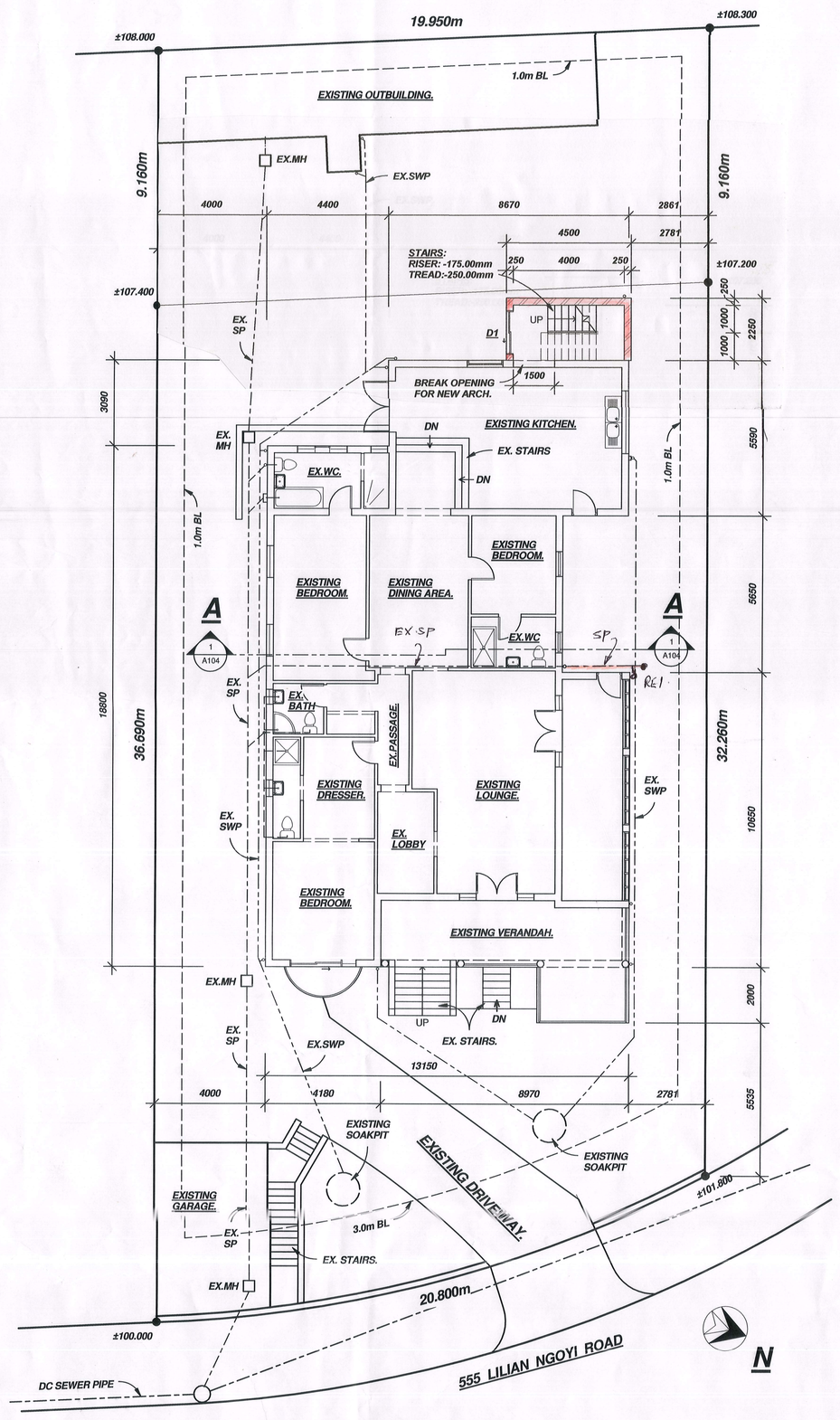
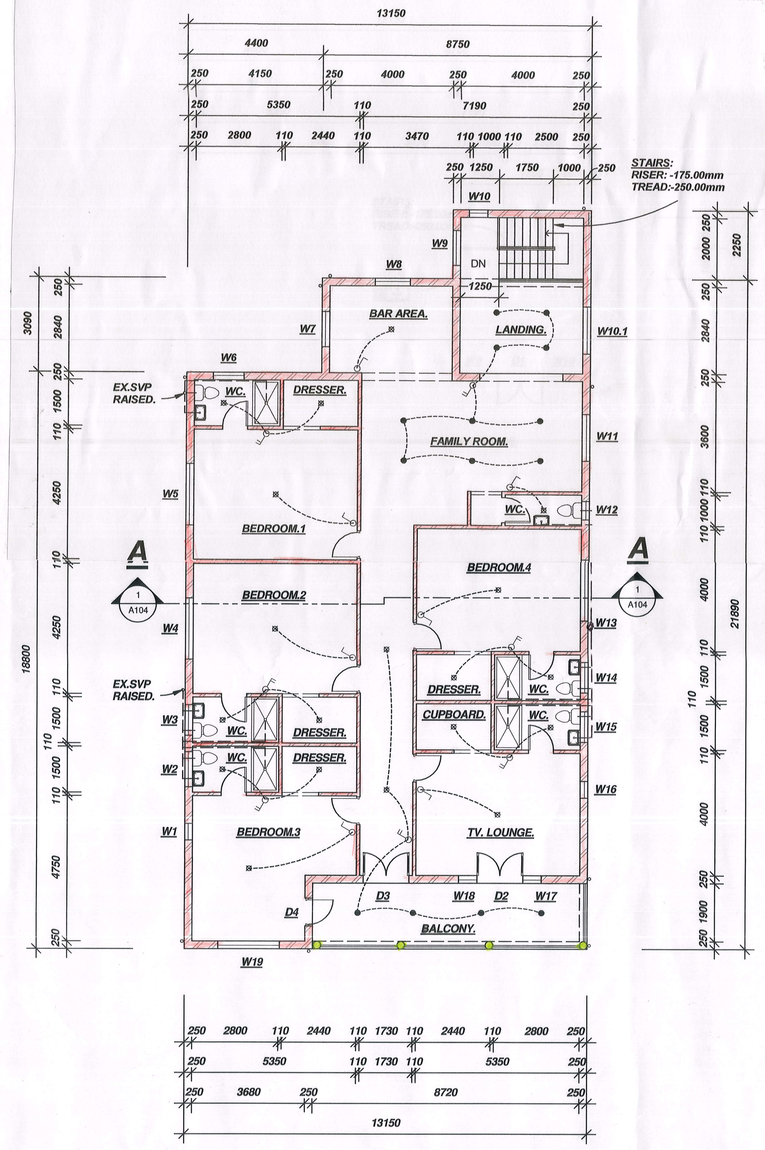
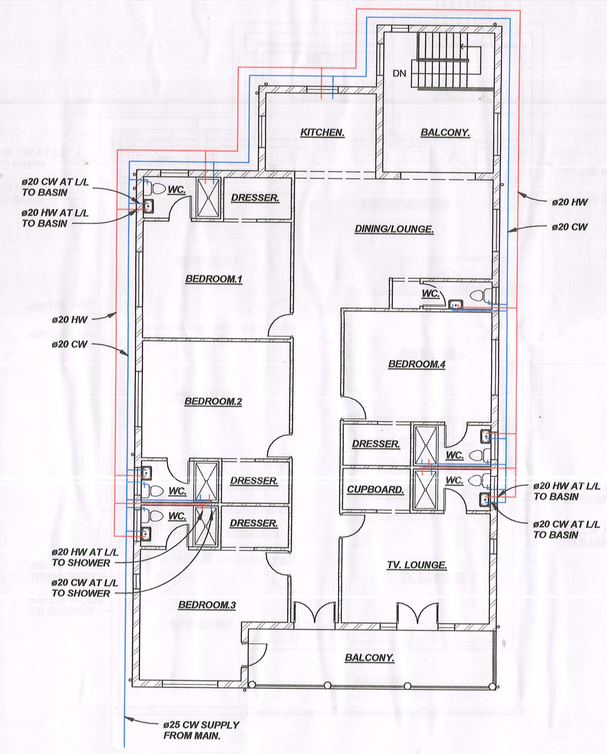


1 GROUND STOREY & SITE PLAN.
1 : 100



2 FIRST STOREY PLAN.
1 : 100



3 WATER LAYOUT.
1 : 100

4 WINDOW SCHEDULE.
1 : 100

GROUND STOREY.

	SIZE OF GLASS:	m²:	TYPE OF GLASS:	THICKNESS:
D1	1800 x 2110mm	3.79m²	TOUGHENED SAFETY GLASS	5 mm

FIRST STOREY.

	SIZE OF GLASS:	m²:	TYPE OF GLASS:	THICKNESS:
W1	600 x 1200mm	0.72m²	MONOLITHIC ANNEALED GLASS	4 mm
W2	1000 x 500mm	0.50m²	TOUGHENED SAFETY GLASS	4 mm
W3	1000 x 500mm	0.50m²	TOUGHENED SAFETY GLASS	4 mm
W4	2000 x 1200mm	2.40m²	MONOLITHIC ANNEALED GLASS	4 mm
W5	2000 x 1200mm	2.40m²	MONOLITHIC ANNEALED GLASS	4 mm
W6	1000 x 500mm	0.50m²	TOUGHENED SAFETY GLASS	4 mm
W7	1200 x 900mm	1.08m²	MONOLITHIC ANNEALED GLASS	4 mm
W8	1200 x 900mm	1.08m²	MONOLITHIC ANNEALED GLASS	4 mm
W9	1200 x 1500mm	1.80m²	MONOLITHIC ANNEALED GLASS	4 mm
W10	600 x 1500mm	0.90m²	TOUGHENED SAFETY GLASS	5 mm
W10.1	1500 x 1200mm	1.80m²	MONOLITHIC ANNEALED GLASS	4 mm
W11	1500 x 1200mm	1.80m²	MONOLITHIC ANNEALED GLASS	4 mm
W12	600 x 600mm	0.36m²	TOUGHENED SAFETY GLASS	4 mm
W13	2000 x 1200mm	2.40m²	MONOLITHIC ANNEALED GLASS	4 mm
W14	1000 x 500mm	0.50m²	TOUGHENED SAFETY GLASS	4 mm
W15	1000 x 500mm	0.50m²	TOUGHENED SAFETY GLASS	4 mm
W16	600 x 1200mm	0.72m²	MONOLITHIC ANNEALED GLASS	4 mm
W17	600 x 1500mm	0.90m²	MONOLITHIC ANNEALED GLASS	4 mm
D2	1500 x 2110mm	3.16m²	TOUGHENED SAFETY GLASS	5 mm
W18	600 x 1500mm	0.90m²	MONOLITHIC ANNEALED GLASS	4 mm
D3	1500 x 2110mm	3.16m²	TOUGHENED SAFETY GLASS	5 mm
D4	900 x 2110mm	1.89m²	TOUGHENED SAFETY GLASS	4 mm
W19	2000 x 1200mm	2.40m²	MONOLITHIC ANNEALED GLASS	4 mm

5 WATER NOTES.
1 : 100

Geyser Details

1 Bedroom Occupancy Population = 2 persons
Hot Water Demand (mass) = 140ltr/person/day = 2 x 140ltrs = 280ltrs
(SANS 10252: Part 1: Table 5, Page 38)
Geyser Volume = 50ltrs per person = 2 x 50ltrs = 100ltrs
(SANS 10252: Part 1: Table 5, Page 38)

Energy Demand = 5watts/m² (SANS 204 – Table 12, Page 24)
Energy Consumption = 5k/watts/hour/m² (SANS 204 – Table 12, Page 24)
Specific Heat of Water (AHW) = 4.186 kj/kg Celcius
Ambient Water Temperature = t1 = 22°C (average)
Geyser Set Point Temperature = t2 = 55°C
Delta (Temperature Change) = t2 – t1 = 55°C - 22°C = 33°C
Heat Required = MASS x SHW x DELTA = 560ltrs x 4.186kj/kgC x 33°C = 77Kj
Hot Water Heated by Geyser = 50% = 280ltrs @ 38K)
Hot Water Heated by Heat Pump = 50% = 280ltrs @ 38K)
• Calc. 280ltrs = 38 joules, therefore 200ltrs =
• 38/280ltrs x 200ltrs = 27.1Kj
Geyser Capacity = 200ltrs @ 27.1Kj (33°C DELTA)

Probable Water Flow Demand

Qp= $\Sigma Q n$
Qp = Probable Water Flow Demand (L/min)
ΣQ = The Arithmethic Sum of the Design Flow Rate of each individual fitting (SANS 10252 - Part 1: Table 4, Page 37)
n = A Factor for Simultaneous Use of all fittings (SANS 10252 – Part 1: Table 4, Page 37)

WHB = 10ltrs/min
TUB = 15ltrs/min
WC = 5ltrs/min
SHR = 15ltrs/min
SINK = 12ltrs/min
TAPS =15ltrs/min
Total Design Flow Rate (ΣQ) = 144ltrs
n = 0.7
Probable Water Flow Demand = $144^{0.7}$ = 32ltrs/min

NOTE:

1. ALL FOUNDATIONS TO ENGINEERS DETAIL.
2. EXISTING FOUNDATIONS TO BE UNDER PINNED TO ENGINEERS DETAIL.
3. ROOF TO ENGINEERS DETAIL.
4. ALL GLAZING TO SHOWERS TO BE TOUGHENED SAFETY GLASS.

STORMWATER:

EXISTING NO ADDITIONAL AREA.

Notes

Roof
- Roof pitch to be set at 25°
- Trusses to be set at 760mm centers.
- Maximum principle framed trusses to comply all round.
- Class B trusses to be used.
- Rafter: 38x114,timber grade 6.-Tie beam: 38x114,timber grade 6
- Struts: 38x114,timber grade 6.-Wall plate: 38x114,timber grade 4
- Conc. Roof tiles (Double Roman) to be fitted.
- UT 250um plastic membrane underlay on 38x38 battens.
- Trusses (by specialist)
- Gutters and down pipes to be 80ø Everite type.
- Concrete slab to engineers detail.

Walls
- All walls to comply with SANS 10400-2010, Part K
- Cement or Coro Bricks to be used with plaster & paint finish.
- Brickforce joints at window sill and wall plate.
- DPC (375 micron) to be fitted on first course of bricks/blocks, at window sill & at lintel level .
- Outer walls to be 250mm thick and all inner walls to be 110mm.
- All brick work to be brick forced every fourth course.
- Lintel supports over all openings.
- Wire ties, or hoop iron to be fitted four courses from roof level.

Construction.
- All foundations to comply with SANS 10400-2010, Part H
- Strip foundation to be min. 800x300mm.
- All foundations to engineers detail.
- FFL to be min. 250 above FGL.
- All floors to comply with SANS 10400-2010, Part J
- 100mm Concrete slab on 193 BRC mesh on 225mm Hardcore fill.
- Ground under concrete slab to be poisoned with 5% PCP in solution.
- DPM (250 micron) fitted between hardcore & slab.

Windows and doors
- All windows to be copper anodized aluminum.
- All doors to be copper anodized aluminum.
- Also see plan views for widow and door schedule numbers.

Glazing
- All glazing to comply with SANS 10400-2010, Part N,N2 & N3
- All glass below 300mm must be fitted as safety glass.
- All sliding doors with on area greater than 3.2 meters square must be fitted with markers.

Lighting and ventilation
- Lighting & ventilation to comply with SANS 10400-2010, Part O.
- Artificial lighting in accordance with SANS 10400-2010. Part O.
- All rooms to have 10% natural lighting.
- All passages & kitchens to have min 160 lux.
- Any ventilating extractors must be to a min. 20Ltrs per second.
- All fresh air to be supplied at 7.5Ltrs per person per second.
- Other air distribution to be at a max. velocity of 0.5 mps.

Sewer Notes
- All drainage to comply with SANS 10400-2010, Part P & Q .
- All gulley, manhole covers & surroundings to be 75mm above FGL.
- Sewer connections to be exposed before commencing work.
- Soil pipes to be 110mm (OD) and 100mm (ID).
- All sewer line starts to be 450mm below FGL, min. fall 1:60.
- 2 way vent valves to be fitted at head of all drain runs.
- Waste pipes to be 50mm.
- Rodding eyes at all beginnings & to be fitted every 25 meters.
- IEs provided at bends, junctions & wherever pipe changes direction.
- Maximum run for PVC sewer pipes to be 25 meters.
- Manholes to be fitted for each continuous run over 25 meters (see PP21.1 (e) iv).
- Anchor blocks to be provided where gradients exceed 1:40.
- All sewer and storm water pipes to pass through walls as provided, all to be in accordance with SANS 10400-2010, Part P, PP24.3.
- Heavy duty pipe to be encased in conc. where any structure passes over such sewer line & same is to be protected from any loads imposed on it.

General notes
- All queries to be referred to the author of this plan.
- Contractors to use figured dimensions and not to scale drawing.
- All dimensions & levels to be checked on site prior to construction.
- All work to comply with current by-laws.
- All work to comply with SANS 10400-2010.
- SANS 10400, Part B to be considered.
- All wall work to be wire tied and brick forced.
- Land surveyors drawings to be checked as verification that the correct levels are used.
- No building work to commence prior to approval of these plans.
- Any construction prior to approval of plans will be at owner's risk.
- Contractor to ensure that no changes in levels are made over local authority servitudes, or underground services unless permission has been given in writing by the local authority.
- Contractors to inspect the approved plans & take note of all local authority requirements.
- Contractors to make good all existing work affected by alterations, where applicable.
- All levels & dimensions to be checked on site prior to construction.

SCHEDULE OF AREA.

AREA OF SITE:		886.00m²
PER. COVERAGE:	50%	443.00m²
PER. FAR:		m²
EX. F.A.R :		m²
PROP. F.A.R:		m²
TOTAL F.A.R:		m²
EX. COVERAGE:		337.25m²
PROP. COVERAGE:		m²
TOTAL COVERAGE:		337.25m²
PROPOSED FIRST FLOOR:		274.25m²

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550 Lilian Ngoyi Rd	T. Nel	0826625690	
552 Lilian Ngoyi	D. Moodley	0827867604	

PROPOSED ADDITIONS TO EXISTING DWELLING - FIRST FLOOR.

OWNER:

TRADA INVESTMENTS(PTY)LTD
555 LILIAN NGOYI ROAD
MORNINGSIDE
DURBAN
4001.
TEL:079 888 1547

(POA)
Signature

RATE NO:

SITE DESCRIPTION
ERF 269 DURBAN & PTN 8 OF ERF 274 DURBAN.

DATE:	SCALES USED:	
18/08/2022	1:100	
Plan No. 1415/08/2022	Page 1/1	Rev: 0

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