

**MUNICIPAL APPROVAL STAMP:**  
 MUNICIPALITY - GEORGE - MUNISIPALITEIT  
 APPROVED/GOEDGEKEUR  
 DATE/TYD: 2021.03.13  
 BOUWHEER BEAAMPT/BUILDING CONTROL OFFICIAL

**KRAAIBOSCH HOMEOWNERS ASSOCIATION APPROVED**  
 Signed: [Signature] Date: 23.03.2021  
 NOTE: No amendments to this drawing or future additions/alterations to completed buildings may be made without prior approval of Kraaibosch HOA/DRP.  
 APPROVAL CODE: KRCM - 01/EG/01

**BUILDING CLASSIFICATION (AS PER SANS 10400 A)**

Dwelling House	H4
Bedrooms	3
Population max. 2 people per bedroom	6

**STATUTORY NOTES - ERF AND BUILDING DATA:**

Area of erf 24662	1,002.00 m <sup>2</sup>
Area of dwelling - Ground Storey	172.30 m <sup>2</sup>
Area of garage - Ground Storey	44.95 m <sup>2</sup>
Area of covered exterior - Ground Storey	22.20 m <sup>2</sup>
Area dwelling - First Storey	0.00 m <sup>2</sup>
Area of covered exterior - First Storey	0.00 m <sup>2</sup>
Total area of buildings	239.45 m <sup>2</sup>
Total area of Ground Storey	239.45 m <sup>2</sup>
Total area of First Storey	0.00 m <sup>2</sup>
First Storey to Ground Storey percentage (50% max. allowed)	0.00 %
Coverage (based on footprint - dwelling only - 239.45m <sup>2</sup> )	✓ 23.90 %
Area of open patio(s)/pergolas - Ground Storey	4.20 m <sup>2</sup>
Area of open patio(s)/pergolas - First Storey	0.00 m <sup>2</sup>
Area of dry yard + service yard	32.00 m <sup>2</sup>
Area of swimming pool	0.00 m <sup>2</sup>
Coverage total (footprint - dwelling + dry yard + open patio - 275.65m <sup>2</sup> )	27.50 %
Total footprint - dwelling + dry yard + open patio	275.65 m <sup>2</sup>
Remainder area of erf	726.35 m <sup>2</sup>
Hard landscaping area allowed (35% of erf remainder)	254.22 m <sup>2</sup>
Soft landscaping area allowed (65% of erf remainder)	472.13 m <sup>2</sup>
Actual area of hard landscaping	170.70 m <sup>2</sup>
Actual area of soft landscaping remaining	555.45 m <sup>2</sup>
Percentage hard landscaping to erf remainder	✓ 23.50 %
Percentage soft landscaping to erf remainder	✓ 76.50 %
Total roofed area	239.45 m <sup>2</sup>
Flat roof area	5.00 m <sup>2</sup>
Percentage flat roof to pitched roof (allowed 30%)	✓ 2.09 %
Allowable height from avg. N.G.L.	8.50m
Stores	ONE
Building Lines	as indicated
Servitudes	n/a
Lowest point on building envelope (L.P.)	188.500
Highest point on building envelope (H.P.)	190.700
Average Natural Ground Level	189.600
Maximum height (8.50m building height restriction)	198.100
Indicated Benchmark Height - Manhole cover (Street)	191.140

- Notes - Stormwater:**
- All paving and topsoil shaping/backfill to be done to allow stormwater discharge away from dwelling;
  - Stormwater according to SANS 10400 Part-R and to engineer's details.
- Notes - Drainage:**
- All drainage to comply with N.B.R. - SANS 10400 Part-P;
  - Provide inspection eyes to all bends and junctions;
  - Provide inspection eyes to all change in directions;
  - Inspection eyes to be based and clearly marked;
  - Drains passing under building/traffic areas to be protected against the imposed load as per N.B.R.;
  - Provide reset traps to waste fittings which are to be accessible for maintenance;
  - Waste pipe dia. to be 50mm diameter;
  - Shower waste pipes to be 75mm diameter;
  - Soil pipes to be 110mm diameter;
  - Soil pipes exceeding 6.0m in length to be vented;
  - Gradient of drains to be 1:60 fall minimum and 1:40 maximum.

**Health and Safety:**

The owner shall prepare Health and Safety specifications and include on the tender documents for the contractor to price as per the Construction Regulations 2014.

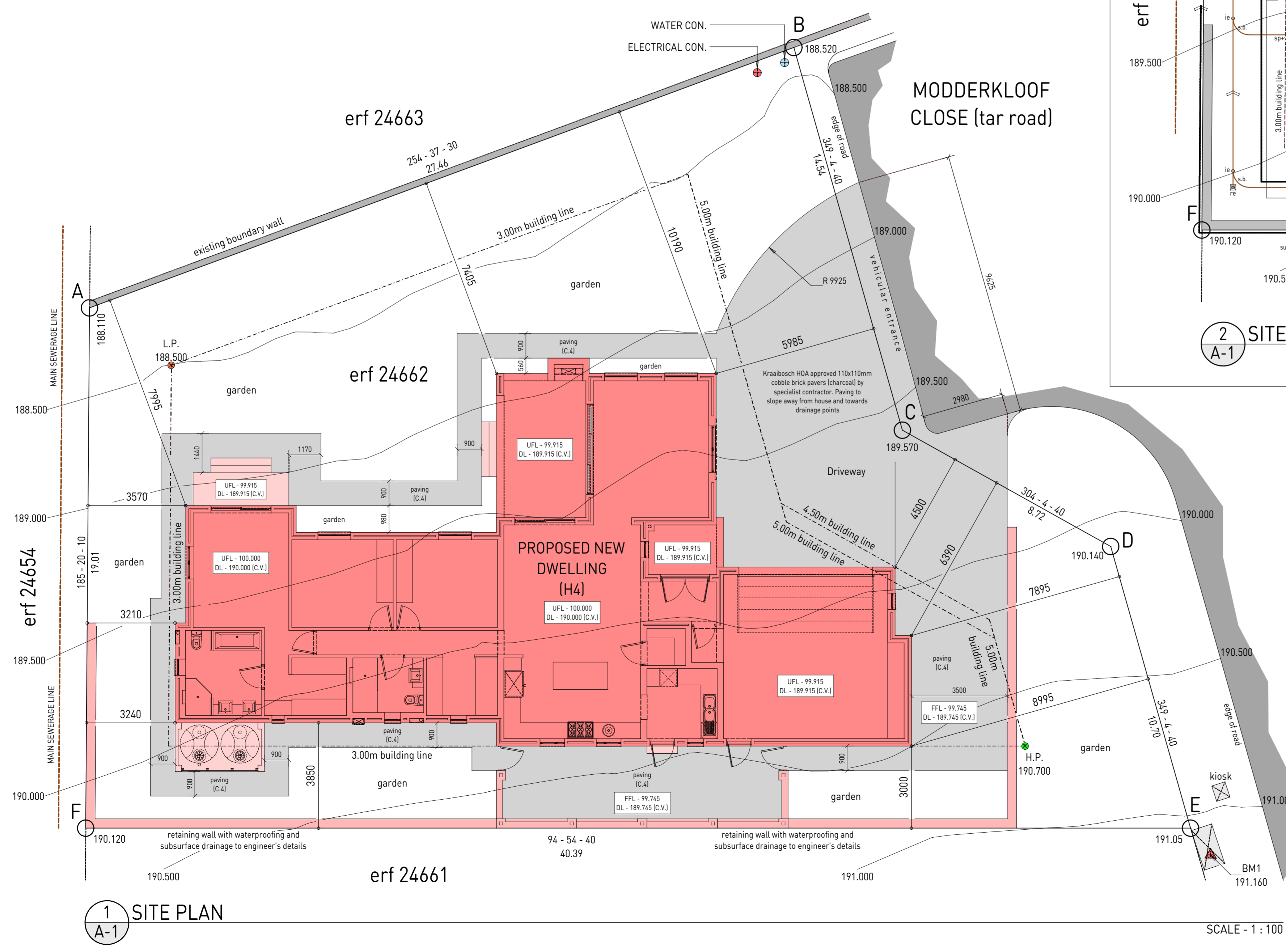
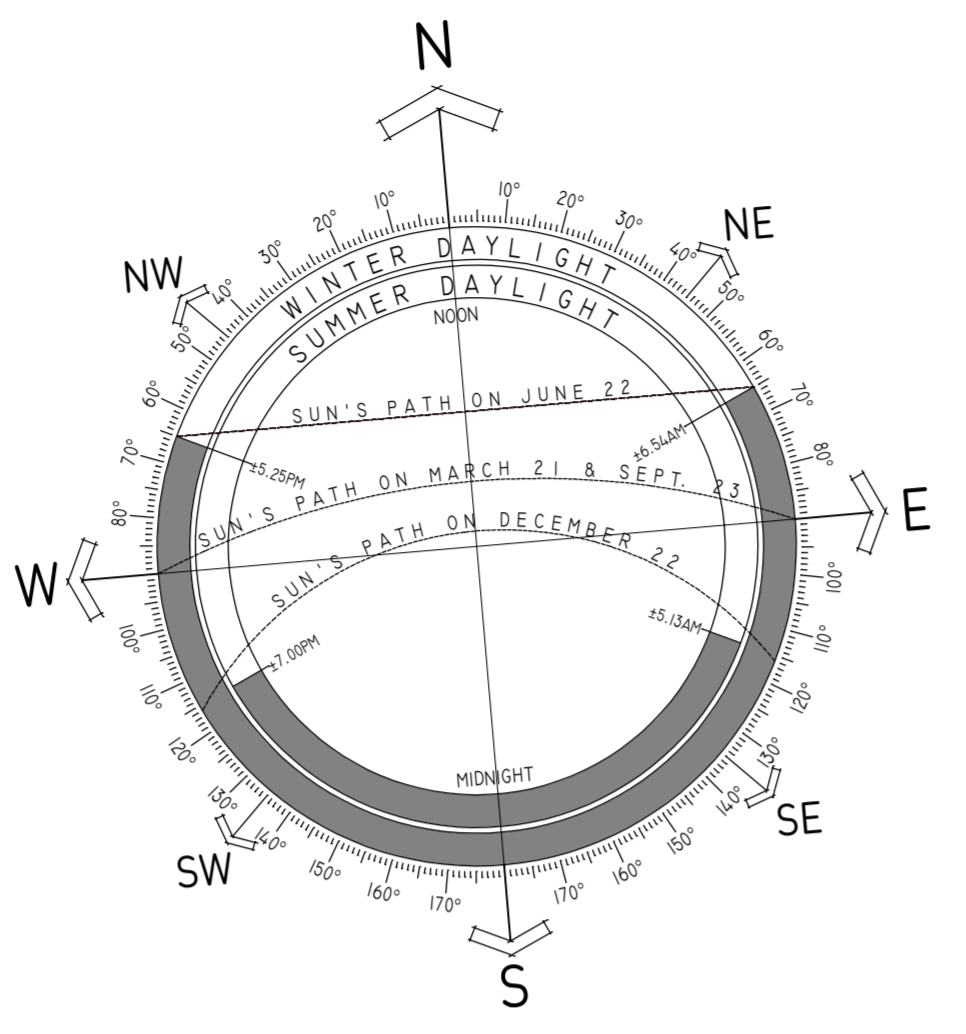
The contractor shall send a notification of construction to the Dept. of Labor within 7 (seven) days prior to starting construction, as per Construction Regulations 2014.

The contractor shall prepare a Health and Safety plan which must be kept on-site at all times and shall be managed and inspected by a Health and Safety Manager/Agent at the contractor's expense and instruction.

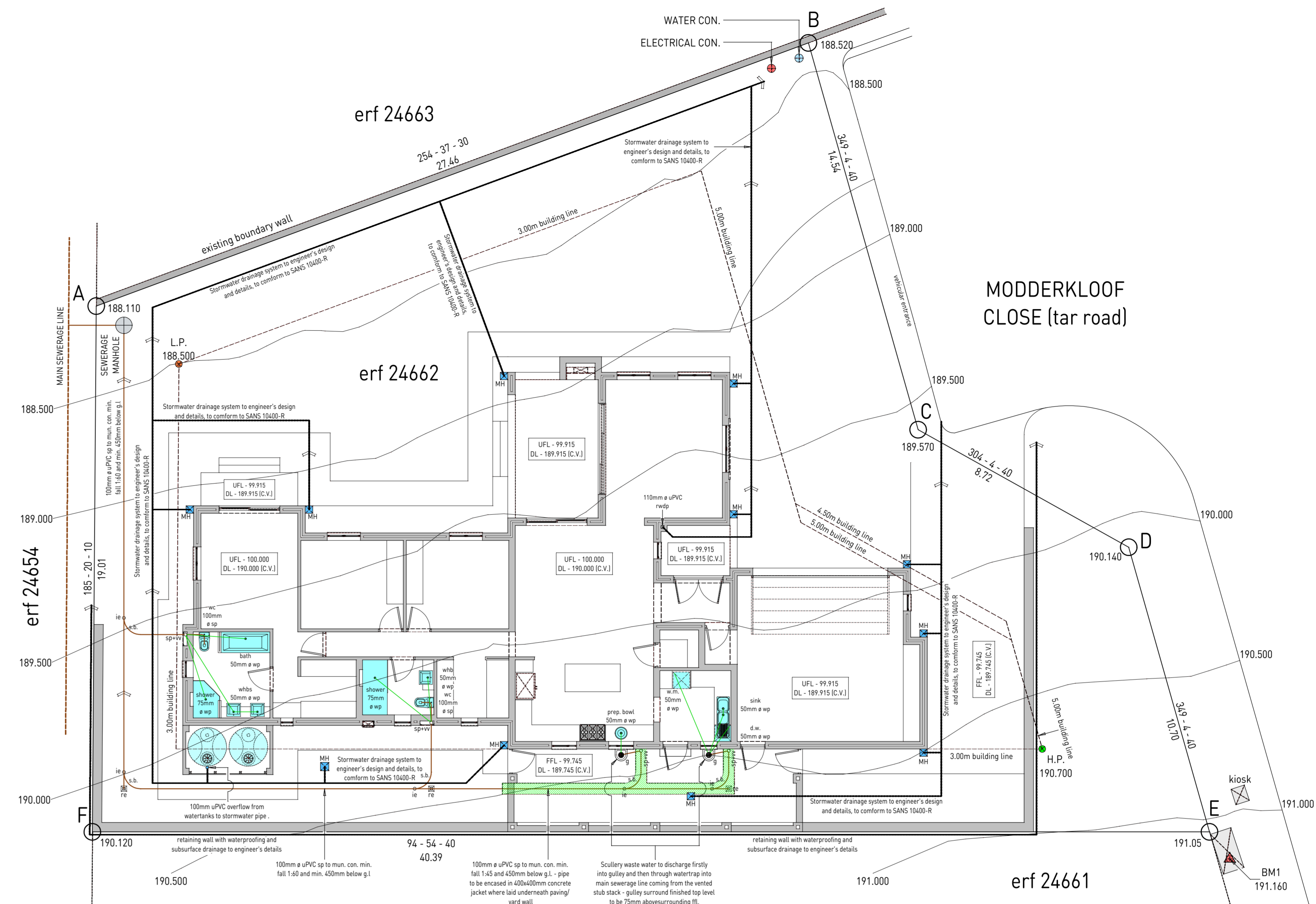
The owner shall inspect the Health and Safety reports regularly (i.e. monthly) and ensure that the Construction Regulations 2014, Health and Safety Act are being adhered to.

**DRAWING SHEETS:**

Sheet A1:	Erf & Building Data and Site Plan + Ground Storey Sewerage & Stormwater Layout
Sheet A2:	Ground Storey Floor Plan
Sheet A3:	Roof Plan + Elevations
Sheet A4:	Section A-A and Section B-B
Sheet A5:	Windows + Doors Schedule
Sheet A6:	Electrical + Lighting Layouts
Sheet A7:	Water Retention Layout



**1 SITE PLAN**



**2 SITE PLAN + GROUND STOREY SEWERAGE & STORMWATER LAYOUT PLAN**

**DRAINAGE AND PLUMBING LEGEND:**

a-rwdp	75x50mm aluminium rectangular fluted downpipes with crimped bends
bath	Bath
d.sink	Double sink
d.w.	Dishwasher
g	Gully
ie	Inspection Eye
re	Rodding eye all direction change and max. every 25.00m
sh	Shower
MHR	300x300mm square stormwater sump to stormwater drainage system to engineer's details
rwdp	110mm uPVC down pipe
wc	Cistern toilet pan
whb	Wash hand basin
w.m.	Washing machine
s.b.	Slow bend @ 600mm radius
p.b.	Preparation bowl
sp	110mm uPVC soil pipe
sp-w	110mm uPVC soil pipe + vent valve
o.f.	110mm uPVC overflow from watertanks to stormwater pipe
50mm ø	50mm ø uPVC waste pipe
75mm ø	75mm ø uPVC waste pipe
110mm ø	110mm ø uPVC soil pipe

**HOA & Municipal Submission**

Design/Drawn:	H.J. Kruger SACAP Reg. No. 00139 SAB Reg. M0781
Date:	January 2021
Scale:	1:100
Reference Number:	2101.03
Drawing Number:	2101.03A.1

**Revisions:**

Revision No.	Date	Description

**Revisions:**

Contractor to build in approved O.P.C. (limestone or not these are shown on drawings) all walls at least 100mm thick and all windows, doors, gables or other openings in external walls unless otherwise shown.

ENT - All existing services to be protected and maintained during the construction period. Any damage that may occur is to be made good by the contractor.

DN2 - These drawings are to be read in conjunction with other specialist drawings.

DN3 - All 700mm walls are required as early walls and the necessary dpc to be installed around all windows, doors and openings. Piping in wall above dpc level on outside to be left open at 1000mm c/c.

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**Project Title:** PROPOSED NEW DWELLINGS (H4)  
**For Client:** MRS. L. LEWIS  
**Stand Number:** ERF 24662, 31 MODDERKLOOF CLOSE, KRAAIBOSCH MANOR, GEORGE

**ARCHIDRAFT**

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MUNICIPAL APPROVAL STAMP: MUNICIPALITY - GEORGE - MUNISIPALITEIT APPROVED/GOEDGEKUR DATUM/DATE: 2023-03-21

- GENERAL NOTES: ROADS AND INFRASTRUCTURES: A.1 All existing services to be protected and maintained during the construction period. UNDERFLOOR & FLOOR FINISHES: B.1 Concrete strip foundations and foundation walls to be designed by engineer.

- FLOOR FINISHES: C.1 As shown on drawings and to clients choice. C.2 Tile/Target/Laminate floor finishes as per client's choice and installation in all instances to manufacturer's and/or supplier's specifications.

- WALLS: GENERAL NOTES: Moisture content of walls to be measured before the application of any point finishes and not to exceed 5%.

- Notes - Drainage: - All drainage to comply with N.B.R. - SANS 10400 Part P; - Provide inspection eyes to all bends and junctions;

- Notes - Roof: - Roof plan - refer to roof manufacturer's drawings for positions and specifications of trusses and bracing;

- Notes - Gas Installation: All sizes, storage and safety distances to be checked and to be in compliance with SANS 10087-1, SANS 10400 and other applicable regulations and local municipal by-laws.

ROOFING: M.1 COLORPLUS® - A2150 (with 'ZincAl®' core) corrugated profile roof sheeting (colour: 'Rain Cloud' - light grey) fixed in long lengths strictly in accordance to manufacturer's specifications with written guarantee on approved 50x75mm SAP rafters @ 1.200m max. centres on 'RaderShield' dimensional aluminum radiant barrier (R-Value 1.57) Installation strictly to manufacturer's specifications fixed on prefabricated roof trusses (design and manufacturing by roof specialist - truss spacing @ max. 1.200m centres.

M.2 20mm thick gravel ballast on ABE Construction Chemical waterproofing by specialist contractor strictly according to manufacturer's details on 50mm stepped screed with 40x40mm corner fillets on 170mm thick insitu concrete roof slab to engineer's specifications. Screed to fall towards 110mm outlet as indicated.

M.3 Walls to be build up and plastered to under floor cladding to minimize airflow. M.4 Enclosed eaves and gable overhangs with soffit board - 10mm 'Nutec' fibre-cement board, fixed strictly according to manufacturer's details (painted white) to 50x75mm SAP battens fixed to wall.

RAINWATER GOODS: P.1 Gutters and downpipes to be seamless aluminium with OGEE profile - supplied and installed by specialist (colour to match roof). Gutters and downpipes to conform to SANS 10400 Part R.

PLUMBING: Q.1 Water supply installation to be in accordance with SANS 10252-1. Q.2 Water drainage to be according to SANS 10400 Part P. Drainage.

Q.3 All exposed pipes from gas water heaters to be insulated with patent pipe insulation material with an R-Value of 1 or better. The installation shall be protected against the effects of weather and sunlight and be able to withstand the temperature to which the piping to be insulated includes all flow and return piping, cold water supply piping within 1.0m of the connection to the heating system and pressure relieve piping within 1.0m of the connection to the heating system.

E.1 External walls to be 270mm thick approved clay plaster bricks - NF3 (14MPa min.) laid stretcher bond with class 'm' mortar (conform to SANS 2001-CM1). Build as cavity - cavity width min. 50mm. Wall leaves to be joined together by means of galvanized butterfly wall ties.

E.2 All internal walls to be 270x270x110mm approved clay plaster bricks - NF3 (14MPa min.) laid stretcher bond with class 'm' mortar (conform to SANS 2001-CM1). Provide brick work every 4th course vertical. Where internal walls extend vertically to form an external wall, construction of these walls to be as per external walls.

E.3 The outer face of the internal skin of the cavity wall to be treated with 2 coats 'Flintkote' to at least 1.0m above stepped d.p.c. E.4 All plaster junctions between concrete and brickwork to be through V-jointed.

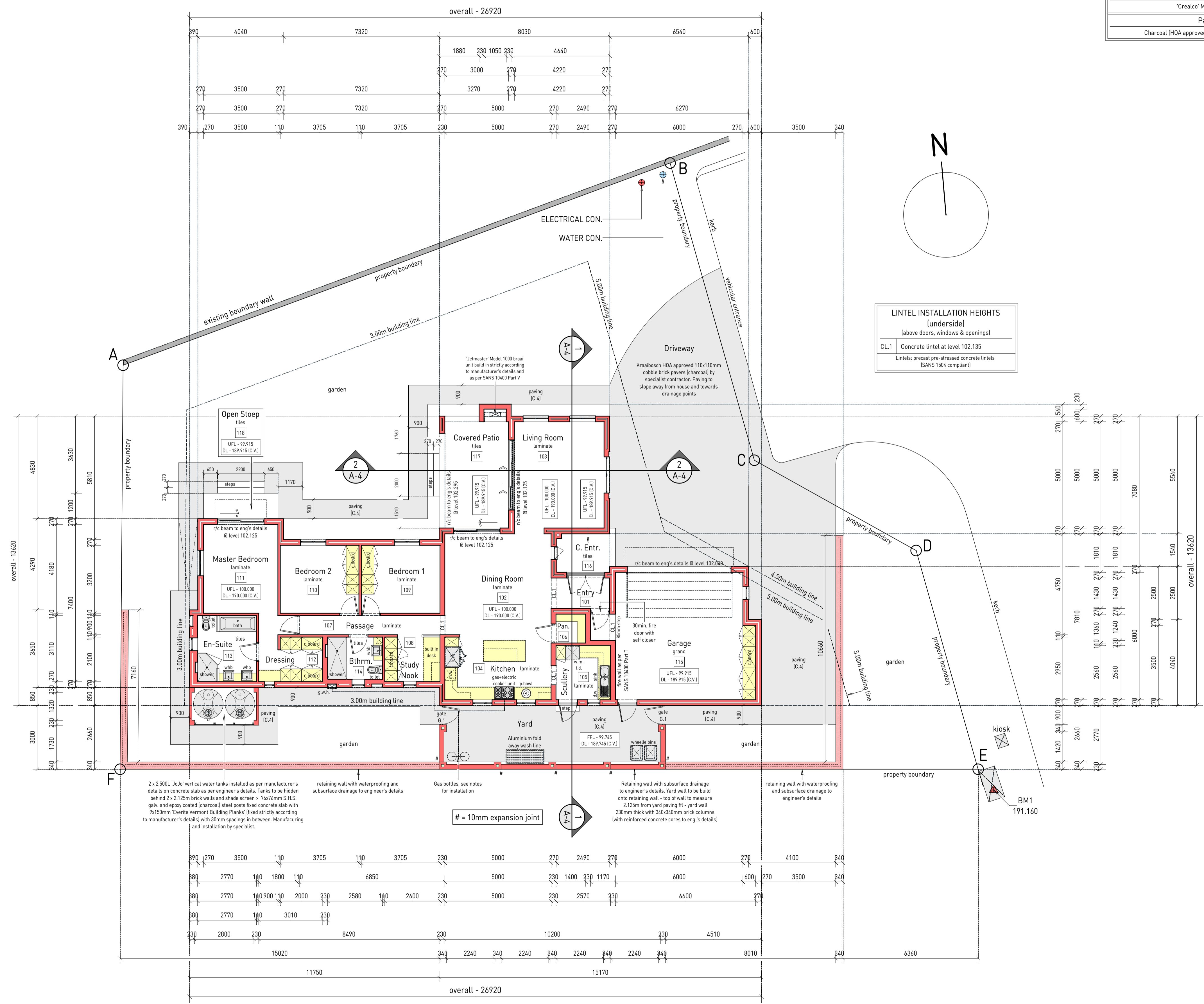
E.5 Built in waterproofing under all brick sills. E.6 Precast pre-stressed concrete lintels (SANS 1504 compliant) over windows, doors & openings and brick face & additional reinforcement to be provided, all as per SANS Part K - Walls.

E.7 Reinforced concrete cavity beams to engineer's details as indicated on plan. E.8 Reinforced concrete beams to engineer's details as indicated on plan. E.9 Wall cavity to be filled with concrete from level 102.210 to wall plate level.



NOTE: No amendments to this drawing or future additions / alterations to completed buildings, may be made without prior approval of Kraai Bosch HOA/DPP.

NOTE TO OWNER/BUILDING CONTRACTOR: ENERGY EFFICIENCY CALCULATIONS HAS BEEN DONE ON THE FOLLOWING ELEMENTS OF THE PROJECT: WALLS, FENESTRATION, ROOF ASSEMBLY, ENERGY DEMAND AND CONSUMPTION LIGHTING AND ELECTRICAL LAYOUT, HOT WATER DEMAND AND HEATING TO COMPLY WITH ENERGY EFFICIENCY REQUIREMENTS OF SANS 10400XA AND SANS 204:2011.



GROUND STOREY FLOOR PLAN

SCALE - 1 : 100

Table with 2 columns: Colours (Dominant Exterior Colour, Accents: Highlight Colour) and other specifications like Roof, Fascias, Gutters & Downpipes, Windows & Doors, Paving.

Table with 2 columns: Drawing Status (HOA & Municipal Submission) and Revisions (Description, Date, Revision No.).

Table with 2 columns: Drawing Status (HOA & Municipal Submission) and Revisions (Description, Date, Revision No.).

Notes: GNB - Contractor to build in approved P.C.C. (whether or not these are shown on drawing) in all walls at level and level and at windows, doors, gables or other openings in external walls unless otherwise shown.

GNB - Contractor to be read in conjunction with other specialist drawings. GNB - Any inconsistencies or discrepancies must be brought under the attention of the principal agent for consultation or clarification before work is taken on hand.

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**MUNICIPAL APPROVAL STAMP:**

MUNICIPALITY - GEORGE - MUNISPALITEIT

APPROVE/GOEDGEKUR

DATE/TIME: 2021-03-10

BOUWHEER BEAAMTE/BUILDING CONTROL OFFICIAL

**GENERAL NOTES:**

**ROADS AND INFRASTRUCTURES:**

A.1 All existing services to be protected and maintained during the construction period. Any damage that may occur is to be made good by the contractor.

**UNDERFLOOR & FLOOR FINISHES:**

B.1 Concrete strip foundations and foundation walls to be designed by engineer. Foundations to be a minimum of 450mm below ground level. Investigate ground conditions before design, costing and commencing with building work.

B.2 Foundation walls to engineer's details - wall cavity to be filled with concrete to floor level.

B.3 Foundation walls to engineer's details.

B.4 100mm thick [DMPA] concrete floor slab with mesh ref. 193 on 250-micro waterproofing membrane on 50mm sand bed on layers of max. 150mm deep imported filling compacted to 98% mod. AASHTO - floor construction to be verified by engineer. Filling exceeding 400mm in height at any point, to be designed and inspected by engineer. Waterproofing membranes to be turned up around the perimeter by thickness of slab and stepped up leading into walls. Also to overlap by 200mm at the joints. Penetration by pipes, plumbing fittings or punctures to be taped with a pressure sensitive adhesive tape approved for such use by manufacturer.

B.5 1.3 cement screed laid on top of surface bed to take floor finishes, adjusted in thickness according to finishes specified, but allowing for a total floor finish above sft of 30mm. Screed to be laid once provision has been made for proper gridding.

NOTE: No traffic whatsoever is to be allowed over screeds whilst curing.

**FLOOR FINISHES:**

C.1 As shown on drawings and to clients choice.

C.2 Tile/Carpet/Laminate floor finishes as per client's choice and installation in all instances to manufacturer's and/or supplier's specifications.

C.3 Concrete floor to receive final concrete topping to be stepped down for showers. Provide cement screed laid with fall to outlet pan. Provide CEMFLEX waterproofing before laying of floor and wall tiles for shower, bath and basin areas.

C.4 Brick pavers - Kraaibosch HOA approved 110x110mm cobble brick pavers (colour charcoal) on 50mm sand bed layer of max. 150mm layers of approved well compacted hardcore filling - all paving to be laid to slope away from building and/or towards drainage points. Paving laid by specialist and HOA approved.

**SKIRTING:**

D.1 Decorative skirting secured to wall to suppliers specifications. Securing points to be properly spaced with fitted wood putty and sanded smooth. Skirting to be in long lengths with neatly mitred joints and corners. Apply 2 coats wood sanding sealer, sanded between coats.

**WALLS:**

GENERAL NOTES: Moisture content of walls to be measured before the application of any paint finishes and not to exceed 5%. The surfaces of all plastered walls and concrete as well as all other surfaces to be prepared in accordance with the specifications and requirements as per the paint manufacturer's.

E.1 External walls to be 270mm thick, approved clay plaster bricks - NFX (14MPa min.) laid stretcher bond with class II mortar (comply to SANS 2001-CM1), build up cavity - cavity width min. 50mm. Wall leaves to be joined together by means of galvanized butterfly wall ties, installed horizontally c/c 450mm and vertically every 3rd course, average of 4 wall ties per 1m<sup>2</sup>. Additional ties shall be provided in cavity walls at vertical centres that do not exceed 300mm centres within 150mm of the edges of all openings and movement or control joints (for both) and where a leaf intersects with another wall. DPC to be 375 micron stepped - built into inner skin and stepped outwards with one brick course lower. Every 4th slip to be cleared on the outside. Brick force to be installed in external and internal leaves of cavity wall every 4th course, and every course above lintel level (2.10m) - walls to be built according to SANS 10400 Parts K, B & T. All cavity walls to be cleaned regularly.

E.2 All internal walls to be 270/230/110mm approved clay plaster bricks - NFX (14MPa min.) laid stretcher bond with class II mortar (comply to SANS 2001-CM1), provide brick force every 4th course vertical. Where internal walls extend vertically to form an external wall, construction of these walls to be as per external walls.

E.3 The outer face of the internal skin of the cavity wall to be treated with 2 coats 'Flintkote' to at least 1.0m above stepped d.p.c.

E.4 All plaster junctions between concrete and brickwork to be through V-jointed.

E.5 Built in waterproofing under all brick sills.

E.6 Precast pre-stressed concrete lintels [SANS 1504 compliant] over windows, doors & openings and brick force & additional reinforcement to be provided, all as per SANS Part K - Walls.

E.7 Reinforced concrete cavity beams to engineer's details as indicated on plan.

E.8 Reinforced concrete beams to engineer's details as indicated on plan.

E.9 Wall cavity to be filled with concrete from level 102.210 to wall plate level.

E.10 External plaster: Cement plaster to be cement/sand 1:4 plaster mix and finished with wooden trowel to match finish standard of sample panel. All blemishes to be filled and sanded to an approved finish and painted. Smooth plaster finish, plaster primer, undercoat - 2 coats pure acrylic - exterior colours as per Kraaibosch approved colours list for general wall area and plaster bands/accents areas.

E.11 Internal cement plaster to be finished cement/sand 1:4 plaster mix with steel trowel to smooth polish finish, cleaned and prepared. All blemishes to be filled and sanded to an approved finish. Apply one coat and finish off, then one coat thinned 10% with mineral turpentine, followed by 2 coats of Plascor Double Velvet or similar. Colour as per client.

E.12 External wall colours: as per Kraaibosch HOA approved colours.

**CEILING:**

F.1 9.5mm thick Gyproc RhinoBoard ceiling board fixed strictly according to manufacturer's specifications to Donn Steel Branding' suspended from roof trusses/rafters with 'Donn Suspension Brackets' - installation of branding and suspension brackets strictly as per manufacturer's details and specifications. All ceiling board joints to be covered with Gyproc RhinoTap (flexible over butt joints) and the ceiling then plastered with 2-coat of 'Gyproc RhinoLin' skim coat plaster applied as per manufacturer's instructions and painted.

F.2 Gyproc CreteStone skim on concrete slabs internally finished smooth, level and true. Apply 1 coat plaster primer u.c. 5% thinned with 20% turpentine and then 2 coats of 'plaster pro - colour to client's choice. 'CreteStone' to be applied as per manufacturer's details.

F.3 100mm 'Aerostyle' (R-Value 2.50) thermal roof insulation to be laid on ceiling boards - insulation to be laid strictly according to manufacturer's details and to be laid to span from wall to wall. It should further be installed so that it abuts or overlaps the adjoining insulation, or is sealed, forms a continuous barrier with the ceilings and walls, and that it does not affect the operation of any services, installations, equipment and/or fittings.

**CORNICE:**

G.1 Gyproc RhinoArt Decor Polystyrene Cornice' mouldings - fixed and painted to manufacturer's details.

**INTERNAL SILLS:**

H.1 Plastered internal sills.

**EXTERNAL SILLS:**

J.1 External sills to be formed by sloping brickwork set project 240mm from wall face. To be laid on 350 micron d.p.c.

**WINDOW FRAMES AND WINDOWS:**

K.1 Aluminium window frames by specialist as per schedule and to SABS specifications. Windows to be built in as per manufacturer's specifications and have d.p.c. on all sides.

K.2 Glazing to conform to the requirements of the SANS 10400 Part N for glazing. Nominal thickness and maximum glass areas to comply with SANS 10137. Also to be SANS 204 compliant.

K.3 Permissible air leakage [AL] for openable and non-openable glazing as per SANS 204-2011

**DOORFRAMES AND DOORS:**

L.1 Aluminium/wood door frames by specialist as per schedule to SABS specifications. Door frames to be built in with d.p.c. and treated as per manufacturer's specifications.

L.2 Internal and external doors as per door schedule.

L.3 Permissible air leakage [AL] for openable and non-openable glazing as per SANS 204-2011

**ROOFING:**

M.1 COLORPLUS® - AZ150® (with 'ZincAl®' core) corrugated profile roof sheeting (colour: 'Rain Cloud' - light grey) fixed in long lengths strictly in accordance to manufacturer's specifications (with written guarantee on approved 500mm SAP purlins @ 1.200mm max. centres) on 'RaderShield C/Imasental' aluminium rafter barrier (R-Value 1.57) (installation strictly to manufacturer's specifications) fixed on prefabricated roof trusses (design and manufacturing by roof specialist) - truss spacing @ max. 1.200m centres. Trusses tied down with double strand 3mm galvanized wire ties (bolted into wall at least 7 brick courses) on to 38x140mm SA pine wall plate (refer to roof specialist's roof plan for final truss positions). Flashing and ridge cap should be manufactured from same material as used for roofing. Eave overhangs to be 90mm from unplastered wall. Roof pitch 35°.

M.2 50mm thick gravel ballast on ABE Construction Chemical waterproofing by specialist contractor strictly according to manufacturer's details on 50mm sloped screed with 40x40mm corner fillets on 70mm thick m/su concrete roof slab to engineer's specifications. Screed to fall towards 110mm outlet as indicated.

M.3 Walls to be built up and plastered to under roof cladding to minimize airflow.

M.4 Enclosed eaves and gable overhangs with soffit board - 10mm 'Nutec' fibre-cement board, fixed strictly according to manufacturer's details (painted white) to 50x76mm SAP batten fixed to wall.

**FASCIA BOARDS:**

N.1 'Nutec' 12x225mm fibre-cement fascia boards fixed to truss eave overhangs and 50x76mm SAP batten fixed onto plastered brick wall. Installation and painting according to manufacturer's specifications.

**BARBOARDING:**

O.1 'Nutec' 12x225mm fibre-cement boards fixed to roof purlin ends and 50x76mm SAP bracing (fixed to plastered brick wall with 100x220mm 'COLORPLUS® - AZ150®' with 'ZincAl®' core) - colour to match roof metal roof barge flashing (1100mm vertical dimension) - colour to match roof colour. Installation and painting of all elements according to manufacturer's specifications.

**RAINWATER GOODS:**

P.1 Gutters and downpipes to be seamless aluminium with OGEF profile - supplied and installed by specialist (colour to match roof). Gutters and downpipes to conform to SANS 10400 Part R.

**PLUMBING:**

Q.1 Water supply installation to be in accordance with SANS 10252-1.

Q.2 Water drainage to be according to SANS 10400 Part R: Drainage.

Q.3 All exposed pipes from gas water heaters to be insulated with patent pipe insulation material with an R-Value of 1 or better. The installation shall be protected against the effects of weather and sunlight and be able to withstand the temperatures within the piping. Piping to be insulated includes all flow and return piping, cold water supply piping within 1.0m of the connection to the heating system and pressure relief piping within 1.0m of the connection to the heating system. Where possible, lengths of pipes should be minimized.

**Notes - Electrical:**

- The installation conform to N.B.R., SANS 204:2011 and local by laws. All appliances to be fitted by merchant & connected by electrical contractor.

- All conduits to be free of any water and debris.

- Supply compliance certificate after installation.

- Light switches to be min. 150mm away from all openings (where possible) and at a centre height of 1.10m from the f.f.l.

- Allow for 3x25mm conduits between s.c. dish and all points:

- 1 x Rinnai Infinity 32L (external) gas water heater installed in 'Rinnai Smart Smartbox®' recess enclosure'. All components to be installed by specialist contractor according to manufacturer's details [SANS 204:2011 - Energy Efficiency in Buildings].

- Electrical points as per lay-out plan.

- Light points as per lay-out plan - to comply with SANS 10400-XA & SANS 204:2011 for energy efficiency in buildings.

**Notes - Gas Installation:**

All sizes, storage and safety distances to be checked and to be in compliance with SANS 10087-1, SANS 10400 and other applicable regulations and local municipal by-laws.

Area to be kept clear of combustible material, obstacles, all safety warnings notices to be provided.

Gas bottles cannot be placed:

- closer than 1.0m to door;
- closer than 2.0m to open drain/gully where gas can leak into;
- closer than 5.0m from elec. switch, motor, generator, pool pumps, etc.;
- closer than 1.0m from the side of a window, unless there is at least 3.0m spaced between bottom of window and top of gas bottle, may be recessed to 300mm if there is non combustible roof over installation;
- closer than 1.0m from boundary wall, unless wall is 230mm thick brick wall and 1.80m high with no ventilation gaps in the wall.

Supply shut off valves at appliances.

Registered LP gas installer to be used for gas system installation installation signed off by installer with a valid certificate.

**Notes - Bireplaces/Braais + Chimneys and Flues:**

- The installation of premanufactured fireplace/brail units, flues, heat insulation material and waterproofing must be done according to the manufacturer's detailed installation instructions and in accordance with SANS 10400 parts V & T - any combustible material must a minimum of 200mm from chimney/flue.

- The chimney or flue of an open solid-fuel burning appliance shall be provided with a damper or flap that can be closed to seal the chimney or flue.

- Chimney heights to comply to SANS 10400 Part V.

**Notes - Electrical:**

- The installation conform to N.B.R., SANS 204:2011 and local by laws. All appliances to be fitted by merchant & connected by electrical contractor.

- All conduits to be free of any water and debris.

- Supply compliance certificate after installation.

- Light switches to be min. 150mm away from all openings (where possible) and at a centre height of 1.10m from the f.f.l.

- Allow for 3x25mm conduits between s.c. dish and all points:

- 1 x Rinnai Infinity 32L (external) gas water heater installed in 'Rinnai Smart Smartbox®' recess enclosure'. All components to be installed by specialist contractor according to manufacturer's details [SANS 204:2011 - Energy Efficiency in Buildings].

- Electrical points as per lay-out plan.

- Light points as per lay-out plan - to comply with SANS 10400-XA & SANS 204:2011 for energy efficiency in buildings.

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Supply shut off valves at appliances.

Registered LP gas installer to be used for gas system installation installation signed off by installer with a valid certificate.

**Notes - Bireplaces/Braais + Chimneys and Flues:**

- The installation of premanufactured fireplace/brail units, flues, heat insulation material and waterproofing must be done according to the manufacturer's detailed installation instructions and in accordance with SANS 10400 parts V & T - any combustible material must a minimum of 200mm from chimney/flue.

- The chimney or flue of an open solid-fuel burning appliance shall be provided with a damper or flap that can be closed to seal the chimney or flue.

- Chimney heights to comply to SANS 10400 Part V.

**Notes - Electrical:**

- The installation conform to N.B.R., SANS 204:2011 and local by laws. All appliances to be fitted by merchant & connected by electrical contractor.

- All conduits to be free of any water and debris.

- Supply compliance certificate after installation.

- Light switches to be min. 150mm away from all openings (where possible) and at a centre height of 1.10m from the f.f.l.

- Allow for 3x25mm conduits between s.c. dish and all points:

- 1 x Rinnai Infinity 32L (external) gas water heater installed in 'Rinnai Smart Smartbox®' recess enclosure'. All components to be installed by specialist contractor according to manufacturer's details [SANS 204:2011 - Energy Efficiency in Buildings].

- Electrical points as per lay-out plan.

- Light points as per lay-out plan - to comply with SANS 10400-XA & SANS 204:2011 for energy efficiency in buildings.

**Notes - Gas Installation:**

All sizes, storage and safety distances to be checked and to be in compliance with SANS 10087-1, SANS 10400 and other applicable regulations and local municipal by-laws.

Area to be kept clear of combustible material, obstacles, all safety warnings notices to be provided.

Gas bottles cannot be placed:

- closer than 1.0m to door;
- closer than 2.0m to open drain/gully where gas can leak into;
- closer than 5.0m from elec. switch, motor, generator, pool pumps, etc.;
- closer than 1.0m from the side of a window, unless there is at least 3.0m spaced between bottom of window and top of gas bottle, may be recessed to 300mm if there is non combustible roof over installation;
- closer than 1.0m from boundary wall, unless wall is 230mm thick brick wall and 1.80m high with no ventilation gaps in the wall.

Supply shut off valves at appliances.

Registered LP gas installer to be used for gas system installation installation signed off by installer with a valid certificate.

**Notes - Bireplaces/Braais + Chimneys and Flues:**

- The installation of premanufactured fireplace/brail units, flues, heat insulation material and waterproofing must be done according to the manufacturer's detailed installation instructions and in accordance with SANS 10400 parts V & T - any combustible material must a minimum of 200mm from chimney/flue.

- The chimney or flue of an open solid-fuel burning appliance shall be provided with a damper or flap that can be closed to seal the chimney or flue.

- Chimney heights to comply to SANS 10400 Part V.

**Notes - Electrical:**

- The installation conform to N.B.R., SANS 204:2011 and local by laws. All appliances to be fitted by merchant & connected by electrical contractor.

- All conduits to be free of any water and debris.

- Supply compliance certificate after installation.

- Light switches to be min. 150mm away from all openings (where possible) and at a centre height of 1.10m from the f.f.l.

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- 1 x Rinnai Infinity 32L (external) gas water heater installed in 'Rinnai Smart Smartbox®' recess enclosure'. All components to be installed by specialist contractor according to manufacturer's details [SANS 204:2011 - Energy Efficiency in Buildings].

- Electrical points as per lay-out plan.

- Light points as per lay-out plan - to comply with SANS 10400-XA & SANS 204:2011 for energy efficiency in buildings.

**Notes - Gas Installation:**

All sizes, storage and safety distances to be checked and to be in compliance with SANS 10087-1, SANS 10400 and other applicable regulations and local municipal by-laws.

Area to be kept clear of combustible material, obstacles, all safety warnings notices to be provided.

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- closer than 1.0m from the side of a window, unless there is at least 3.0m spaced between bottom of window and top of gas bottle, may be recessed to 300mm if there is non combustible roof over installation;
- closer than 1.0m from boundary wall, unless wall is 230mm thick brick wall and 1.80m high with no ventilation gaps in the wall.

Supply shut off valves at appliances.

Registered LP gas installer to be used for gas system installation installation signed off by installer with a valid certificate.

**Notes - Bireplaces/Braais + Chimneys and Flues:**

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- The chimney or flue of an open solid-fuel burning appliance shall be provided with a damper or flap that can be closed to seal the chimney or flue.

- Chimney heights to comply to SANS 10400 Part V.

**Notes - Electrical:**

- The installation conform to N.B.R., SANS 204:2011 and local by laws. All appliances to be fitted by merchant & connected by electrical contractor.

- All conduits to be free of any water and debris.

- Supply compliance certificate after installation.

- Light switches to be min. 150mm away from all openings (where possible) and at a centre height of 1.10m from the f.f.l.

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- 1 x Rinnai Infinity 32L (external) gas water heater installed in 'Rinnai Smart Smartbox®' recess enclosure'. All components to be installed by specialist contractor according to manufacturer's details [SANS 204:2011 - Energy Efficiency in Buildings].

- Electrical points as per lay-out plan.

- Light points as per lay-out plan - to comply with SANS 10400-XA & SANS 204:2011 for energy efficiency in buildings.

**Notes - Gas Installation:**

All sizes, storage and safety distances to be checked and to be in compliance with SANS 10087-1, SANS 10400 and other applicable regulations and local municipal by-laws.

Area to be kept clear of combustible material, obstacles, all safety warnings notices to be provided.

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Supply shut off valves at appliances.

Registered LP gas installer to be used for gas system installation installation signed off by installer with a valid certificate.

**Notes - Bireplaces/Braais + Chimneys and Flues:**

- The installation of premanufactured fireplace/brail units, flues, heat insulation material and waterproofing must be done according to the manufacturer's detailed installation instructions and in accordance with SANS 10400 parts V & T - any combustible material must a minimum of 200mm from chimney/flue.

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- All conduits to be free of any water and debris.

- Supply compliance certificate after installation.

- Light switches to be min. 150mm away from all openings (where possible) and at a centre height of 1.10m from the f.f.l.

- Allow for 3x25mm conduits between s.c. dish and all points:

- 1 x Rinnai Infinity 32L (external) gas water heater installed in 'Rinnai Smart Smartbox®' recess enclosure'. All components to be installed by specialist contractor according to manufacturer's details [SANS 204:2011 - Energy Efficiency in Buildings].

- Electrical points as per lay-out plan.

- Light points as per lay-out plan - to comply with SANS 10400-XA & SANS 204:2011 for energy efficiency in buildings.

**Notes - Gas Installation:**

All sizes, storage and safety distances to be checked and to be in compliance with SANS 10087-1, SANS 10400 and other applicable regulations and local municipal by-laws.

Area to be kept clear of combustible material, obstacles, all safety warnings notices to be provided.

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- closer than 1.0m from the side of a window, unless there is at least 3.0m spaced between bottom of window and top of gas bottle, may be recessed to 300mm if there is non combustible roof over installation;
- closer than 1.0m from boundary wall, unless wall is 230mm thick brick wall and 1.80m high with no ventilation gaps in the wall.

Supply shut off valves at appliances.

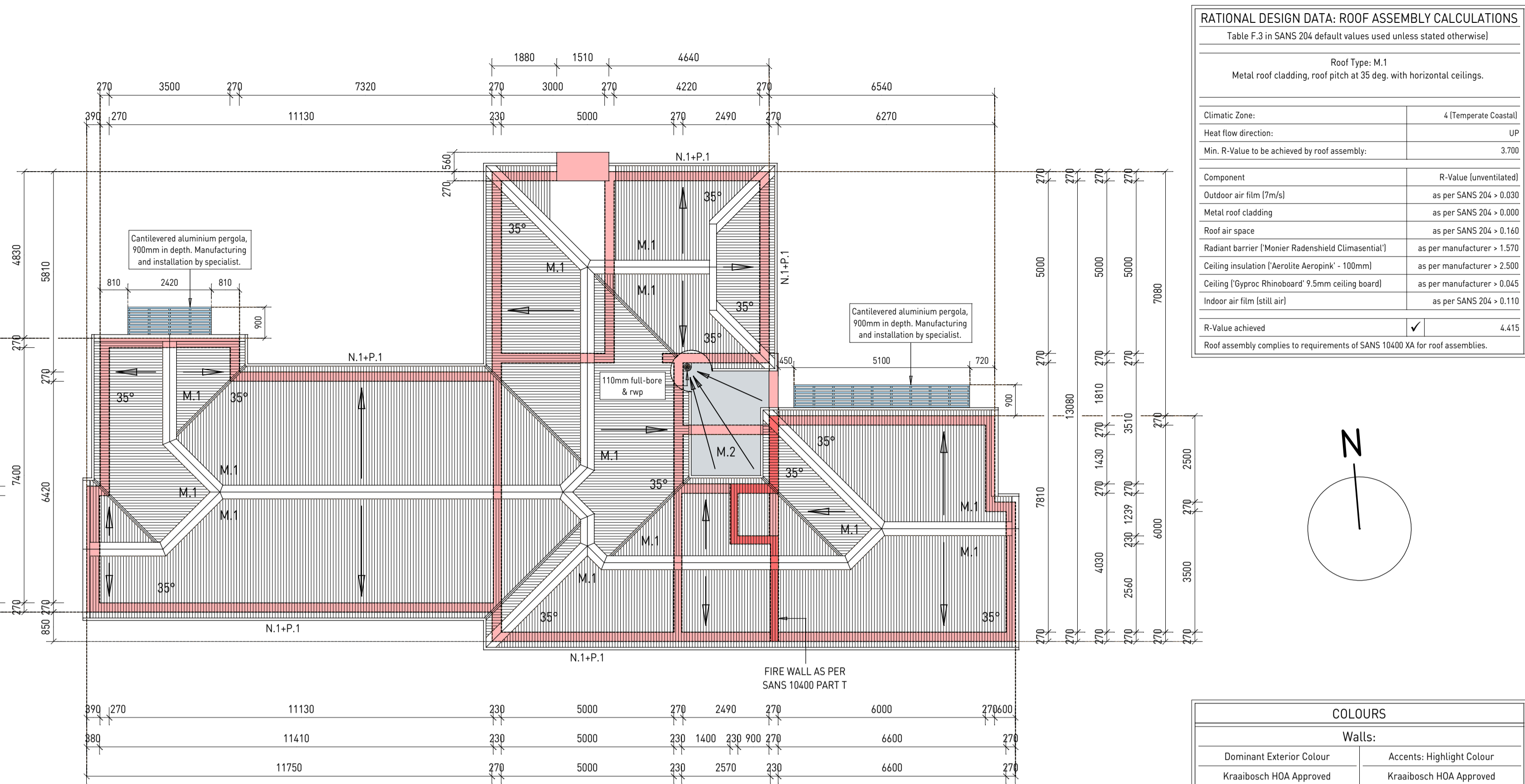
Registered LP gas installer to be used for gas system installation installation signed off by installer with a valid certificate.

**Notes - Bireplaces/Braais + Chimneys and Flues:**

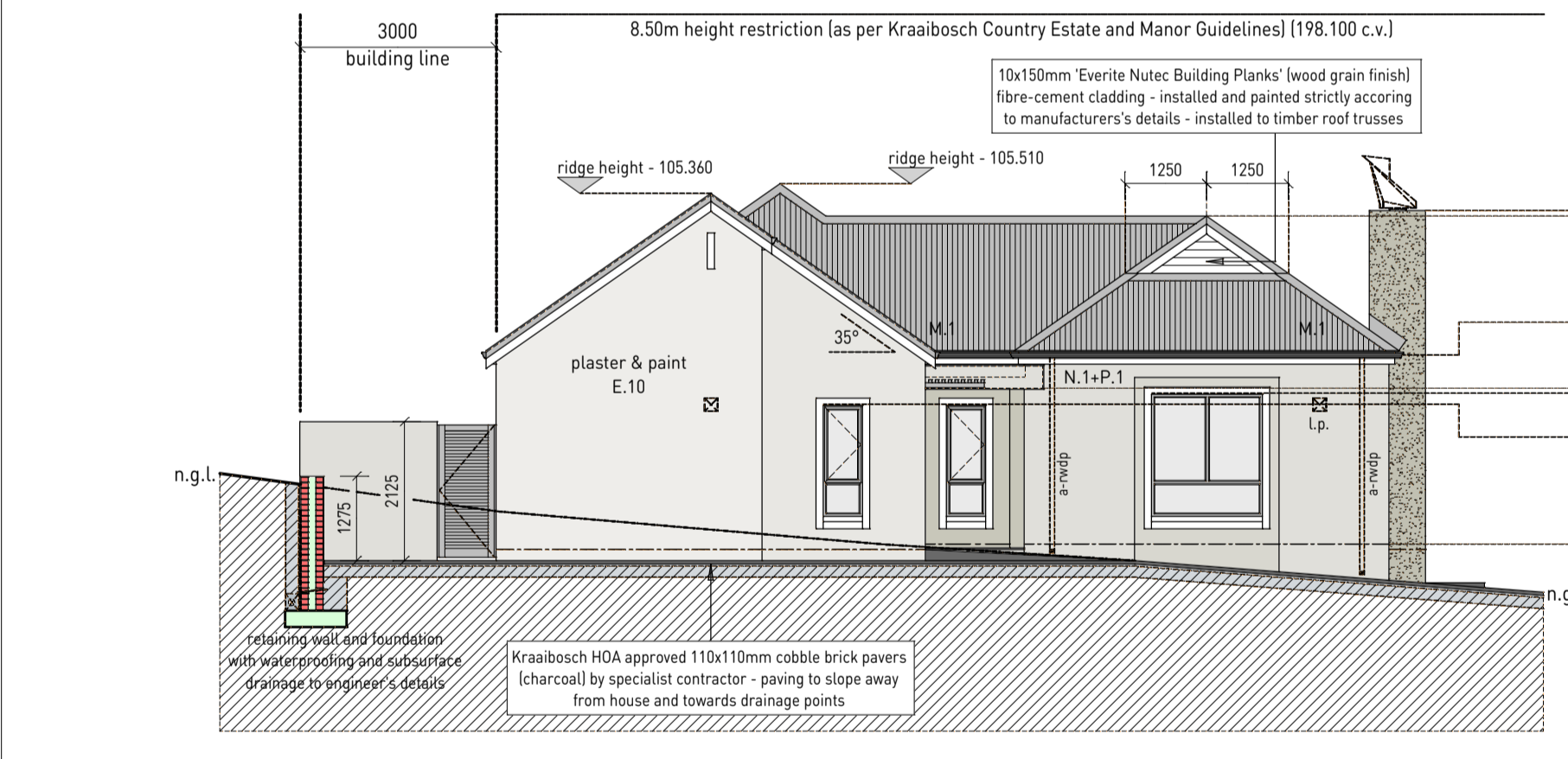
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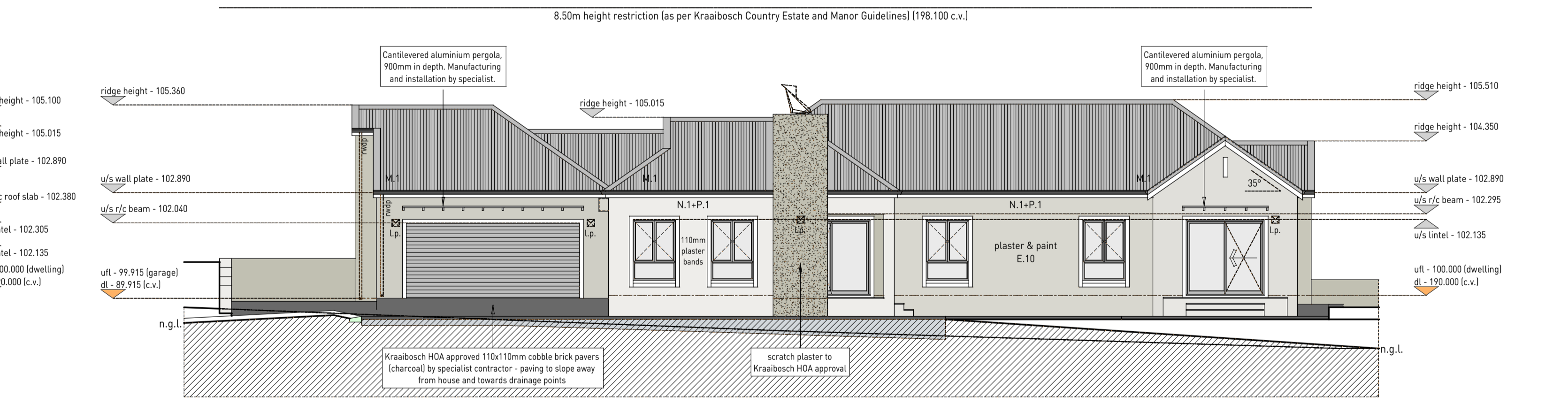
- Chimney heights to comply to SANS 10400 Part V.



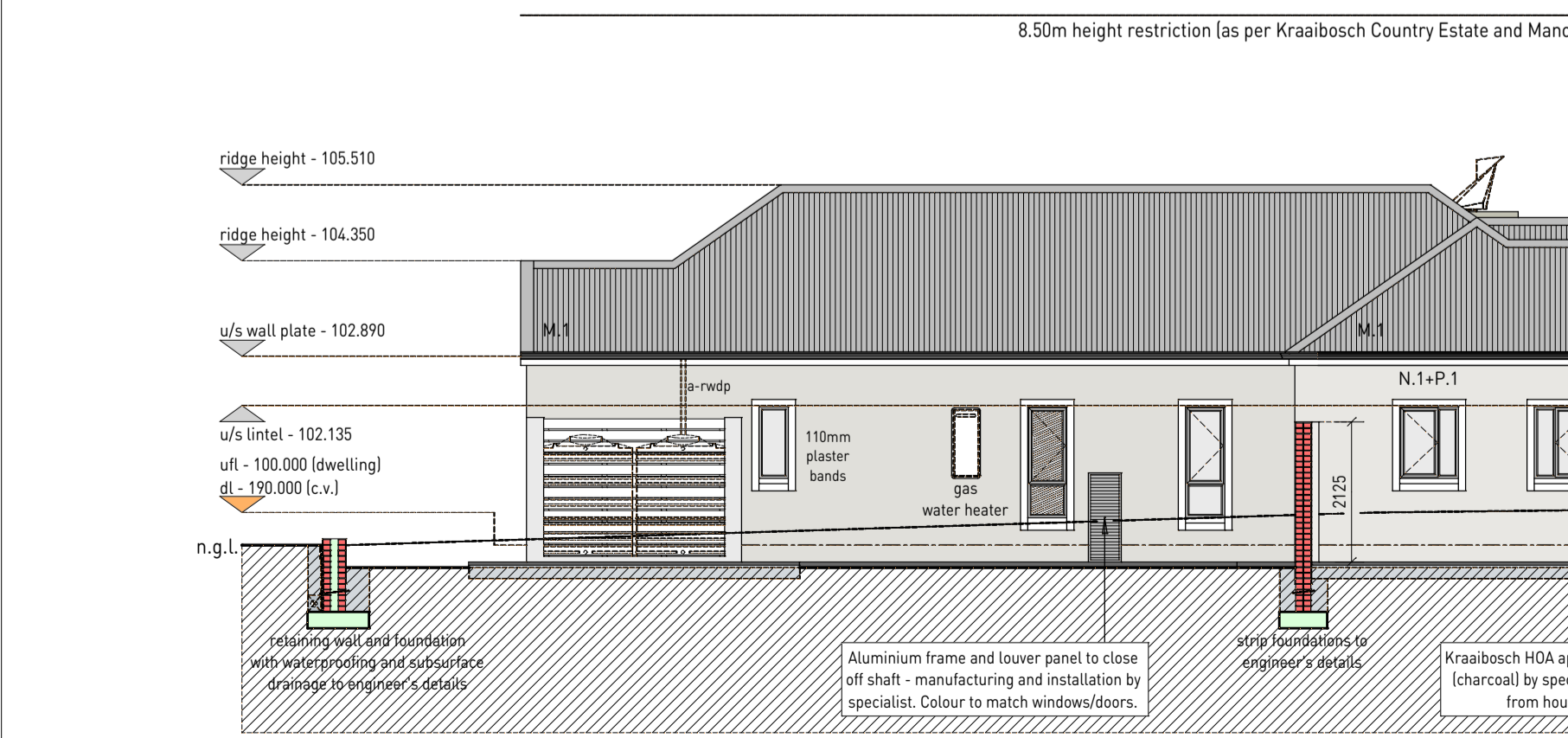
**1 ROOF PLAN** SCALE - 1 : 100



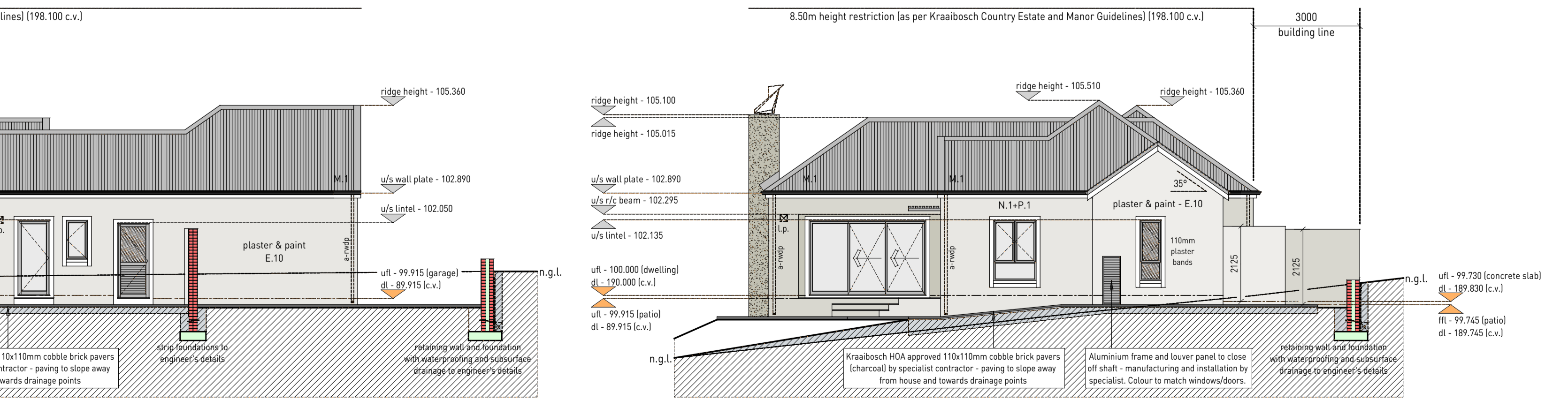
**2 East Elevation** SCALE - 1 : 100



**3 North Elevation** SCALE - 1 : 100



**4 South Elevation** SCALE - 1 : 100



**5 West Elevation** SCALE - 1 : 100

**RATIONAL DESIGN DATA: ROOF ASSEMBLY CALCULATIONS**

Table F.3 in SANS 204 default values used unless stated otherwise)

Roof Type: M.1	Metal roof cladding, roof pitch at 35 deg. with horizontal ceilings.
Climatic Zone:	4 (Temperate Coastal)
Heat flow direction:	UP
Min. R-Value to be achieved by roof assembly:	3.700
Component	R-Value (unventilated)
Outdoor air film (7m/s)	as per SANS 204 - 0.020
Metal roof cladding	as per SANS 204 - 0.020
Roof air space	as per SANS 204 - 0.160
Radiant barrier ('Monier RaderShield C/Imasental')	as per manufacturer x 1.570
Ceiling insulation ('Aerolite Aeropink' - 100mm)	as per manufacturer x 2.500
Ceiling ('Gyproc Rhinoboard' 9.5mm ceiling board)	as per manufacturer x 0.045
Indoor air film (still air)	as per SANS 204 - 0.110
R-Value achieved	4.415
Roof assembly complies to requirements of SANS 10400 XA for roof assemblies.	

**COLOURS**

Walls:	
Dominant Exterior Colour	Accents: Highlight Colour
Kraaibosch HOA Approved	Kraaibosch HOA Approved
Roof:	Fascias:
'Rain Cloud' - COLORPLUS®	White
Gutters & Downpipes:	
Charcoal	
Windows + Doors:	
Aluminium	
'Creacor' Matt Stone Grey	
Paving	
Charcoal (HOA approved 110x110mm cobble pavers)	

**HOA & Municipal Submission**

Design/Drawn: H.J. Kruger

SAOP Reg. No. 00139

SAOP Reg. Address

Date: January 2021

Scale: 1:100

Reference Number: 2101.03

Drawing Number: 2101.03A.1

**Revisions:**

Revision No.	Description

GN1 - All work to be carried out in accordance with the National Building Regulations and requirements of the local authority. All material to be S.A.S.S. approved.

GN2 - Contractors to verify and check all levels, dimensions & heights on the site and familiarise themselves with the full nature and extent of the contract before tendering or commencing work.

GN3 - Contractor to keep a full set of drawings on site at all times. Indicated/given dimensions to take preference above scaled dimensions.

GN4 - Contractor is responsible for the correct setting out of the building on site with particular reference to boundaries and building lines. The use of a land surveyor is encouraged.

GN5 - All 270mm walls are regarded as cavity walls and the necessary dpc to be installed around all windows, doors and openings. Prips in wall above dpc. Line on outside to be left open at 100mm U.C. reproduce without prior written consent.

Project Title / Details:  
PROPOSED NEW DWELLING (H4)  
For Client:  
MRS. L. LEWIS  
Street Number:  
ERF 2462, 31 MODDERKLOOF CLOSE, KRAAIBOSCH MANOR, GEORGE

**ARCHIDRAFT**

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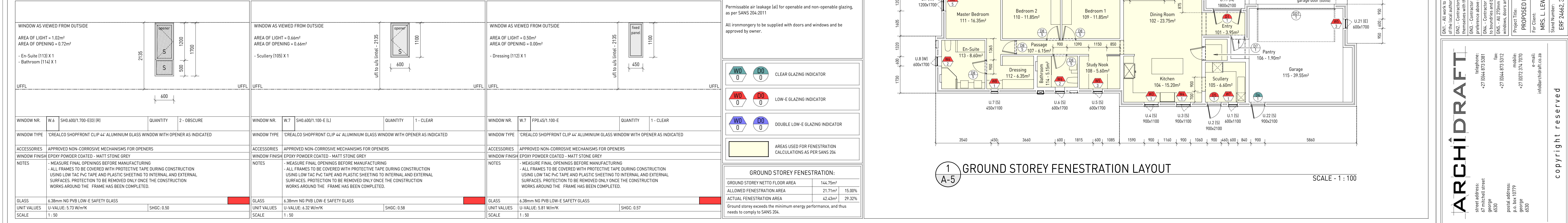
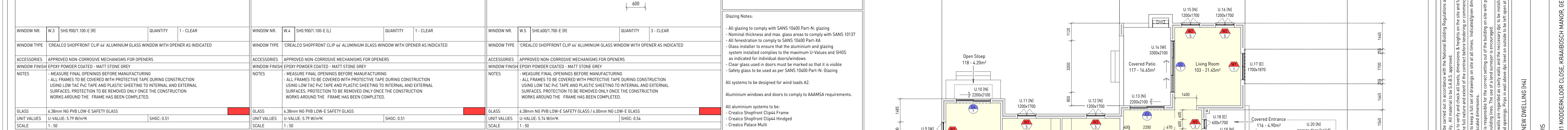
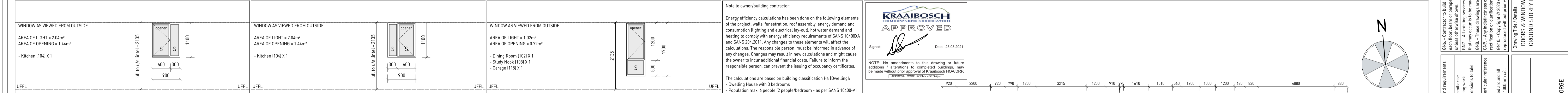
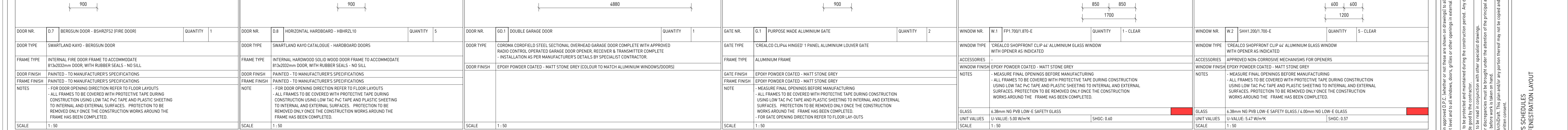
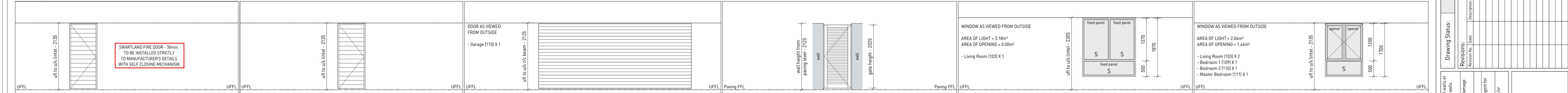
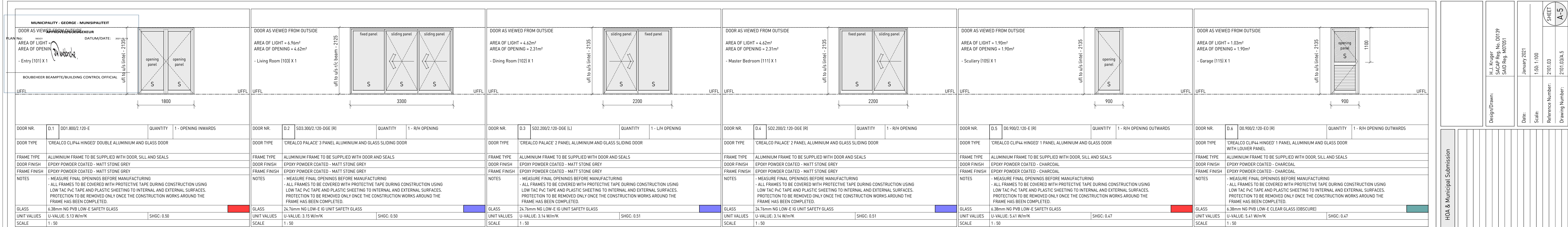
e-mail: info@archidraft.co.za

street address: 67 Mitchell Street George 6530

postal address: p.o. box 10779 george 6530

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**HOA & Municipal Submission**

**Revisions:**

Revision No.	Description

**Design/Drawn:** H.L. King  
 SACAP Reg. No. 00139  
 SAID Reg. M07051

**Date:** January 2021  
**Scale:** 1:50-1:100  
**Reference Number:** 2101.03  
**Drawing Number:** 2101.03A.5

**SHEET**  
**A-5**

**Drawing Status:**

**Revisions:**

Revision No.	Description

**HOA & Municipal Submission**

**Revisions:**

Revision No.	Description

**GROUND STOREY FENESTRATION LAYOUT**

**PROPOSED NEW DWELLING (H4)**

**FOR CLIENT:** MRS. L. LEWIS  
**Street Number:** ERF 24682, 31 MODDERKLOOF CLOSE, KRAAI BOSCH MANOR, GEORGE

**ARCHIDRAFT**

area address: 47 Michiel street 6530  
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 mobile: +27 (0)72 324 2070  
 e-mail: info@archidraft.co.za

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**MUNICIPAL APPROVAL STAMP:**

MUNICIPALITY - GEORGE - MUNISIPALITEIT

APPROVED/GOEDGEKEUR

PLAN No: 06001 DATUM/DATE: 2021-03-18

*[Signature]*

BOUBEHEER BEAMPT/BUILDING CONTROL OFFICIAL

**KRAAIBOSCH**  
HOMEOWNERS ASSOCIATION

**APPROVED**

Signed: *[Signature]* Date: 23.03.2021

NOTE: No amendments to this drawing or future additions / alterations to completed buildings, may be made without prior approval of Kraaibosch HOA/DRP.

APPROVAL CODE: KCBM-#EGW001

**HOT WATER SERVICES:**

1 x 'Rinnai Infinity 32L' (external) gas water heater installed in 'Rinnai Smart Smartbox' recess enclosure'. All components to be installed by specialist contractor according to manufacturer's details (SANS 204:2011 - Energy Efficiency in Buildings) installation to comply to SANS 10254, and system to be maintained according to SANS 10252-1.

Hot water return pipes should be installed so that it conveys hot water in a hot circulation system, between the last terminal water fitting and the water heater.

All exposed pipes to and from hot water cylinders, heat pumps and/or gas water heaters, to be insulated with approved patent pipe insulation material with an R-Value of 1 or better. The installation shall be protected against the effects of weather and sunlight able to withstand the temperatures within the piping. The piping to be insulated includes all flow and return piping, cold water supply piping within 1.00m of the connection to the heating system and pressure relieve piping within 1.00m of the connection to the system. Where possible, lengths of pipes should be minimized.

All pipes to be 'GEBERIT Mepla MultiLayer' for hot and cold water.

Isolation valves to be provided at all important points and junctions. No stop cocks to be used in the hot water reticulation.

Where necessary to run pipe(s) underneath building, it must be sleeved as to facilitate maintenance (if necessary).

Only approved products from the 'JASWIC' acceptance list are to be used.

**SANS 10252-1 WATER LEGEND:**

	pipe carrying cold water		water meter
	pipe carrying hot water		stop cock
	pipe carrying hot water (return)		non-return valve
	pipe carrying mixed (temperature) water		pressure control valve
	pipe crossing (not connecting)		expansion control valve
	lagged pipe (insulation R-Value 1 or higher)		storage water heater (domestic type)
	riser pipe (plan view)		undercounter storage water heater (domestic type)
	dropper pipe (plan view, pipe cross section)		heat pump
	tap (external)		gas water heater
	tap (internal)		
	mixer (single manual controls, single lever)		
	mixer (two manual controls)		
	shower (fixed)		

**SANS 2052-1 ABBREVIATIONS:**

<b>MATERIALS</b>	<b>FIXTURES AND FITTINGS (cont.)</b>
ABS alkyl butal styrene	HR hose reel
CI cast iron	GWH gas water heater
CLPE cross-linked polyethylene	HSTO hot water storage tank
CONC concrete	LCV lever control valve
COP copper	NRV non-return valve
FC fibre cement	PCV pressure control valve
GMS galvanized mild steel	PRV pressure reducing valve
HDPE high density polyethylene	PS pressure switch
LDPE low density polyethylene	PU pump
PF pitch impregnated fibre	RBT registered break tank
RC reinforced concrete	RV reflux valve
SS stainless steel	ST tap (sink)
PVC-u polyvinyl chloride- unplastered	STO cold water storage tank
<b>FIXTURES AND FITTINGS</b>	SWT (taps and showerhead)
BT tap (bath)	UA urinals-automatically controlled flushing device
BTT bidet (taps and spouts)	UM urinals-manually operated flushing device
ET external tap	WBT tap (wash-hand basin)
FE fire extinguisher	WCS water closet (cistern or automatic shut-off flush valve)
FH fire hydrant	WH water heater
FM fire main	WTT tap (wash trough)
FPC fire pump connection	UWH undercounter water heater
FS fire switch	V valve
FV fire valve	

**PIPE SUPPLY KEY**

W.H.B.	15mm ø pipe	BATH	22mm ø pipe
SHOWER	22mm ø pipe	W.C. CISTERN / BIDET	15mm ø pipe
SINK	15mm ø pipe	GARDEN TAPS	15mm ø pipe

**HOT WATER DEMAND FACTORS**

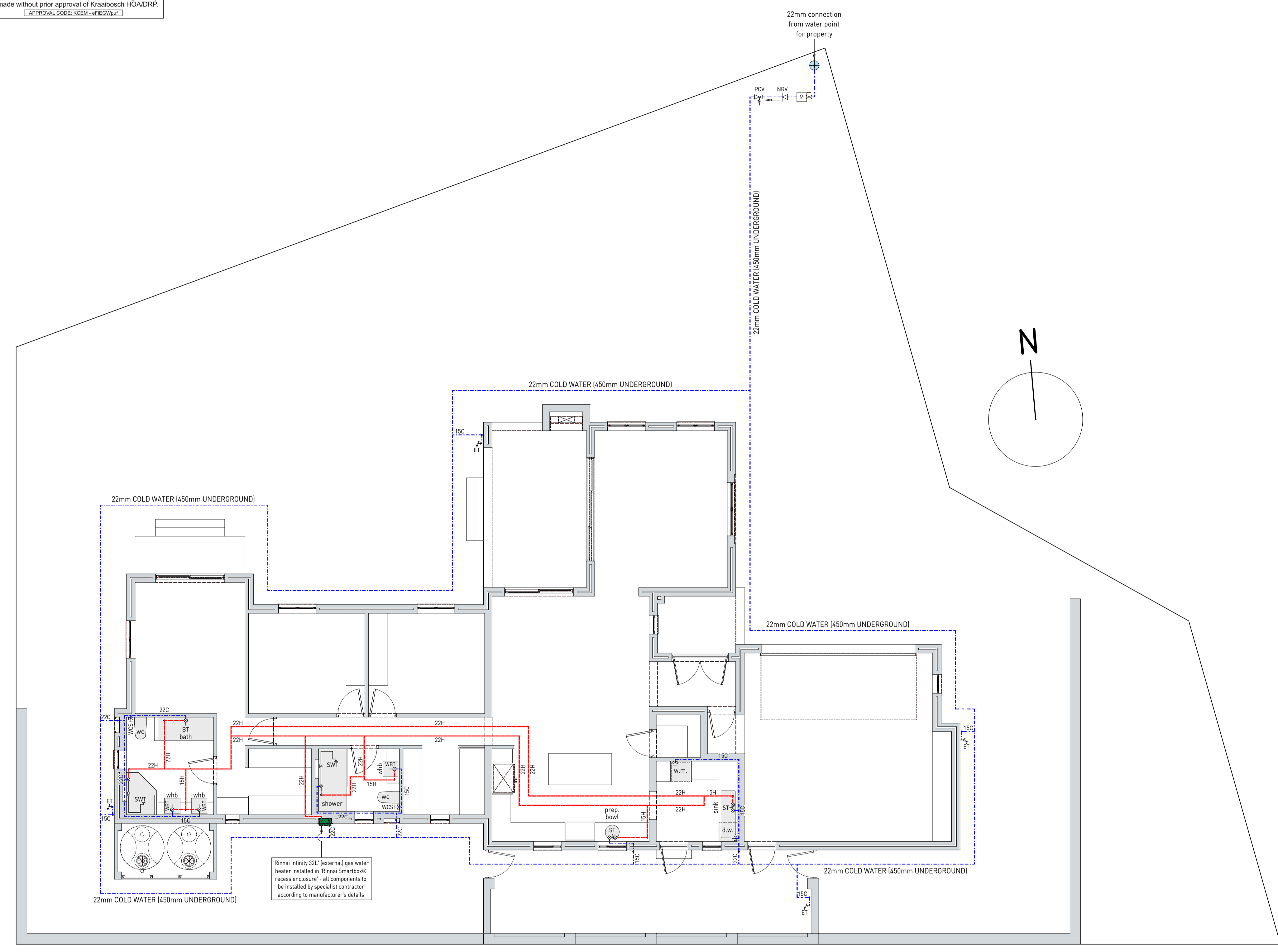
Building Classification: H4 - 2 Persons/Bedroom (SANS 10400 Part A)

3 Bedroom Dwelling - Occupation 6 people (maximum)

Total hot water demand: 140L/capita/day - 840L per day (SANS 10252-1)

Storage volume at 40°C: 50L/capita - 300L total (SANS 10252-1)

1 x 32L 'Rinnai' gas water heater



**1** GROUND STOREY WATER RITICULATION LAYOUT

A-7

SCALE - 1 : 75

**HOA & Municipal Submission**

Drawing Status:

Revisions:

Revised No.	Date	Description

Design/Drawn: H. J. Kruger  
SACAP Reg. No. D0139  
SAID Reg. M07051

Date: February 2021  
Scale: 1:75  
Reference Number: 2101.01  
Drawing Number: 2101.01/A.7

**Revisions:**

Revised No.	Date	Description

**GROUND STOREY WATER RITICULATION LAYOUT**

**WATER RITICULATION LEGEND**

GN1 - Contractor to build in accordance with the National Building Regulations and requirements of the local authority. All material to be S.A.B.S. approved.

GN2 - Contractors to verify and check all levels, dimensions & heights on the site and familiarise themselves with the full nature and extent of the contract before entering or commencing work.

GN3 - Contractor to keep a full set of drawings on site at all times. Indicated dimensions to take preference above scaled dimensions.

GN4 - Contractors to ensure correct siting out of the building on site with particular reference to boundary and building setbacks. The use of a hand level to be used to ensure the correct siting of the building on site.

GN5 - All 22mm walls are required as early walls, and the necessary dpc to be installed around all windows, doors and openings. Pipes in wall above dpc level on outside to be left open at 1000mm c/c.

Project Title:  
**PROPOSED NEW DWELLING (H4)**

For Client:  
MRS. L. LEWIS

Stand Number:  
ERF 24642, 31 MODDERKLOOF CLOSE, KRAAIBOSCH MANOR, GEORGE

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