

EX.

O/B

GROUND STOREY

SITE AREA ZONING -PERMITTED F. A. R (0,35) AREAS PERMITTED COVERAGE (30%) EXISTING F. A. R EX. DEMOLISHED 38,38m² EXISTING COVERAGE DEMOLISHED F. A. R PROPOSED DEMOLISHED COVERAGE GROUND STOREY  $41.50 \,\mathrm{m}^2$ PROPOSED F.A.R FIRST STOREY 38.10m<sup>2</sup> PROPOSED COVERAGE 12.00m<sup>2</sup> TOTAL F.A.R AWNING 1.35m² TOTAL COVERAGE

PATIO

FIRE SAFETY

# OWNER'S RESPONSIBILITY

The owner shall ensure sufficient fire extinguishers are installed, maintained and serviced in accordance with SANS 10105 and that adequate means of access, and equipment for detecting, fighting, controlling and extinguishing a fire is maintained to fulfill the purpose it is intended for.

The owner shall ensure that any escape route is not rendered less effective or its obstructed in any way that hinders or prevents the building occupants to escape from the building in the case of a fire or other emergency.

### FIRE STABILITY

Fire stability of structural elements or components shall be on accordance with SANS 10177-2.

## TIMBER CONSTRUCTION

The fire resistance of timber construction shall be in accordance with SANS 10082.

### SPACE HEATING

Space heating systems including a flue, flue pipe or chimney shall be designed, constructed and installed to operate safely and vent smoke or noxious gases to the atmosphere.

### FLUE PIPES

A flue pipe shall not be installed in a manner that will cause a fire hazard to ad jacent materials or adversely affect any services.

### CHIMNEYS

A chimney of non-combustible material, shall not be erected in a manner that will cause a fire hazard to adjacent materials or adversely affect any services.

Non-combustible materials shall not be built within 200mm of the inside of

Chimney walls shall be solid masonry units of not less than 190mm.

A chimney of solid masonry units less than 190mm thick shall be provided with a flue lining made of material which will withstand any action of the fire gases, be able to resist the temperatures to which it will be subjected, and shall extend the full height of the chimney.

### HEARTHS & FIREPLACES

Solid fuel burning fireplaces shall have a hearth of non-combustible material that shall extend not less than 500mm in front of the grate/fire basket and not less than 300mm beyond each side of such grate/fire basket.

## No combustible material shall be built into a hearth.

Solid fuel slow combustion stove \$ flue to be installed to according to requirements of manufacturer.

# OWNER RESPONSIBILITIES

# APPROVED DOCUMENTATION

A certified copy of the approved plans and associated documentation shall be retained on the site on which the building is to be erected until a Certificate of Occupancy has been issued by the local authority.

# GENERAL COMPLIANCE

The owner shall not use or allow the building to be used for a purpose other than that contained in the plans, drawings and documentation approved by the local authority.

The owner shall not deviate to any material degree from an approval granted by the local authority unless first having obtained written approval for such proposed deviation.

# NOTICES

Prior to commencing with any building or demolition work the owner shall submit a notice to the local authority stating the date on which the work shall commence. Such notice shall be given to the local authority at least four days, in the case of the erection of the building, and at least ten days in the case of demolition work, before the work commences.

Notice shall also be given to the local authority of the date, at least two working days from the date of receipt by it, on which:

- the fire installation will be connected to any communication pipe; - trenches or excavations will be ready for inspection prior to the placement of concrete for any foundations;
- the drainage installation will be ready for inspection and testing; and - the building will be completed.

The owner shall, at least seven days prior to the commencement of any excavation, notify the local authority in writing of the intention to excavate.

# BUILDING MATERIALS

Only materials suitable for their intended purpose shall be used in the erection of the building and such materials comply and incorporated into the building in accordance with the requirements of SANS 10400.

All timberwork used in the erection of the building shall be treated against termite and wood borer attack and fungal decay in accordance with the requirements of SANS 10005 and bear a product certification mark of a body certified by the SA National Accreditation System.

# CONSTRUCTION

2 070m²

SR 1800

 $724,50 \,\mathrm{m}^2$ 

621,00m<sup>2</sup>

145, 20m²

187,10m²

38,80m²

38,80m²

79,60m²

 $92,95m^2$ 

186,00m²

 $241,25m^2$ 

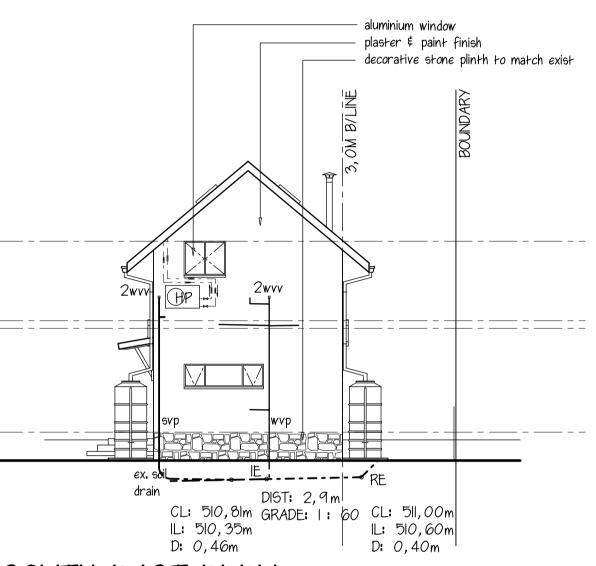
Construction shall not compromise the design intent of any design solution.

Precautions shall be taken during all stages of the construction to ensure that the structural system is not damaged or distorted during the course of erection of the building.

# DEMOLITION WORK

The owner shall ensure that during the course of or after demolition of any building it is not left in a condition that is dangerous to the public or any adjoining property.

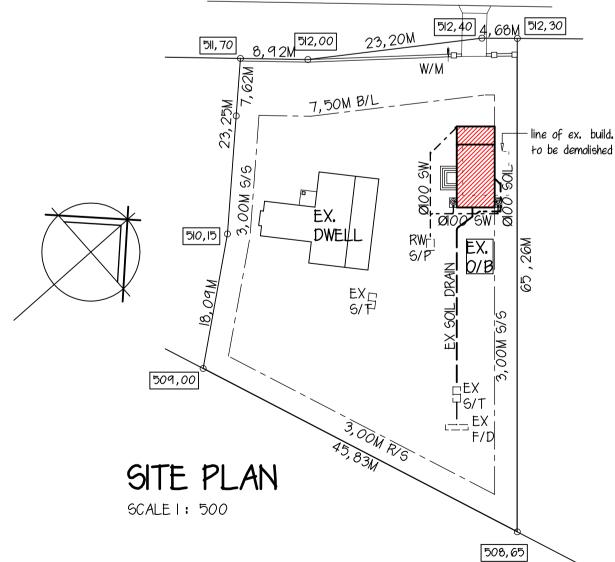




# SOUTH EAST ELEV.

# KLOOF FALLS ROAD

(12,50M WIDE)



ON-SITE SEWAGE DISPOSAL

The development proposal is located within an existing established urban context underlain by a Minor Aquifer and the site is dependant on greywater disposal via the ground.

The extent of the development conforms with the requirements contained in the General Authorisation 21(g) of the National Water Act with water for drinking purposes provided via a municipal supply.

The development impact \$ risk to health is therefore considered to be of no greater impact than already existent or as envisaged by the Act.

EATHEKWINI MUNICIPALITY OW21050110 APPLICATION NUMBER

SHEET 1/3 ONLINE-COP

**BUILDING APPLICATION** APPROVED in terms Section 7 of the National Building Regulations and Building Standards Act No. 103/1977

2021-06-28

This plan is approved on the basis of the information shown herein. Attention is drawn to the attached documentation & that this approval shall lapse ONE year after the above approval date, unless the erection of the building in terms of NBR Act 103/1977 is commenced

Climatic Zone as per SANS 204 Occupancy as per SANS 10400-A20

PROPOSED ANLLARY UNIT FOR B \$ T WLSON AT 49 KLOOF FALLS ROAD ON REM OF ERF 1397 OF KLOOF

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НЗ

**MLSON** 

2020-41 sheet l

NBR ASSESSMENT APPLICATION scale date drawn 08 FEB. 2021 1/100 \$ 1/500 M. KEUTER

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## SITE OPERATIONS

### PROTECTION OF THE PUBLIC

The owner shall, where demolition or erection of the building may cause a danger or serious inconvenience to the public, erect a fence, hoarding or barricade to prevent the public from entering the site and to protect them from activities on the site and retain and maintain such in a safe condition and remove it only when the work has been completed.

Work associated with the erection or demolition on the site shall be confined to within the boundaries of the site and not encroach upon or over any street or public place abutting the site, except with the prior written approval of the local authority.

### GEOTECHNICAL SITE & ENVIRONMENTAL CONDITIONS

Where the owner is aware of, or becomes aware of conditions of contamination on the site, that the land is potentially unstable or is underlain by subsoils that may impair the stability of the building or part thereof or pose a threat to the safety of the occupants, the owner shall appoint an approved competent person to undertake an appropriate geotechnical investigation in accordance with SANS 10400-B and SANS 10400-H, as relevant.

### BOUNDARY PEGS

The owner shall ensure that the boundary pegs or beacons of the site are correct and that the erection of any buildings is confined within the boundaries of the site. Where necessary, the owner shall engage a professional land surveyor to locate and/or establish the boundary pegs or beacons and issue to the owner a signed certificate confirming such in accordance with the surveyor general diagram.

### CONTROL OF DUST & NOISE

The owner shall take precautions to limit to a reasonable degree the amount of dust arising from the building or demolition work or surroundings thereof.

No machine, machinery, engine, apparatus, tool or contrivance for use in any building, demolition or excavation work that may reasonably disturb or interfere with the amenity of the neighbourhood shall be used:

- (i) on a Public Holiday or Sunday;
- (ii) before 06:00 or after 17:00 on any Saturday; and (iii) before 06:00 or after 18:00 on any other day.

# WASTE MATERIAL & CLEANING ON SITE

The owner shall ensure that excessive rubble, rubbish, other debris or combustible waste material is not accumulated on the site and any surplus material shall be removed from the site on completion.

## BUILDER'S SHED

Any temporary builder's shed shall not be positioned on the site in a position that creates a nuisance or inconvenience to any adjoining site, shall be maintained in good order, and be removed where it is no longer required for the purpose for which it was erected.

### SANITARY FACILITIES

The owner shall ensure that sanitary facilities be provided at the rate of not less than one sanitary facility for every thirty ( or part thereof ) of the personnel employed or in connection with the building or demolition work.

The sanitary facilities shall be provided prior to the commencement of the erection or demolition of the building, be sited as not to be offensive and at all times maintained in a clean and hygienic condition, and unless they are of a permanent nature, be removed immediately once the building work has been completed.

# **EARTHWORKS**

# GROUND LEVEL

Natural ground line depicted is an approximate position only \$ no claim can be made for any discrepancies or variances on site.

# PREPARATION OF SITE

Before any foundation is laid the area to be covered by the building shall be properly cleared of vegetable matter, tree stumps, timber and other cellulose material, debris or refuse and any material contaminated with faecal matter.

Where the site is, or becomes waterlogged or saturated, or evidence of underground water is detected, subsoil drainage, designed by, and under the supervision of an approved competent person, shall be provided to direct such water away from the site to a stormwater drain or to dispose of it in a safe manner. Such approved manner shall be by written approval of the local authority.

# TREE REMOVAL

The effects of the removal of trees on clay sites shall be considered prior to their removal and erection of the building, to ensure their removal does not induce large swelling movements as a result of the soil profile wetting up due to the recovery of any depressed water table over time.

# EXCAVATIONS

# GENERAL STABILITY REQUIREMENTS

The owner shall ensure adequate precautionary measures are taken and stability of any property or services is not impaired by excavations on the site.

# Open excavations shall be maintained in a safe condition.

The slope of cuttings in permanent excavations less than 3.0m in height shall not be steeper than 1: 2 except in the case of sound, intact rock and not closer than 1.2m to any building.

Surface water shall be diverted away and prevented from running down the cut and causing erosion, and not be allowed to pond within 3. Om of the toe of the

The sides of excavations shall comply with the requirements of the Construction Regulations issued in terms of the Occupational Health and Safety Act. 1993.

Excavations greater than 3. Om deep or requiring blasting shall be designed by, and be under the supervision of a competent person.

Temporary excavations shall be in accordance with the requirements of SANS 10400-G.

### ROOFS - TIMBER CONSTRUCTION - TILES

Roof assembly and any ceiling assembly shall be designed by, and be under inspection of a competent person in accordance with SANS 1400-B. taking account of any actions that can be reasonably be expected to occur, upliftment due to wind, durability and prevention of rainwater or any other surface water

Timber roof and ceiling assemblies shall be constructed using softwood timber compliant with SANS 1782 or laminated pine compliant with SANS 1460. treated in accordance with SANS 10005 and SANS 1288 with cut areas thoroughly brushed with 2 coats of the same class as the original preservative.

Nail-plated softwood timber trusses shall be designed by and under the inspection of a competent person in accordance with requirements of SANS 1900 and SANS 10243, as applicable, with roof and ceiling assemblies constructed in accordance with requirements of SANS 2001-CT2.

Trusses, rafters and purlin beams shall be supported on 38x76mm treated, softwood wall plates or supported by galvanised metal hangers twice bolted to walls with corrosion resistant expanding masonry anchors not less than 10x75mm in length, with timber fixed by 32mm clout nails in each hole or with Ø12mm diameter bolts in holes provided.

### WALLS

### MASONRY WALLS

Walls shall be designed by, and under the supervision of a competent person in accordance with SANS 10400-B, taking account of the actions reasonably expected to occur, required weathertightness, and foundations supporting the wall, and shall have a fire resistance appropriate to its use, and where required, be non-combustible, in accordance with SANS 10400-T. Construction shall, where appropriate, be in accordance with SANS 2001-CMI.

Metal wall ties, brickforce and rod reinforcement shall be galvanised in accordance with SANS 935 or SANS 121, as appropriate. In tidal and splash zones wall ties, brickforce and rod reinforcement shall be made of stainless steel.

Infill panel walls in framed building shall be, as appropriate, be anchored and fixed in accordance with SANS 10400-K or as designed by the competent person.

### CONTROL JOINTS

Control and articulation joints in walls shall be designed by, and under the inspection of a competent person in accordance with SANS 10400-B and SANS 10400-K.

Control joints shall be designed and constructed to resist the penetration of rain to the interior of the building.

Lintels shall be provided over all openings and be designed by, and under the inspection of a competent person in accordance with SANS 10400-B and SANS 10400-K.

Roof trusses, rafters, and similar elements shall be fixed to walls by means of type A anchors, two strands of 2.4mm CIA galvanised steel wire, to a depth and at suitable positions appropriate for the roof covering in accordance with SANS 1400-K.

# RISING DAMP

A damp-proof course, 375um thick compliant with SANS 248. SANS 298 or SANS 952-1, shall be installed across the full width of the wall at a level of the top of a concrete slab resting on the ground, with transverse joints overlapped to a minimum of 150mm and at junctions and corners to a distance equal to the full thickness of the wall or leaf.

# WATERPROOFING & DPC

Waterproofing \$ DPC, including to doors \$ windows, shall be provided \$ installed i. t. o SANS 10021

# FLOORS: ON-GROUND

Slabs supported on the ground shall be designed by, and under the inspection of a competent person in accordance with SANS 10400-B and SANS 10109-1 (where applicable), taking account of the intended purpose of the slab and actions that can reasonably be expected to occur thereon.

The floor of any laundry, kitchen, shower-room, bathroom or room containing a toilet pan or urinal shall be constructed of concrete in accordance with the requirements of SANS 2001-CCI or SANS 2001-CC2 where no impervious material is to be applied to the floor, or an impervious material, fit for its intended purpose, shall be laid on top of, or bonded to, the flooring system.

Slabs supported on the ground shall have polyolefin underfloor membrane of thickness not less than 250 µm, turned up around the perimeter of the floor by at least the thickness of the slab and have overlap joints of the not less than 200mm.

Fill beneath slabs on the ground and around foundations shall be in accordance with the requirements of the SANS 10400-J, designed and inspected by a competent person.

# SOIL POISONING

The building shall be protected from subterranean termite activity by the effective application of soil insecticides to the site in accordance with SANS 10124.

# FOUNDATIONS

# FOUNDATION DESIGN

Foundations, suitable to the site conditions, shall be designed by, and be under the supervision of a competent person in accordance with SABS 10400-B, taking account of all the information contained in the geotechnical site investigation as well as the layout and topography of the site, differential movements, location of services and erosion, and requirements in Annex A of SANS 10400-H (where applicable).

A competent person shall design and inspect the installation of sub-surface drains required to prevent the passage of moisture into the interior of the building.

Foundations shall be constructed in accordance with the requirements of SANS 2001-CM2.

### ROOF COVERING

The roof covering and waterproofing system, or part thereof, shall resist over it's design life, temperature changes, effects of UV radiation, condensation, chemical attack, growth of bacteria / fungi etc., puncturing and penetration and movement in accordance with the requirements of SANS 10400-L and where installed by a specialist shall be provided with a five-year written guarantee for watertightness.

Tiled roof coverings shall be installed in accordance with the manufacturer's instructions.

An undertile membrane shall be laid loose so that water can drain between rafters

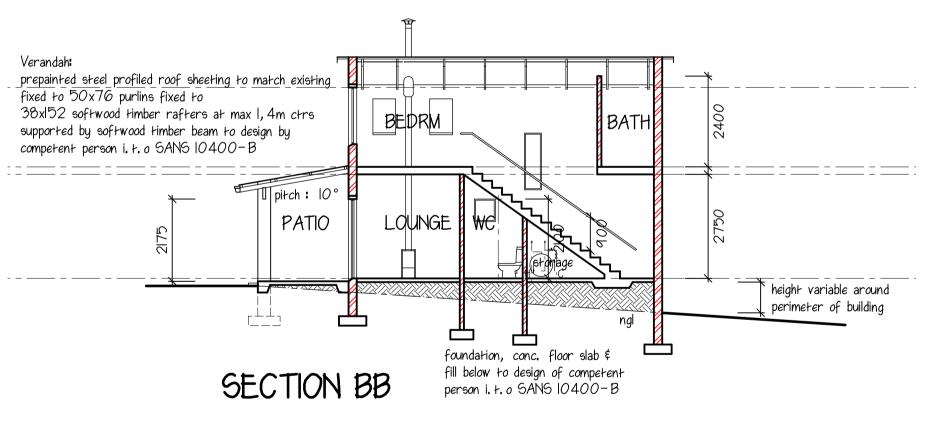
and be installed in accordance with the manufacturer's instructions. Penetrations through roofs (plumbing pipes, electrical conduits, air conditioning

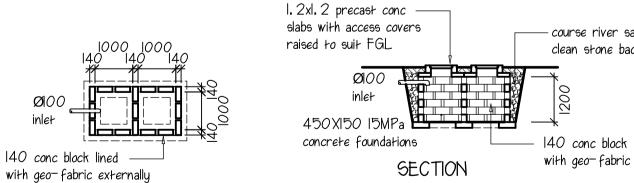
## pipes, etc.), shall be kept at least 200 mm away from all vertical surfaces and shall not penetrate through roofs in clusters.

### WATERPROOFING Waterproofing system shall only be dressed onto a flat surface. Proper coving and dressing of waterproofing against penetrating services is to be ensured by mechanically clamping waterproofing dressed up around protruding pipes and then counter flashed over the mechanical clamp.

Waterproofing turn-ups against masonry shall be counter flashed with the same membrane and cut into walls to depth of at least 40mm.

## with SANS 10400-T. prepainted steel profiled roof sheeting to match existing fixed to 50x76 purlins over reflective foil radiant barrier over 70 flexible polyester fibre blanket between 50x76 counter battens to support 12,7mm gypsum plasterboard ceiling with 20x20 painted timber quadrants between nail-plated timber trusses to design of competent person i. t. o SANS 10400-B 50L HW storage tank fixed roof light (non-openable) DRESS ^s supporte¢ reinf. suspended conc. slab \$ LOUNGE stairway to design of competent person i. t. o SANS 10400-B T: 280mm R: ~170mm





# 2,0m3 RAINWATER SOAKAWAY DETAIL (Adjust as per size on plan)

PLAN

Rainwater soakaways shall be sized to provide Im of volume per 40m of roofed or paved area.

Soakaways shall be spaced a minimum distance of 3,0m from buildings and site boundaries.

The overflow from rainwater harvesting/storage tanks shall discharge into the on—site rainwater disposal system.

STORMWATER DISPOSAL CALCULATIONS Roofed area = 72.90m<sup>2</sup> Volume reg'  $d = 72,90/40 = 1,80 \text{ m}^3$ Storage provide =  $2KI @ 60\% = 1.2m^3$ Soakaway req'  $d = 0,6m^3$ Proposed Volume = 1,50m³ soakaway

38x38mm battens shall be nailed with 75mm wire nails and 38x50mmbattens with 90mm wire nails to every rafter and spaced in accordance with manufacturer's specifications.

Square cut butt- jointed battens and purlins shall be centrally placed over rafters or spliced in accordance with the requirements of SANS 10400-L. Joints arranged so that not more than one batten in three is jointed on any one rafter or truss.

### **CEILINGS**

Softwood pine brandering shall be compliant with SANS 1783-4 treated in accordance with SANS 10005, and installed in accordance with SANS 2001-CT2.

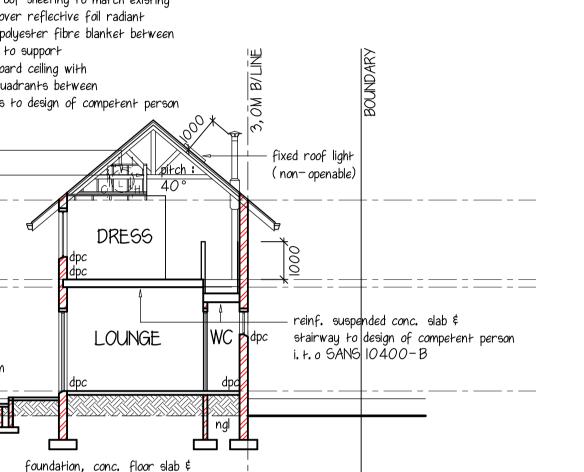
38x38mm pine brandering shall be securely spiked to supporting timbers with 75mm wire nails at centres not exceeding 450mm. Cross brandering shall be cut in between the longitudinal brandering and skew nailed to the same using 75mm at centres not exceeding 900mm.

## RAINWATER GOODS

Rainwater goods shall be installed according to manufacturer/suppliers

## FIRE RESISTANCE & COMBUSTIBILITY

No timber or other combustible material that forms part of the roof or ceiling assembly shall pass through a separating element of a building in accordance



fill below to design of competent

person i. t. o SANS 10400-B

# -course river sand \$ clean stone backfill 140 conc block lined with geo-fabric externally

# STORMWATER

Control and disposal of stormwater from earthworks, building or paving shall be designed by, and be under the supervision of a competent person to discharge into an on-site stormwater disposal system.

stormwater to drain away from buildings under the action of gravity and not accumulate against our in close proximity to the external walls.

Gutters shall be so designed and installed to prevent the penetration of stormwater

## COMPETENT PERSON RESPONSIBILITIES

### COMPETENT PERSONS

The appointed competent person(s) shall undertake the necessary design and inspections of the work appointed for and furnish the owner with a Certificate of Completion therefore on completion of the work.

### STRUCTURAL SYSTEMS

Details associated with the structural system and in accordance with Reg. A4 of the National Building Regulations and Building Standards Act, No. 103 of 1977 (NBR\$BS), shall be submitted to the local authority at least three days prior to the commencement of the erection thereof, where permitted by the local authority.

### STRUCTURAL DESIGN

The design working life of the structural system and non-accessible components shall be not less than 30 years, and repairable or replaceable components and materials, such as claddings, roof materials, exterior trims, and integrated components, such as windows and doors, shall be 15 years.

Representative permanent, imposed and seismic loads and impact sources applied to the structure and structural elements shall be in accordance with the requirements of the relevant part of SANS 10160 and the resistance of the structure under the effects of all actions shall be assessed in terms of the limit—state criteria or allowable stress criteria in accordance with the requirements of the relevant part of SANS 10160, or those specified in SANS 10100, SANS 10162, SANS 10163 or SANS 10164 while the response of the structure and structural elements to representative actions and impacts shall be in accordance with SANS 10400-B.

Wind load shall be determined in accordance with the relevant part of SANS 10160 and SANS 10400-B.

Testing to demonstrate that specific requirements are complied with shall be in accordance with Annex B of SANS 10400-B.

The appointed competent person shall on completion inspect the building and furnish the owner and local authority with a Certificate of Completion.

### BARRIERS / BALUSTRADING

Barriers shall be designed to resist the corrosivity of the environment within which to be erected.

Owner is responsible for inspecting barriers at regular intervals and restore or replace any element, connection, or anchorage where a possible loss of effectiveness or structural integrity is shown.

Barriers shall not have sharp projections or edges that may cause in jury or tear

Barriers shall be clearly visible from a distance of 7,5m. Where barrier elements are thinner than 20mm signs shall be displayed at regular intervals to ensure they are visible from 7,5m.

Flexible elements of a barrier shall be maintained under tension to ensure the correct spacing requirements are maintained.

Barrier stability shall comply with SANS 10400-B while glazing installed

in any barrier shall be compliant with SANS 10137 and comply with SANS 10400-N. Barriers to protect against falling shall be not less than I. Om in height and shall

STAIRWAYS

Stairways including any wall, screen, railing or balustrade thereto, shall be designed by, and under inspection of a competent person in accordance with SANS 10400-B and SANS 10400-T taking account of any actions which can reasonably be expected to occur.

The dimensional variation of risers and goings of the treads in any one flight shall be not more than 6mm minimum dimensions being for:

- Treads: 260mm

– Risers: ~ 185mm - Landing length: not less than 900mm

not allow the passage of a \$100mm ball.

# BARRIERS

A barrier serving a flight of steps shall be not less than I. Om high and not contain openings above the pitch line that permits the passage of a \$100mm ball.

A handrail shall be securely fixed to any barrier at a height of not less than 850mm and not more than I. Om measured vertically from the pitch line to the upper surface of the handrail and not obstruct the movement of a hand moving along it.

Earthworks, paving and areas around the building shall be graded to allow

Stormwater systems and structures shall be designed not to cause erosion, minimise siltation and facilitate maintenance.

Access for cleaning purposes shall be provided at intervals not more than 40m.

to the interior of the building.

ONLINE-COPY SHEET <u>2/3</u> EATHEKWINI MUNICIPALITY

OW21050110 APPLICATION NUMBER

BUILDING APPLICATION

APPROVED in terms Section 7 of the National Building Regulations and Building Standards Act No. 103/1977 2021-06-28

LOCAL AUTHORITY This plan is approved on the basis of the information shown herein. Attention is drawn to the attached documentation & that this approva shall lapse ONE year after the above approval date, unless the erection of the building in terms of NBR Act 103/1977 is commenced

ON REM OF ERF 1397 OF KLOOF

PROPOSED ANILLARY UNIT

AT 49 KLOOF FALLS ROAD

Climatic Zone as per SANS 204

Occupancy as per SANS 10400-A20

FOR B & T WLSON

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sheet 2

НЗ

**WLSON** 2020-41

NBR ASSESSMENT APPLICATION scale date drawn 1/100 \$ 1/500 08 FEB. 2021 M. KEUTER

**EDRAWING STUDIO** 

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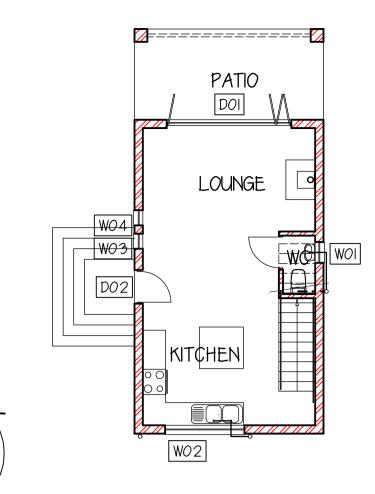
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EE - GROUND STOREY

NET FLOOR AREAS GROUND STOREY 35.6m² FIRST STOREY  $32.0 \,\mathrm{m}^2$ 

### GLAZING

Any glazing system exposed to the natural elements and forms part of the external envelope of the building shall be compliant with SANS 10400-N \$ SANS 613.

Float glass to comply with SANS 50572-1/EN 572,1 \$ 572,2 and toughened and laminated safety glass with SANS 1263-1.

### INSTALLATION

The glazing in external walls, internal walls, partitions, shower doors, and cupboard doors within 800 mm of floor level shall be in accordance with SANS 10400-N, installed in a frame in accordance with either SANS 2001-CGI or SANS 10137.

## Silicone sealant shall have a tensile strength of at least IMPa.

No changes are to be effected to the size, thickness or type of glazing material without prior approval of the Architectural Professional, as any such changes may affect the compliance with SANS 10400-N and the NBR's.

WINDOW & DOOR SCHEDULE & ELEVATIONS MUST BE READ IN CONJUNCTION WITH THE FLOOR PLAN \$ PART XA CALCULATION REPORT.

# TRANSPARENT GLAZING

Transparent diazing where it is not likely to be apparent to, or suspected by, any person approach it, shall be provided with markings that render it apparent to such person.

Glazing installer shall issue the owner with a certificate on completion of the glazing installation that the glazing material indicated has been installed in the positions indicated and that such installation is in accordance the requirements contained in SANS 10137.

# SAFETY GLAZING

All safety glazing performance shall be compliant with SANS 1263-1 with individual panes of safety glazing material permanently marked by the installer such that the markings are visible after installation and the installer shall issue that owner with a certificate on completion of the installation.

# BARRIERS

Glazing material in barriers (balustrades) shall be toughened safety glass subject to impact and line loads determined in accordance with SANS 10160.

window/door

number

frame

frame

type

material

no. of sides

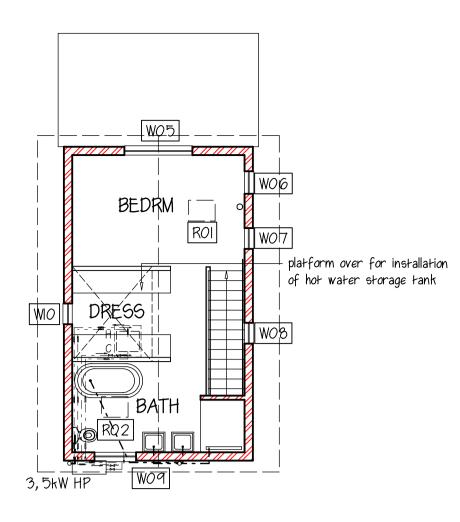
glazing pane

glazing pane

min. Hhickness

supported

material



EE - FIRST STOREY

# ENERGY USAGE

## HOT WATER SUPPLY

Solar water heating systems shall comply with SANS 1307 and SANS 10400, electric storage water heating systems with SANS 10254

subject to the water installation requirements in accordance with SANS 10252-1

Thermal insulation, installed in accordance with the manufacturer's instructions, with a minimum R-value of I.O shall be used to clad all exposed pipes to and from hot water cylinders and central heating systems with an internal diameter of less than 80mm.

A foam or rubber compressible strip or a fibrous seal (or similar) shall be fitted to each edge of an external door, window opening to restrict air leakage.

A draught protection device shall be fitted to the bottom edge of each door leaf.

The building's orientation and shading, and services that use energy or control the use of energy shall be in accordance with the requirements of with SANS 10400-XA.

# EXTERNAL WALLS

External non-cavity double skin masonry walls of the habitable portions of the building fabric shall be plastered internally, or rendered externally.

shall have a thickness of not less than 140mm and be plastered internally and rendered externally.

# ROOF INSULATION

W02

ALUMINIUM

SIDE HUNG

MONOLITHIC

ALL SIDES

1.5m²

ANNEALED GLASS

ALUMINUM

SIDE HUNG

MONOLITHIC

ALL SIDES

4mm

1.5m²

ANNEALED GLASS

sealed, forms a continuous barrier with ceilings, walls, bulkheads or floors and does not affect the safe or effective operation of any services, installation, equipment or fittings.

WO3\$4

ALUMINUM

SIDE HUNG

MONOLITHIC

ALL SIDES

4mm

,5m²

ANNEALED GLASS

W05

ALUMINIUM

SIDE HUNG

MONOLITHIC

ALL SIDES

4mm

.5m²

ANNEALED GLAGS

W06

ALUMINIUM

SIDE HUNG

MONOLITHIC

ALL SIDES

4mm

 $1.5 \text{m}^2$ 

ANNEALED GLAGS

subject to the water installation requirements in accordance with SANS 10252-1

Air source heat pumps shall comply with SANS 151 and SANS 1352

# ENERGY USAGE \$ BUILDING ENVELOPE

SANS 204 while the external walls, fenestration, roof assembly construction, in-slab heating where installed, and hot water systems shall be in accordance

External single leaf masonry walls of the habitable portions of the building fabric

Roof insulation in compliance with SANS 428 shall be installed to the manufacturer's instructions so that it abuts or overlaps adjoining insulation, or is

## PLUMBING / DRAINAGE WORK

All plumbing work shall be undertaken only by a trained plumber or person under the adequate control of a trained plumber or approved competent person.

The appointed trained plumber shall furnish the owner upon completion and testing of the plumbing work with a Certificate of Compliance for the plumbing installation.

Drainage installation shall be designed, installed and tested in accordance with SANS 10400-P taking account of the design hydraulic loads, that no nuisance or danger to health will be caused, drains being capable of sustaining actions subject to and protected from dramage, sanitary fixtures being easily accessible, and access for inspection, cleaning and maintenance being provided.

### MATERIAL, PIPES, FITTING \$ JOINTS

Joints between pipes or pipes and fittings shall remain watertight under normal working conditions or where differential movement between pipes and building or ground might occur, and withstand internal water pressure of 50kPa and external water pressure of 30kPa without leaking.

## SANITARY FIXTURES

Sanitary fixtures shall be impermeable, non-corrosive material with a smooth and readily cleanable surface and discharge into a soil pipe or waste pipe via a trap.

Water supply outlet to any waste fixture shall not be less than 20mm above the flood-level rim of the fixture.

### TOILET PANS

Toilet pan shall comply with SANS 497, be securely fixed, have a separate flushing device, and connect to a soil pipe through an accessible joint.

The toilet pan connector shall be compliant with SANS 4633, not of the concertina type.

## SEPTIC TANKS / FRENCH DRAINS

Septic tanks shall be designed and constructed to be impervious to liquid and not become a source of nuisance or danger to health or the structural integrity of adjacent buildings, be sited to allow a ready means of access for clearing of the tank, and vented by open vent pipe at the building.

Septic tank, min. 1,5m, shall be sized in accordance with requirements of Annex C of SANS 10400-P, be covered with a layer of soil at least 150mm thick, be provided with a means of access for the purpose of emptying and cleaning, and connected to a french drain.

Septic tank shall be constructed, where of masonry in accordance with the requirements of SANS 2001-CC2/CMI/EMI, or where prefabricated in accordance with SANS 52566-1

French drain shall be constructed and located to not cause the pollution of any spring, steam, well or other source of water, and not adversely affect the foundations of adjacent buildings.

French drain shall be sized in accordance with the in-situ percolation test and requirements of SANS 10400-P.

Pipes discharging into french drains shall be open jointed or perforated.

The top of the infiltrative surfaces shall be protected by means of either a polyester filter fabric or a 30mm to 100mm thick layer of fine gravel or coarse sand. A top soil layer between 100mm and 150mm shall be placed on top of the drain over an impermeable covering.

An inspection pipe shall be installed in a french drain in accordance with SANS 10400-P.

# ARTIFICIAL LIGHTING

Artificial lightning installations shall be in accordance with requirements of SANS 10114-1 and, where applicable, exceed the minimum requirements of the Occupational Health and Safety Act, No. 85 of 1993.

Lighting to be provided LED or CFL type lamps and luminaires throughout to satisfy the requirements of SANS 10400-XA.

Recessed luminaires \$ their ancillary equipment shall be installed in a manner to minimize temperature rise and prevent the risk of fire, and ensure the necessary cooling air movement through or around the luminaire is not impaired by the thermal insulation or other material.

# ROOF ASSEMBLIES

W07

ALUMINIUM

SIDE HUNG

MONOLITHIC

ALL SIDES

4mm

 $1.5 \text{m}^2$ 

ANNEALED GLAGS

Metal roof sheeting fixed to metal purlins, metal rafters or metal battens shall have a thermal break installed between the metal roof sheeting and support member of material with an R-value not less than 0.2.

> lintel height 900 above 1st floor floor level

WOB

ALUMINIUM

SIDE HUNG

TOUGHENED

ALL SIDES

5mm

 $3,0m^2$ 

SAFETY GLASS

## SINGLE STACK DRAINAGE SYSTEM

Any supplementary vent stack, where required, shall be cross-connected at each storey with the discharge stack

Discharge stack shall continue upwards to form a stack vent and shall have a bend at the foot of the stack with a centre line radius not less than 300mm.

Waste fixture traps shall be P-traps with min 75mm water seal or resealing

The centre line of opposing waste and soil branch pipes shall not intersect the centre line of discharge stack within a vertical distance of 100 mm of each other.

Fixture branch of a sanitary fixture shall be connected separately to the discharge stack in a residential class of building and soil and waste discharge branches in an office class building shall connect separately to the discharge stack.

Internal diameter of a fixture branch serving a washbasin with a nominal outlet Ø32mm shall be not less than 40mm.

Maximum nominal internal diameter of a discharge stack shall be 100mm, waste discharge pipe 40mm, and soil discharge pipe 100mm.

Minimum nominal internal diameter of a drain shall be 100mm and not have a gradient less than 1: 60.

Trap vents shall be provided for the protection of waste water seals where required in accordance with SANS 10400-P.

Ventilating pipe shall be provided for a main and branch drain at a point

more than 6. Om from the head of such drain.

Ventilating pipe shall be provided for a waste pipe or waste branch pipe longer

The nominal internal diameter of a ventilating pipe to a drain or branch carrying a hydraulic load not more than 50 fixture units shall be 40mm.

The nominal internal diameter of a stack vent shall be not less than discharge stack to which connected, or nominal internal diameter of 40mm where stub stack requires a stack vent or a two storey high discharge stack serves a maximum of two groups of sanitary fixtures.

- Installation of a discharge pipe or ventilating pipe shall:
- Not be deformed in any way that would restrict flow,
- Be so installed that no bend forms an acute angle, - Be safely supported at intervals along its length without restraining thermal
- Be provided with a means of access for internal cleaning.
- Ducts provided for discharge pipes shall be readily accessible for cleaning and

provide access to all junctions, bend and cleaning eyes. Discharge and ventilating pipes shall be protected against vehicular impact.

Two way vent valves shall only be located in the open air.

# ACCESS TO DRAINAGE INSTALLATION

Access to the interior of any pipe shall be provided in accordance with SANS 10400-P for the purposes of inspection, testing and internal cleaning. Access to any drain or discharge pipe that passes through a room used as a kitchen,

pantry, or for the preparation, handling, storage or sale of food, access to

the drain or pipe for cleaning purposes shall be provided outside such room.

except waste pipes serving a waste fixture in which room.

Rodding eyes shall be joined to the drain in the direction of flow at an angle of not more than 45° and adequately supported up to ground level, marked and protected.

Access to drain or discharge pipe shall have a screwed or bolted air tight cover.

Access shall be provided to any part of a drainage installation that passes under a building outside of, and as near as possible to the building at each point of entry to, or exit from under the building with no access from within the building.

Any lid covering an opening giving access to a drainage installation shall remain

terms of SANS 10400-P.

<del>|</del> - ------

WIO.

ALUMINIUM

SIDE HUNG

MONOLITHIC

ALL SIDES

4mm

1,5m²

ANNEALED GLASS

W09

ALUMINIUM

SIDE HUNG

TOUGHENED

ALL SIDES

りmmご

 $3,0m^2$ 

SAFETY GLASS

effective under all working conditions and remain fit for its intended purpose in

Sanitary fixture traps in compliance with SANS 1321 shall comply with the requirements contained in SANS 10400-P.

# **GULLIES**

Not less than one gully with overflow and removable cover shall be provided within a drainage installation with such overflow level of the dish not less than 75mm above the level of the grate, 150mm above the surrounding ground or 50mm above any permanent surrounding paving.

The surface level of the water in the gully shall be not more than 500mm below the overflow level of the gully and the water seal maintained by at least one waste pipe discharging therein.

The floor draining towards an accessible trapped waste water floor drain shall have a gradient of not less than 1: 200, be non-absorbant and of corrosion-resistant material, have a removable grating, and its water seal maintained by a tap situated above it or a waste discharge pipe discharging directly into the gully above the level of the water seal.

A grease trap shall be provided where the waste water discharge from a sink or other fixture discharging to a french drain.

Any gully shall be situated outside of the building, or in any place permanently open to the external air.

## INSTALLATION OF DRAINS

Drains shall be installed in accordance with the requirements of SANS 1200-DB, 1200 LB and 1200 LD., be protected against transmission of loads to it, be provided with suitable means of cleaning from outside the building, supported throughout its length without restricting thermal movement, any supports securely fixed to the building, with any junction, bend or point of access readily accessible.

Installations shall be laid in a straight line between changes in direction or gradient, with flexible joints and gradient suitable for the hydraulic load to be carried, and where gradients exceed 1: 5 provided with anchor blocks.

Minimum 300mm soil cover or 500mm wide precast or cast in-situ concrete slabs over 100mm soil cushion shall be provided over drains.

Branch drains shall be connected by means of junction fitting, not saddle fitting, at included angle not exceeding 45°.

## GREASE INTERCEPTOR

A grease interceptor shall be provided where grease, fat or vegetable oil could cause an obstruction to the flow in any drain.

## The drainage installation shall only be put into use after the installation has been inspected, tested and passed by the local authority.

Any drain, discharge pipe or ventilating pipe shall be installed to withstand the test pressures contained in SANS 10400-P and such tests shall be carried out in the presence of the building control officer, or other duly authorised officer of the local authority.

# ELECTRICAL INSTALLATION

All electrical work shall be undertaken only by a registered electrical contractor or person under the adequate control of a registered electrical contractor in accordance with SANS 10142.

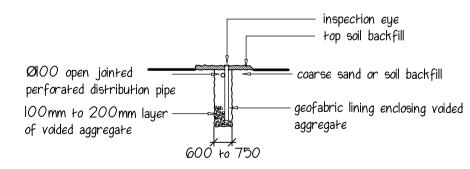
The appointed registered electrical contractor shall upon completion and testing of the electrical work furnish the owner with a Certificate of Compliance for the electrical installation.

# ON-SITE SEWER DISPOSAL CALCULATIONS

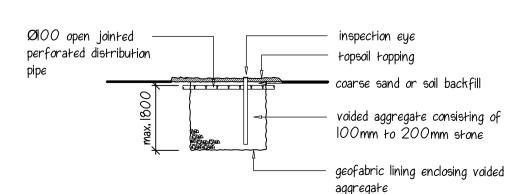
I Bedroom dwelling with 3ur cleaning frequency Minimum septic tank provided = 1.5m3

Design application rate =  $108L/m^2$ Sewage flow +15% contingencies = 863L/d

French drain size provided =  $2,63 \times 0,7 \times 1,2$ Calculations i. t. o 4. 8. 10 of SANS 10400-P



# CROSS SECTION



LONGITUDINAL SECTION

TYPICAL FRENCH DRAIN DETAIL

Climatic Zone as per SANS 204

Occupancy as per SANS 10400-A20

PROPOSED ANILLARY UNIT FOR B & T WLSON AT 49 KLOOF FALLS ROAD ON REM OF ERF 1397 OF KLOOF

5

Н3

SHEET 3/3 ONLINE-COPY

EATHEKWINI MUNICIPALITY

OW21050110

APPLICATION NUMBER

BUILDING APPLICATION

APPROVED in terms Section 7 of the National Building

Regulations and Building Standards Act No. 103/1977

LOCAL AUTHORITY

This plan is approved on the basis of the information shown herein. Attention is drawn to the attached documentation & that this approva

shall lapse ONE year after the above approval date, unless the

erection of the building in terms of NBR Act 103/1977 is commenced

2021-06-28



# MLSON

2020-41 sheet 3 NBR ASSESSMENT APPLICATION scale date drawn 1/100 \$ 1/500 08 FEB. 2021 M. KEUTER

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WNDOW SCHEDULE

 $3,0m^2$ 

DOI

ALUMINIUM

SLIDE/FOLDING

SAFETY GLASS

TOUGHENED

ALL SIDES