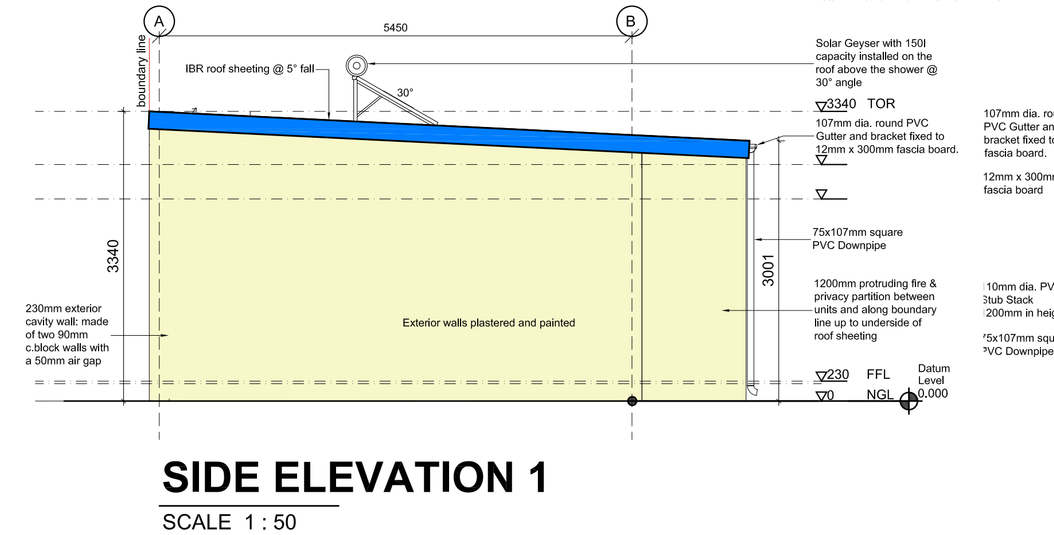
FRONT ELEVATION

SCALE 1 : 50



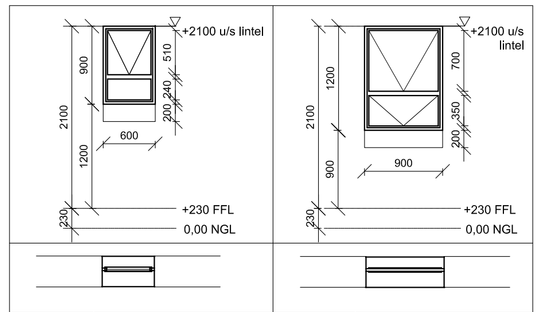
SECTION AA

SCALE 1 : 50



Window Schedule

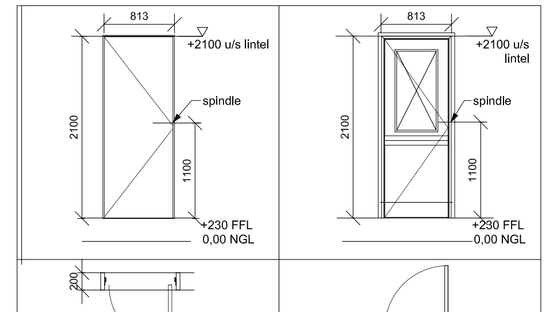
SCALE 1 : 50



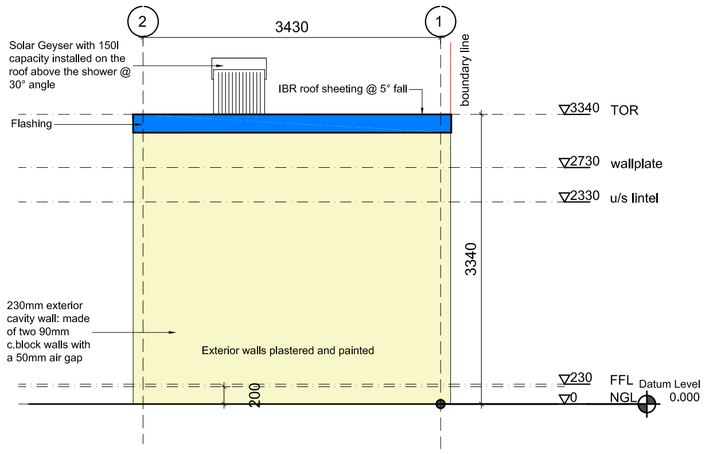
NAME	W1	NAME	W2
FRAME	600mm Wide x 900mm High Aluminium Window Frame	FRAME	900mm Wide x 1200mm High Aluminium Window Frame
GLAZING	4mm frosted annealed glazing as per SANS 10400 part N, U-value of 5,9	GLAZING	4mm single clear annealed glass, U-value of 5,9
HARDWARE	To manufacturer's specification.	HARDWARE	To manufacturer's specification.

Door Schedule

SCALE 1 : 50



NAME	D1 - Internal door	NAME	D2 - external door
QUANTITY	1	QUANTITY	1
CONSTRUCTION	2032mm x 813mm leaf, 40mm thick Masonite faced hollow core door	CONSTRUCTION	2032mm x 813mm leaf, 40mm thick timber solid rebate stable door with fixed glazed panel
HARDWARE	Std, door spindle & 2-lever-lock and 1 pair std. butt hinges	HARDWARE	Door spindle, 3-lever-lock, self-closing mech. a pair of butt hinges, weather seal & Kickplate

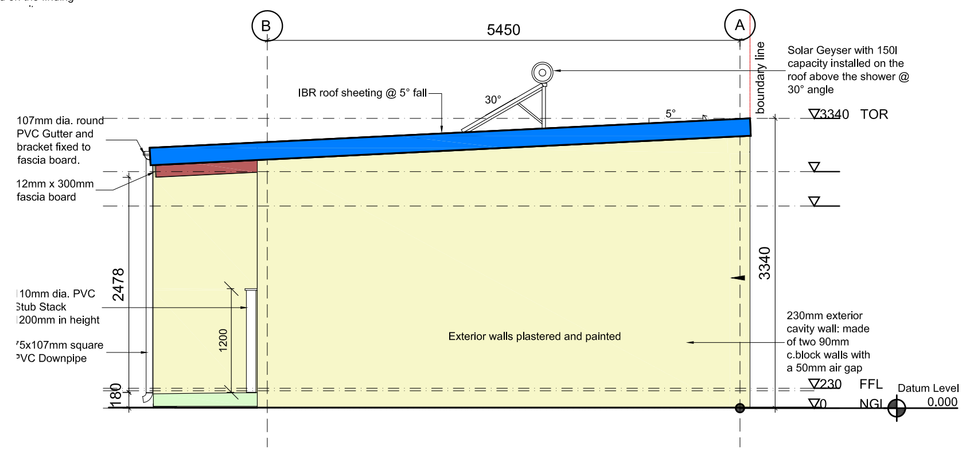


BACK ELEVATION

SCALE 1 : 50

SIDE ELEVATION 1

SCALE 1 : 50



SIDE ELEVATION 2

SCALE 1 : 50

The drawings are copyright and remain the property of Jakupa Architects and Urban Designers Pty Ltd. Copyright is reserved by them and the drawing is issued on the condition that it is not copied, reproduced, retained or disclosed to any unauthorized person, either wholly or in part without the written consent from Jakupa.

All dimensions to be checked on site and on drawings, any discrepancies to be reported to the architect before work is put to hand. Only figured dimensions are to be taken. All levels to be checked on site and on drawings and any discrepancies must be reported to the architect before any work is put to hand. All levels shown are finished floor levels. Soil and founding conditions must be checked and verified by a geotechnical engineer All work must be completed in accordance with SANS 10400 and the current National Building Regulations. All structural work must be checked by a structural engineer and must be read in conjunction with their drawings.

Electrical Fixture Schedule

TYPE	NO.	COMMENTS	KEY
Prepaid water meter and DB	1	1600mm above FFL	DB
Wall outlet	5	300mm above FFL	
Double lever light switch	2	1100mm above FFL	
Single lever light switch	0	1100mm above FFL	
LED light fixture	3	ceiling mounted	
Isolate Outlet for Oven/Stove	1	1100mm above FFL	
Wifi Router Connection	1	300mm above FFL	
Wall mounted outdoor light	1	2150mm above FFL	

Services Legend

TYPE	KEY
Electrical wiring to conduit	
Electrical wiring to light fixture	
Electrical wiring under screed	
110mm Drain and Soil Pipe	
50mm Waste Pipe	
Soil and combined Vents	
Existing Drains and Stormwater	
Fire escape route and direction	

WALLS
9.1 External & Internal walls made of concrete block, with brickforce in every course in foundations walls and every fourth course in superstructure walls.
9.2 DPC min, 150mm above existing ground level
9.3 External walls to be 230mm thick (2 x 90mm skins with 50mm cavity)
9.4 Internal walls to be 90mm thick
9.5 External and Internal walls to be plastered and painted.

RAINWATER DISPOSAL
10.1 Stoep area has a 50mm screed laid to fall 1:70 to patent stormwater outlet.
10.2 Roof slope of 5 degrees to direct water toward front of dwelling with 1200mm roof overhang to allow water discharge away from structure and foundations.
10.3 Excess discharge to be directed into masonry catchpits with covers to 100mm diam. Stormwater pipes running below ground to municipal stormwater system.

ROOF CONSTRUCTION
11.1 Specifics of roof structure to comply with SANS 10400 or to structural engineer's detail.
11.2 Roof construction for Typology A is as follows:
11.2.1 IBR roof sheeting @ 5° fall with layer of reflective foil insulation fixed to 75mmx50mm treated SA pine timber purlins @ 900 c/c fixed to 228mm x 70mm treated SA pine timber rafters @ 1200 c/c. Roof Rafters tied down with 30mm x 1,6mm galvanized steel straps every 1200mm c/c and embedded 600mm deep into blockwork.
11.2.2 38x38mm treated Timber SA Pine battens @600mm c/c with 130mm mineral wool insulation on 6,4mm Gypsum ceiling board, skimmed and painted.
11.2.3 6.4mm gypsum ceiling board fixed to 38mmx38mm timber battens
11.2.4 All timber roof members to comply with table 13 of part L of SANS 10400.
11.3 Roof construction for Typology B as follows:
11.3.1 IBR Roof sheeting @ 5° fall fixed to 228mm x 50mm treated Timber SA Pine purlin-rafters @ 1200 c/s with layer of reflective foil Insulation, Purlin-rafters tied down with 30mm x 1,6mm galvanized steel straps every 1200mm c/c and embedded 600mm deep into blockwork,
11.3.2 80mm Isoboard fixed to 38mmx38mm timber battens @ 600mm c/c.
11.3.3 All timber roof members to comply with table 14 of part L of SANS 10400.
11.4 Dimension limits are reference in SANS 10400, changes will require approval by responsible engineer.
11.5 All structural timber to be graded as 5, timber roof members to comply with table 13,14 or 15 of part L of SANS 10400. Roof to comply as per engineers detail.

WINDOWS AND DOORS
12.1 All glazing to comply with requirements of SANS 10137 & SANS 10400 Part N
12.2 Burglar Bars to be fitted to opening section of windows to manufacturers spec.
12.3 Precast concrete lintels + 4 courses brickwork with brickforce every course over all openings not exceeding 3m
12.4 Windows minimum 10% of floor area for natural light (artificial light should be a min. lux levels as per the SANS codes).
12.5 Natural ventilated spaces – openings to be a min. of 5% of the floor area. (Check SANS codes)
12.6 Smoke ventilations – openings should be a min. of 3% of the floor area. (Check SANS codes)

STAIRCASE
13.1 Overlap of treads(nosings) not less than 25mm.
13.2 Variation of tread and riser sizes to comply with SANS codes, maximum 6mm variance over the full height of the staircase.
13.3 50mm handrail at 1000mm height
13.4 Spacing of balusters maximum 100mm
13.5 Head room not less than 2100AFFL.
13.6 Doors opening onto landings to comply with SANS codes.
13.7 Staircase width and landings to comply.

LIGHTS
14.1 All External light fittings to be waterproofed

WATER BYLAW
15.1 All work to comply with the water bylaw.
15.1.1 Section 51 - Material, installation and maintenance of pipes used to convey water must comply.
15.1.2 Section 52 (d) the storage of a minimum quantity of water, to be used for purposes other than fire-fighting or air-conditioning, is provided in accordance with Table 1 of Schedule 3
15.1.3 Section 55 - The responsibility of the owner to supply and support fire installations and connection to mains.

REINFORCEMENT
5.1 Bending of reinforcement shall be in accordance with the current edition of SANS 282.
5.2 Reinforcement shall be fixed to comply with the tolerances specified in the current edition of SANS 920
5.3 No heat treatment (including but not limited to welding) or cutting of steel is allowed without the written approval of the Engineer, Any site bending of steel reinforcement shall be done using a proper bar re-bending tool, and bars should only be re-bent once,
5.4 The Contractor shall exercise care that no damage to waterproofing materials underneath surface beds is caused during fixing of steel or other operations, The cost to repair or replace waterproofing materials shall be at the Contractor's expense.
5.5 Vertical element (columns and walls) reinforcement to be adjusted and approved in writing by the Engineer after levels to foundations have been confirmed on site.
5.6 All re-entrant corners of openings in slabs and walls shall have two (2) Y12 corner bars of length 1200 mm on both sides of the concrete element, unless specified otherwise on the relevant bending schedule.
5.7 All reinforcement must be inspected and approved by the Engineer in writing before concreting, The Engineer shall be given at least 24 hours advance notification of an inspection. Inspection will only be done if all steel is properly fixed, spacer blocks positioned, shuttering cleaned out and reinforcement checked by the Contractor prior to the Engineer arriving for inspection.
5.8 It is the Contractor's responsibility to maintain reinforcement (including mesh) in the correct position with approved spacers and/or stools during concreting.

MASONRY
6.1 Masonry units shall comply to the current editions of relevant specifications, including but not limited to :
i. SANS 227: ii. SANS 285: iii. SANS 1215
6.2 Brickwork to be built according to the current edition of SANS 10164.
6.3 Minimum brickwork strengths:
i. Load-bearing bricks: 14 MPa: i i. Non load-bearing bricks: 7 MPa.
iii. All mortar for brickwork shall be Class 2 according to SANS 10164
6.4 All brickwork anchors, wall ties and straps shall be hot dip galvanized.
6.5 Butterfly wall ties shall be built into cavity walls at three per square meter (3/m²) (staggered) or similar approved spacing.
6.6 Hoop iron straps shall be built in a minimum of every fourth course (i.e. minimum every 340mm) for a minimum of 700mm, and shot-fixed to steel/RC vertical elements.
6.7 Concrete lintels to be supplied and installed above all openings in brickwork in accordance with supplier's specification.
6.8 Brickforce:
i. Brickwork shall be reinforced with an approved brickforce every fourth course (i.e. minimum every 340mm).
ii. First two brickwork courses above window and door openings, and below window openings to contain brickforce extending 600mm past these openings.
iii. In filled cavity retaining walls, brickforce should be placed every second course.
6.9 V-joints are to be cut through the plaster where brickwork and concrete join.
6.10 Refer Architect's drawings for details of reinforced brick lintels.
6.11 WSCE drawings indicate load-bearing brickwork. Refer Architect's drawings for the full extent of all brickwork.
6.12 Where filled cavities are indicated, any reinforcing steel shall be properly secured.
6.13 All non-load bearing walls and partitions shall be kept 20mm clear of the underside of beams and slabs, unless otherwise specified.

SUSPENDED FLOOR SLAB - RIB AND BLOCK
7.1 All concrete work is to be done in accordance with the current edition of SANS 2001-CC1
7.2 All concrete sizes on drawings are without finishes unless indicated otherwise.
7.3 Unless otherwise specified by a Specialist Consultant or Specialist Contractor and approved by the Engineer in writing:
i. Ribs to bear a minimum of 90mm onto the supporting structure.
ii. Ribs to be propped at a maximum of 1500mm c/c
iii. Props are to remain in place for at least ten (10) days after casting.
iv. No blocks may be taken more than 20mm onto supporting walls.
v. Rib soffits to be cambered at a rate of 6mm per 3m span.
7.4 The Engineer shall be given at least 48 hours advance notice when inspections are due.
7.5 Ribs and topping to be cast simultaneously unless otherwise specified in writing by the Engineer.
7.6 All concrete is to be mechanically vibrated during casting.
7.7 Position of any walls on top of the slab may not be altered without Engineer's written approval.
7.8 Prestressed lintels and minimum four courses of brickwork with brickforce every layer to be placed over openings where reinforced concrete beams have not been specified.
7.9 No in-situ concrete may be poured onto the slab before the layout of the pre-cast units and the reinforcing steel has been inspected and approved in writing by the Engineer.

SURFACE BED
8.1 Minimum 30mm Screed(see plan for finish) on 100mm thick Concrete surface bed(15mpa),
8.2 250micron polytethylene membrane (DPM) on 50mm sand blinding and a 200mm layer of consolidated hardcore on well compacted earth fill,
8.3 Internal tiled floor finish to arch's specification on 50mm screed on reinforced concrete slab to structural engineer's detail.

GENERAL NOTES
1.1 These notes are to be read in conjunction with all related engineering drawings and project specifications. Notes on drawings take preference over General Notes.
1.2 Structural drawings must be read in conjunction with the relevant drawings and documentation from other Consultants and Specialists, including but not limited to architectural, drainage, mechanical, electrical and plumbing drawing. Any discrepancies (including dimensions and levels) shall be brought to the attention of the Engineer immediately prior to casting of concrete.
1.3 All Engineers' and other Consultants' instructions must be recorded in the site instruction (SI) book or confirmed via email.
1.4 The current edition of all relevant SANS specifications for the project, including but not limited to those mentioned in the notes, on the drawings and in the project specifications must be available at all times on site. Any reference to a SANS or other specification is a reference to the latest published edition of that specification.
1.5 The Contractor shall confirm all levels and dimensions on site before erecting formwork and casting concrete. Any discrepancies shall be reported to the Engineer immediately.
1.6 The Contractor may not use alternative products or designs other than those prescribed, unless equivalent and written approved from the Engineer is obtained. Alternative design/drawings are to then be submitted at no extra cost to the Client unless otherwise agreed.
1.7 Care must be exercised to ensure that waterproofing membranes and filters are not damaged during construction. Water proofing by specialist to Architect's approval.
1.8 DO NOT SCALE OFF DRAWINGS. Request required dimensions.
1.9 The works will be inspected from time to time by the Engineer (and other Consultants and Specialists where relevant) to ascertain that the Contractor is carrying out the works in general conformity with the construction documentation. It remains the Contractor's responsibility to ensure that the works are carried out in accordance with the latest relevant construction documentation and good building practices.
1.10 No works to encroach the erf boundary.
1.11 No dispersed water to be a nuisance to neighboring properties

EARTHWORKS
2.1 All earthworks shall be in accordance with SANS 1200D and relevant drawings.
2.2 The Contractor shall confirm the nature and location of any and all existing services which may be affected by construction works.
2.2.1 The Contractor shall ensure proper damage protection of these services during construction works.
2.2.2 The Contractor shall notify and/or arrange with the relevant authorities of any service/supply discontinuance, and undertake all relevant cutting, disconnecting and/or sealing of services and drains as required.
2.3 All dimensions and levels are to be confirmed by the Contractor with Architect's and other relevant drawings prior to any excavations commencing. Any discrepancies shall be brought to the Engineer's attention and resolved prior to excavations commencing.
2.4 The Contractor is responsible for implementing and maintaining a temporary site drainage system to channel water away from the works to ensure the local protection of the structure and surface beds against damage caused by water (including but not limited to Stormwater, and water from neighbouring systems) and transportable solids during construction.
2.4.1 The Contractor's temporary drainage system shall provide the necessary pumps, temporary sumps and drains to ensure that excavations remain free of water at all times.
2.5 The Contractor is responsible for ensuring that the site work is maintained in a safe and stable condition.
2.5.1 Bulk excavation batters are to be provided around the perimeter of the site at one (1) meter from the site boundary and at 1V:2H, unless otherwise indicated on drawings or agreed upon in writing by the Engineer.
2.5.2 The Contractor shall engage with the responsible Engineer for approval on steeper slopes.
2.5.3 Slope stabilisation and erosion protection shall be provided at the Contractors's expense.
2.5.4 The Contractor shall design and install all bracing and/or shoring necessary to retain earth banks, roads, pavements, walls, and footings of adjacent properties and structures, as well as to prevent caving and displacement of adjacent soil and structures.
2.6 All excavations to be inspected and approved in writing by the Engineer.
2.7 Existing levels shown on the drawings are preliminary and based on the geotechnical report. Excavations shall continue until the required soil bearing capacity as per the geotechnical report is found, and shall be confirmed by the Geotechnical Engineer. Any deviation from the footing founding level as noted on the drawings is to be discussed between the Contractor and the Engineer to determine whether the over-excavations are to be filled with mass concrete (15 MPa/19 mm) or whether the reinforcing steel is to be appropriately adjusted.
2.8 Over-excavations are to be filled with mass concrete (15 MPa/19 mm) at the
2.8.1 Over-excavated materials shall not be used for backfill, leveling of uneven areas or filling in of over-excavations and shall be removed from site to a place of legal disposal, unless written approval is obtained from the Engineer.
2.9 Backfill material to be compacted in layers not exceeding 150mm to 98% MOD AASHTO, and approved by Geotechnical Engineer.
2.9.1 Column bases shall be backfilled with approved material in accordance with the project specification.
2.9.2 Sub-soil drains shall be inspected and approved by Engineer/relevant Consultant before being covered with backfill.
2.9.3 Waterproofing (by Specialist Contractor) for retaining walls to be inspected and approved by Engineer /relevant Consultant and/or Architect before being covered over with backfill.

FOUNDATIONS
3.1 Footing levels shown on the drawings are preliminary and shall be confirmed by the Engineer in order to obtain the specified allowable soil bearing pressure.
3.2 No foundations are to be cast on fill. Over-excavations to be filled with mass concrete (15 MPa/19 mm) at the Contractor's expense.
3.3 A 50mm thick blinding layer (15 MPa/19 mm) shall be cast under all foundations of the concrete structure.
3.4 All footings shall be placed concentrically below columns and symmetrically below brickwork unless otherwise indicated.
3.4.1 Footings located along property boundaries to be eccentrically loaded where indicated.
3.5 Final foundation levels shall be confirmed on site and submitted by the Contractor for approval by the Engineer before further work is conducted.
3.6 All strip footings for load bearing walls shall be 200 deep x 700mm wide (excluding 50mm sand blinding) unless otherwise specified.
3.7 Waterproofing (by Specialist Contractor) for retaining walls to be inspected and approved by relevant Consultant and/or Architect before being covered.
3.8 Footings to be confirmed by the appointed responsible engineer as per SANS 10400 or engineers specification - however given site conditions - changes may be required based on the finding of the geotechnical investigation on site.

FIRE
4.1 1 x 4,5kg DCP extinguisher per 200 square meter
4.2 Unit separation walls to extend to underside of the roof covering (no combustibles to pass through or over the unit separation walls which is to be min 60min fire rated)
4,3 Any openings for ventilation purposes in fire walls (boundary or separation) are to be provided with a fire damper.
4,4 1m Flame path travel to be provided
4,5 Safety distances between existing house and new modular units must be provided (depends on size of unprotected openings of the 2 buildings facing each other and may not be applicable)
4,6 Where 2 or more units are serviced by a single stair:
4,6.1 Fire hose reel installation is to be provided
4,6.2 No unprotected (windows/doors) openings permitted within 3m of the external escape stair and/or passage (window not exceeding 0,3 square meters serving a bathroom or toilet need not be protected)

TIMBER
5.1 All timber to comply with SANS 10082

CONCRETE
6.1 All Pc lintels to have min. 4 courses of brickwork with brick force in every course over all openings not more 3.0m. All opening wider than 3m to engineer's specification.

GLAZING
7.1 Glazing to comply with Sans 10400-part N and SANS 10137. Safety glazing required in a bath enclosure or shower cubicle that is glazed, or where glazing occurs immediately above and within a distance of 1 800 mm horizontally or vertically from a bath or shower. All glazing thickness and safety glazing to be in accordance with sans 10400 N. The maximum air leakage for windows and doors shall comply with the requirements of SANS 613. All doors and windows to sealed with foam or rubber or fibrous seals as per sans 10400 part XA.

CLIENT

Add client info here

Add property info here

SIGNATURE:

PROJECT NAME

Prototypical Modular Micro Units

DRAWING NAME	DRAWING STATUS
Type 1A - Single Unit	Council Submission
	ARCHITECT, REG. NO. & SIGNATURE
LOCATION	ENGINEER, REG. NO. & SIGNATURE

DATE		STAGE
26/06/24		4.1
SCALE 1 : 50 @ A1	DRAWN BY LW	CHECKED BY KJ
PROJECT NO. 2310	DRAWING NO. 101	REV NO. 06