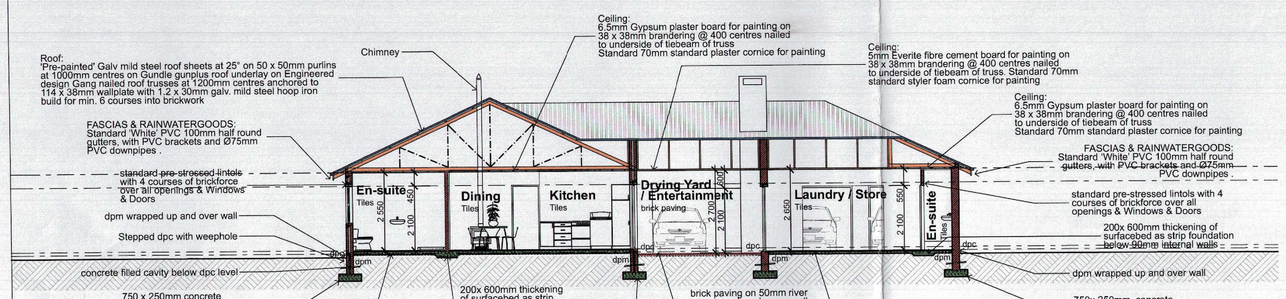
MUNICIPAL SUBMISSION DRAWING:

Project title: **Proposed Dwelling for Ms. Rose Horne @ Skilpadbessie, Hopefield on Erf No. 1823**



Section B - B
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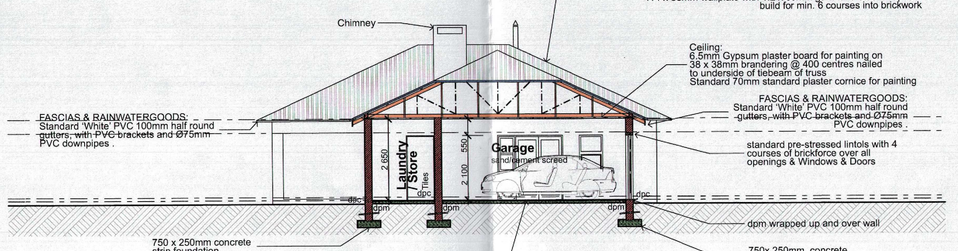

Section A - A
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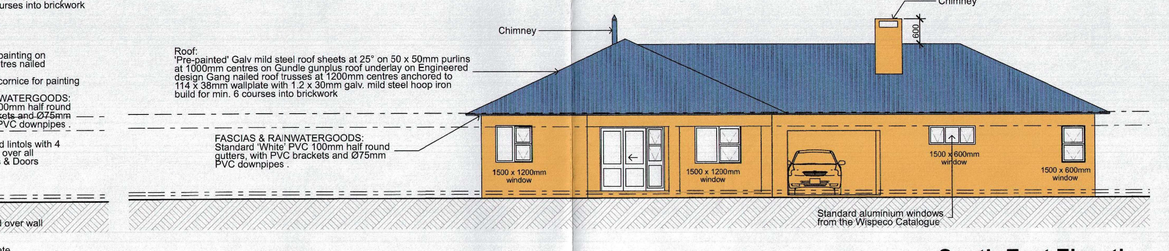
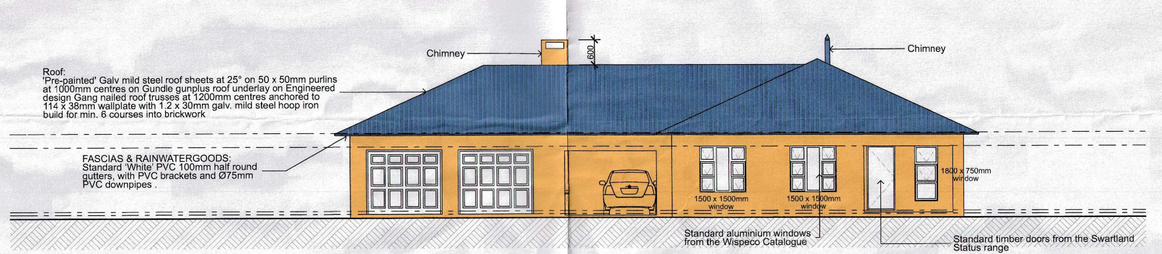
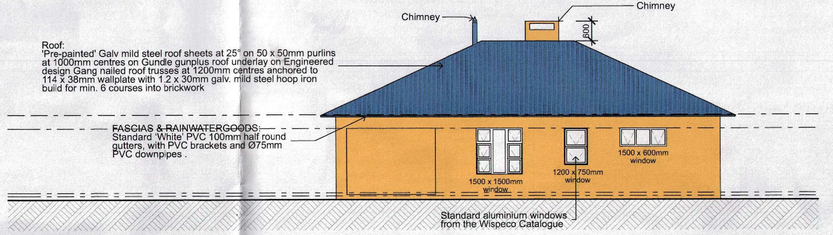


South-East Elevation
Scale 1 : 100



North-West Elevation
Scale 1 : 100



South-West Elevation
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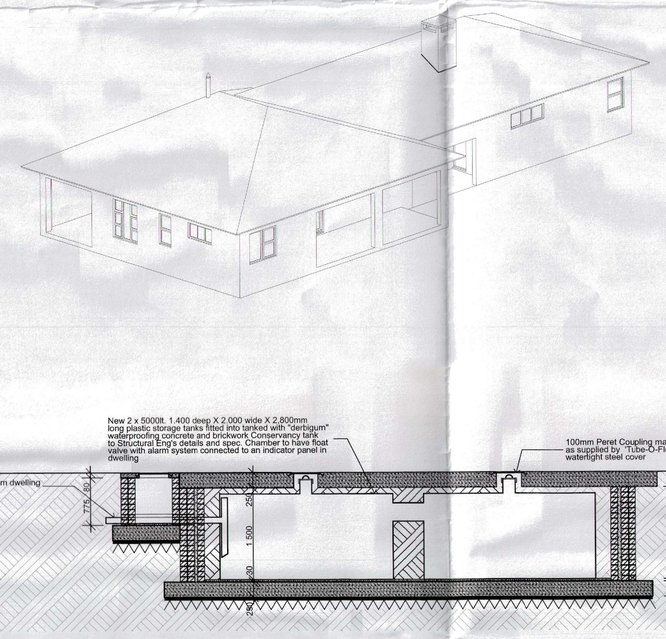
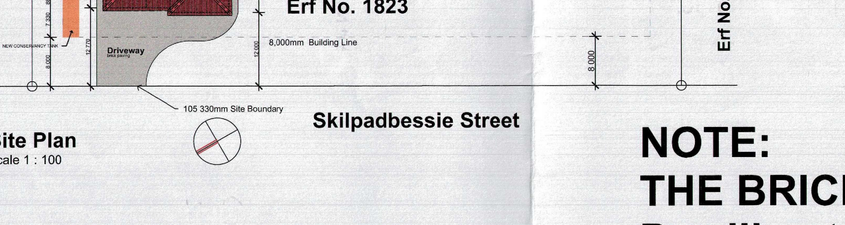
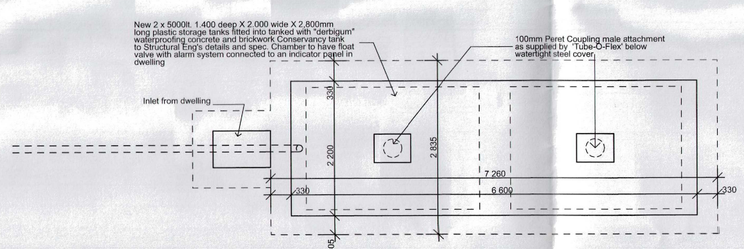


Electrical Plan
Scale 1 : 100

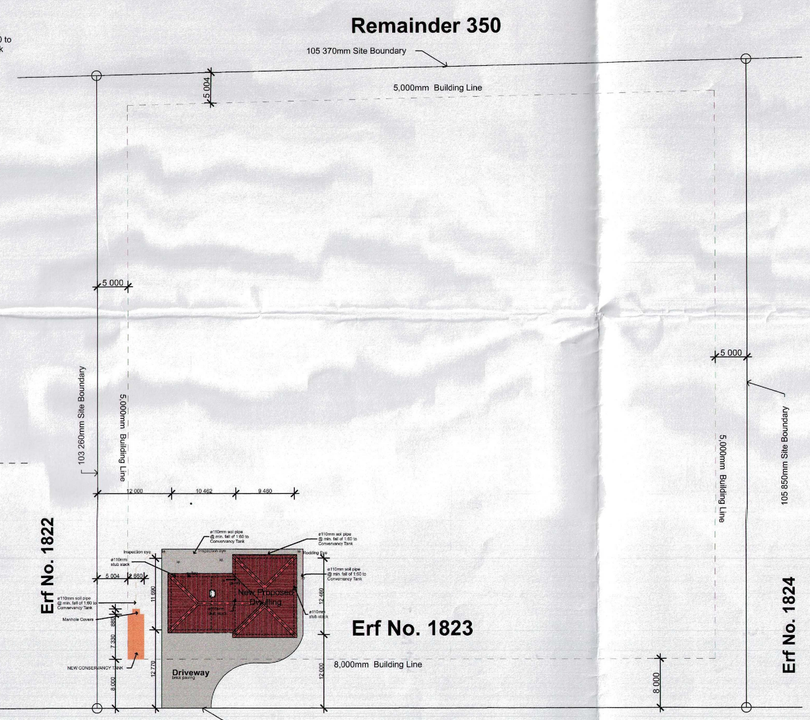
	ELECTRICAL LEGEND
	1500MM FLOURESCENT LIGHT POINT
	EXTERNAL CEILING MOUNTED LIGHT POINT
	INTERNAL CEILING MOUNTED LIGHT POINT
	EXTERNAL WALL MOUNTED LIGHT POINT
	INTERNAL WALL MOUNTED LIGHT POINT
	SINGLE PLUG POINT@ 300mm high above FFL
	DOUBLE PLUG POINT @ 300mm high above FFL
	DOUBLE PLUG POINT @ 1100 high above FFL
	LIGHT SWITCH
	TWO WAY LIGHT SWITCH
	2 COMPARTMENT TELKOM 'YORK BOX' @ 200 high above FFL
	TELEVISION AERIAL POINT
	STOVE POINT
	STOVE ISOLATOR POINT @ 1100 high above FFL
	HOT WATER CYLINDER 150litre
	TELEPHONE POINT
	700mm x 700mm TRAP DOOR
	DISTRIBUTION BOARD
	METER BOARD



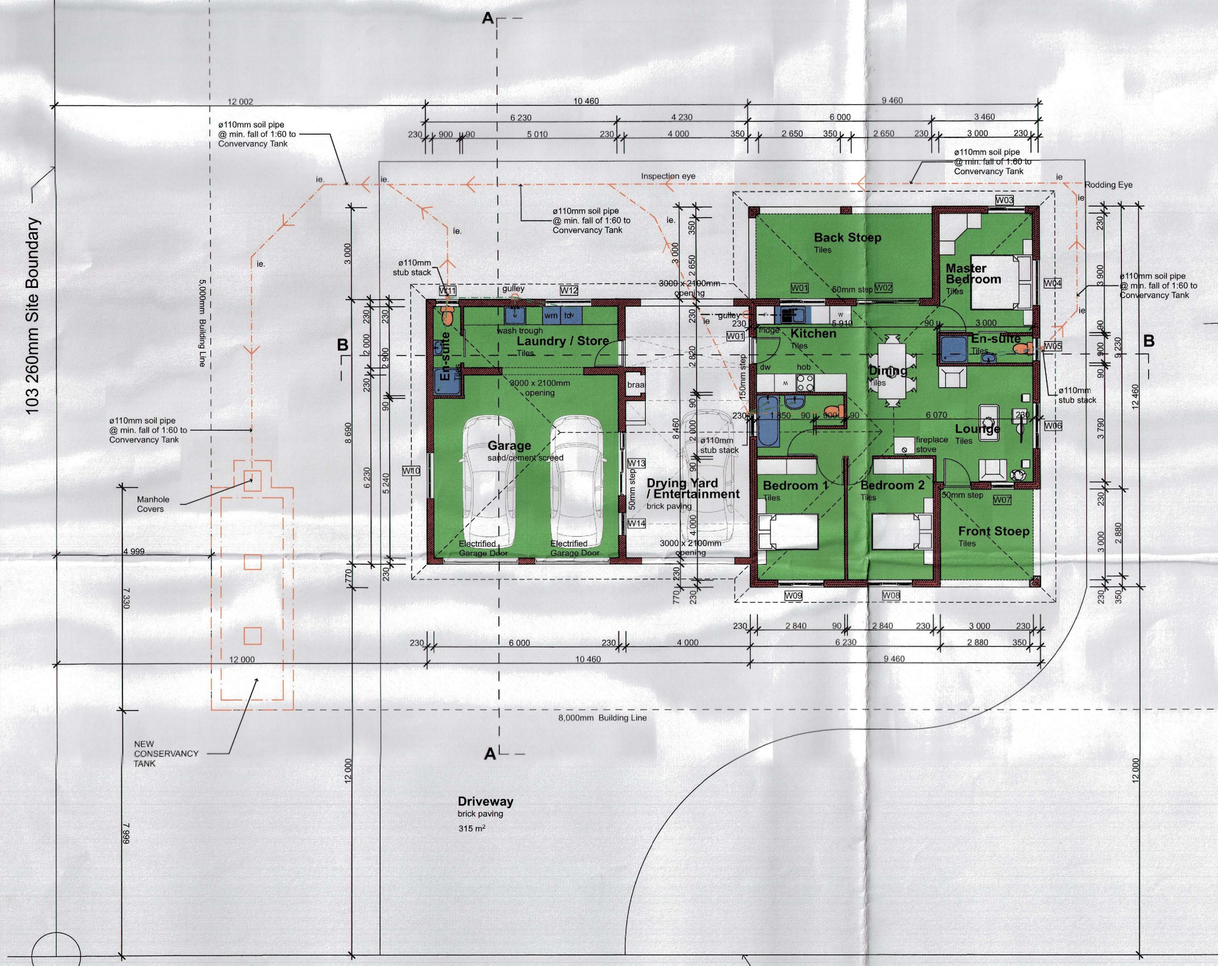
Detail of Concervancy Tank - Section
Scale 1 : 50



Detail of Concervancy Tank - Plan
Scale 1 : 50



Site Plan
Scale 1 : 100



Layout Floor Plan
Scale 1 : 100

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project name: **Ms. Rose Horne**

drawing name: **Site, Ground & First Floor Plan, Elevations and Sections**

Scale : As Shown	Date : March 2018		
Drawn : zach	Rev. 02		
Sheet number : 01	Drawing no.. Rose Horne Erf 1823 Hpfd.	Drwg Size:	A0

General Notes

- The design on this drawing is copyright and remains the property of the Technologist .
- All work to be carried out in strict accordance to National Building Regulations.
- This drawing must not be scaled. Instead figured dimensions to be read.
- Large scale drawings supersede small scale drawings
- The Contractor, Sub-contractor and Supplier's must verify all relative dimensions, levels and details on site before commencing any shop drawings and/or work.
- Final levels, height of plinths, depths of excavation to be determined on site and approved by Technologist.
- Contractor to make good all disturbed surfaces to match existing or as directed by the Client.

SPECIFICATIONS:

FOUNDATIONS: To be constructed in accordance with Part H of SANS 0400 of 2010, 900 wide x 230(Hb)mm & 15mpa concrete strip footing taken down to bearing level min. 250mm below NGL. Shall be laid in a solid and uniform trench on a concrete slump blinding (unless otherwise specified by City Engineer) and to be inspected by Municipal Works inspectors prior to casting of foundations. Foundations to be inspected and approved before commencing wall construction.

FLOORS:
Non-Dwelling: To be constructed in accordance with Part J of SANS 0400 of 2010. Finish as per plan on min. 50mm cement screed on min. 100mm concrete slab on 250 micron DPM, lapped 150mm at joints and brought up around perimeter to meet wall DPC, on well compacted fill in layers not exceeding 150mm.
Grings:
Finish as per Plan on 30mm Grano Screed and on 75mm surfacebed on DPM and compacted fill as above
Entertainment:
220 x 110 x 75mm brick paving on 50mm river sand on DPM and well compacted fill as per above.

DPC: Standard black 250 micron min polythene around all openings in external walls and under all window cills.

ROOF: To be constructed in accordance with Part I anc part XA of SANS 0400 of 2201. Roof R-value to be min 3.7m²·K/W in the soweste direction of heat flow and shall be made up of: 0.03 [Outdoor air film (7 m/s)] + 0.0 (roof material) + 1.92 [75mm thick foil laminate] + 0.11 (unventilated air space) + 2.5 [150mm thick ceiling insulation] + 0.06 (ceiling board) = 4.62m² K/W.
Corrugated steel roof sheets on 75 x 50mm purlins@ 1000mm c/c on Gundle roof underlay on Engineered design gangnail roof trusses @ 1200mm. Trusses anchored to 114 x 38mm wallplate and walls with 1.2 x 30mm galv mild steel hoop iron built minimum 6 courses into brickwork
ROOF INSULATION: Install 75mm thick, non-combustible, lightweight "Factorylite" non-combustible flexible lightweight industrial fibreglass roof insulation with reinforced foil facing on one side up, with thermal resistance of 1.92m² K/W nominal density 12kg/m³, fixed concurrent with the roof sheeting with galvanised steel straining wires at 300mm centres and tied down top and bottom after tensioning with galvanized hoop iron ties with overlaps stapled together, all in accordance with manufacturer's recommendations.
CEILING INSULATION: Install loose/ flexible 100mm thick Aerotile non-combustible lightweight fibreglass reinforced insulation blanket (Class 1 fire index rating), closely fitted with ends butted firmly between tie beams and laid loose on top of brandering between roof timbers, all in accordance with manufacturer's recommendations.
CEILING:
Shall be new 9.4mm "Rhinoboard" gypsum ceiling boards on 38 x 38 SAP brandering secured to rafters, finished with gypsum skim coat and painted, all joints to be taped.
WALLS: To be constructed in accordance with Part K of SANS 0400 of 2010. All bricks used in the construction of the dwelling will be "STUMBLEBLOC"
All external walls to be plastered and painted. All brickwork below ground to be reinforced and concrete filled, with bricks/one every fourth course and above window head level every second course, unless otherwise stated and 2.5 lk wres per square metre. Pre-stressed concrete lintels over all openings up to 3000 wide, with min. 4 courses brickwork above, with bricks/row in each course.
VENTILATION : One air brick to new Rooms with 5% light and 5% openable, windows are all as per plan.
GLAZING: Shall be constructed in accordance with Part N of SANS 0400 of 1990. SABS 0137 and SABS 1263-1. Glazing of windows and doors exceeding 1sqm, or less than 500mm above FFL, shall be 5mm Shatterproof Safety Glass in accordance with SANS 0400 Part N.
STEPS: Shall be constructed in accordance with Part M of SANS 0400 of 2010. Rendered brick-built steps on 200mm 15mpa concrete bas bench on slurry blinding on compacted base. Risers max. 192.8mm, treads min. 250mm. Finish as per plan.
DRAINAGE: To be constructed in accordance with Part P of SANS 0400 of 2010. Waste pipes to be "Marley" closed pipe system installed by a registered plumbing contractor, to be tested and passed prior to covering up. All sewer and vent pipes to be min. 100mm in diameter, to be concealed in the wall plane of the building. Drainage/sewers beneath building or driveways to be adequately protected or encased in 15mpa concrete 150mm all round. Heavy duty covers and frames to manholes and rodding eyes within paved areas. Any sewer pipe not deeper than 350mm under ground level (t. -460mm) to be covered with a concrete slab, wide and along enough to protect the sewer, with min. 100mm soil between pipe and concrete. The radius at the centre line of bend at the foot of the discharge stack shall not be less than 300mm and other bends 600mm.
STORMWATER DISPOSAL: To be constructed in accordance with Part R of SANS 0400 of 2010. New roof gutters shall be replaced with 100mm diameter round white p.v.c. downpipes. Client to provide 1 x No. 500 liter water storage tank. All surface storm water to be led to Municipal stormwater via existing concrete storm water channels.
ELECTRICAL: Standard electrical supply and installation by qualified and registered contractor.
SITE CLEANLINESS: Contractor to provide on site toilet, to remove rubble regularly and keep site clean and litter free at all times.
PUBLIC SAFETY: To be constructed in accordance with Part D of SANS 0400 of 2010.

ENERGY EFFICIENCY:

To be constructed in accordance with the relevant parts of Part X and Part XA of SANS 0400 of 2013 and SANS 204:2011.

EXTERNAL WALLS: Building complies to R-value 0.35 (cavity brickwork for new additions)
FENESTRATION: The Glazing in the entire house is less than 15% of net floor area, thus complying with SANS204 fenestration requirements.
Layout Floor: 119m² 15% of 203m² = 21.3m² Glazing = 12.50m²
WATER HEATING: A minimum of 50 % by volume of the annual average hot water heating requirement shall be provided by means other than electrical resistance heating as per SANS 204 requirements.
Install new Kwikot "Kwikpak" direct pump-circulator close-coupled solar water heating system with 2000 x 1000 x 80mm high flat solar panel collector (code: SOL-PANEL-2) mounted on an adjustable frame system to include 150 Litre SOL-150-DR round solar water heater complying with SANS 1307:2007, overall size 530mm diameter x 1070mm long with 22mm copper pipe and operating at 400kPa with 400kPa Kwikot Multi pressure control and expansion relief valve (Code: KVK2.2-24), electrical circulating pump, auto vent valve, differential thermostat, 20mm draincock and 22mm insulated pipe work including two Kwikot vacuum breakers (Code: KHNA 200CX) installed on hot and cold water supply. All in accordance with SANS 10254:2004 and SANS 10106:2006, connected to single phase electrical power supply with isolator 1m away from connection on geyser. Geyser to be installed in strict accordance with manufacturer's instructions and 'recommendations and to be installed by manufacturer approved installer.
HOT WATER PIPING: All hotwater piping shall be insulated with an R value of 1.
ORIENTATION:
The Bedrooms is orientated towards the North West & South-East face getting afternoon and late afternoon sun, while the Bathrooms is proposed to have a smaller window to screen unwanted western sun and prevent heat loss. Although the orientation of the Bedrooms is not optimal, it will be used mostly at night. The roof overhang [600mm] over the Master Bedroom & Bedroom 1 & 2 as per the plan provides some midafternoon relieave from the harse Western and Northern Sun which also make the building comfortant
PHI (Y2 / 2648) = 0.27. Solar Exposure Factor = 0.8 for NW orientation sector, Climatic Zone 4
ENERGY DEMAND: 208/m² ftr occupancy HA]: Assumed population of 4 people per house. Nett Floor Area = 209m2
Sum of the Watts of the lamps to all the light fittings : 18 lamps of 60 Watts each = 960W (equal to 5.60W/). 2/m/ek the sum of the Watts value of the lamps by the Nett Floor Area 5.60W / 209m2 = 21,778m². Complies as it less than the maximum energy demand and energy consumption for lighting for occupancy HA.
ENERGY CONSUMPTION (50/kWh/m²/for occupancy HA):
The max. annual energy demand and energy consumption for the building relative to its nett floor area: 5 kWh m² x 209m²= 1030kWh.a (Max.).
The Bedrooms and Bathrooms, use shall be intermiant limited to summer months, assume the line the lights are on from 17h00-22h30 on each day for max. 7 months of the year: 7 months x 3C days x 5 hours = 1050h.a (lighting hours).
9.80kW x 1050h.a = 10080kWh.a (complies as it is under the max. annual energy demand and energy consumption for the building relative to its nett floor area)..

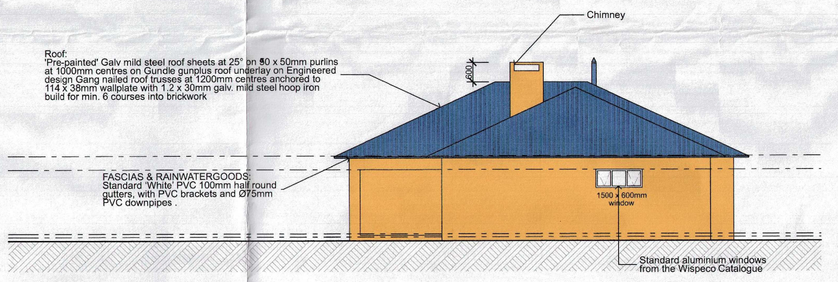
Drainage Notes

All waste fittings to have resealable traps.
Drainage under floor to be protected according PP 24.5 A and B of NBR.
Drain with less than 300mm cover to be adequately protected.
Drain length not to exceed 25m without rodding eye.
Drainage to be min. 1:60.
Min. depth o/ top of run to be 450mm below FGL

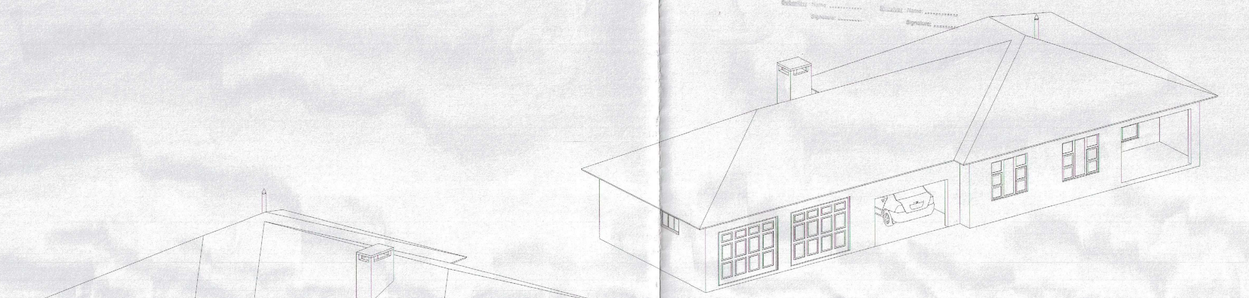
COVERAGE CALCULATIONS:

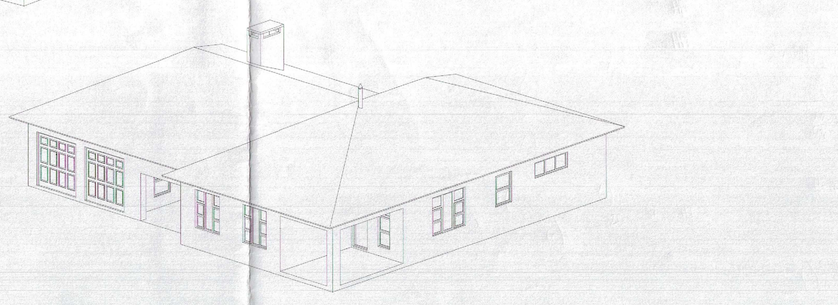
SITE	1.1ha
Proposed Dwelling (incl Stoeps)	118m²
Proposed Entertainment	35m²
Proposed Garage	56m²

NEW COVERAGE 209m² 19%



South-East Elevation
Scale 1 : 100





NOTE:
THE BRICKS USED TO CONSTRUCT THE DWELLING WILL BE "STUMBLEBLOC"
Dwelling to be plastered painted "white"