NOTE: ALL CONCRETE & STEEL WORK TO STRUCTURAL ENGINEERS DESIGN AND DETAIL

BUILDING INFORMATION:

Building Classification:	**H4**
Design Population:	**2 Persons per Bedroom**
	3 Bedrooms = Max 6 Persons
Climatic Zone:	**Zone 4**
Building Orientation:	**East West**
Building Envelope:	**Double Storey Dwelling**

BUILDING COMPONENTS CALCULATIONS & DETAIL IN RELATION TO SANS 10400 - XA:2011 & SANS 204:

1. EXTERNAL WALLS:

SPECIFICATION

- **230mm wide External masonry cavity walls, with 50mm cavity, constructed with Corobrik® 14MPa nominal compressive strength CoroMaxi 90 NFX loadbearing perforated plaster bricks, size 222 x 90 x 114mm , manufactur in accordance with SANS 227:2007, laid in stretcherbond course and bedded and jointed in 10mm thick Class II mortar joints. Provide galvanised steel butterfly wall ties reinforcement @ 4 ties per 1 sqm spacing ratio.**

SANS 10400 XA:2011 REQUIREMENTS

- The specified 230mm External masonry cavity walls do comply with SANS 10400 XA:2011 requirements. External masonry cavity walling systems exceeds the minimum required R-value of 0.35 . Please refer to SANS 10400 XA:2011 paragraph 4.4.3.2 (a)

2. ROOF MATERIALS & ASSEMBLY DETAILS:

R VALUE REQUIRED FOR CLIMATE ZONE 4 = 3.7m/s.K/W

ROOFING MATERIALS SPECIFIED	R-Value
Safintra Corrugated S-profile Galvanised Metal Roof Sheeting on SA Pine Timber Purlins and Roof Trusses	0.3 m/s.K/W
Gypsum Ceiling 6.4mm	0.05 m/s.K/W
Sisalation 410	0.83 m/s.K/W
135mm Thick Isotherm Ceiling Insulation	3.14 m/s.K/W
TOTAL R-VALUE OF SPECIFIED ROOF ASSEMBLY	**4.02** m/s.K/W

The specified Roof Assembly & Roofing Materials do comply with SANS 10400 XA:2011 requirements as the R-Value of 3.71 m.s/K/W exceeds the minimum required R-value for climatic zone 4 of 3.7 m.s/K/W.

3. FENESTRATIONS DETAILS:

SANS 10400- XA:2011 paragraph 4.4.4.2 states that "Buildings with a fenestration area to nett floor area per storey that exceeds 15% do not meet the minimum energy performance requirements and shall thus comply with the requirements f fenestration in accordance with SANS 204".

4. FLOOR DETAILS:

SPECIFICATION

- 100mm Mesh reinforced concrete surface bed cast on 25mm Sandblinding with 0.25mm smooth green polyolefin D.P.M. o 150mm layer of Hardcore filling. Surfacebed covered with a 25mm screed and 25mm floor finish. To structural engineers specifications and detailing. No underfloor heating services to be installed. **SANS 10400 XA:2011 REQUIREMENTS**
- **No underfloor heating services to be installed thus the floor component complies with SANS 10400 XA:2011 requirements, paragraph 4.4.2**

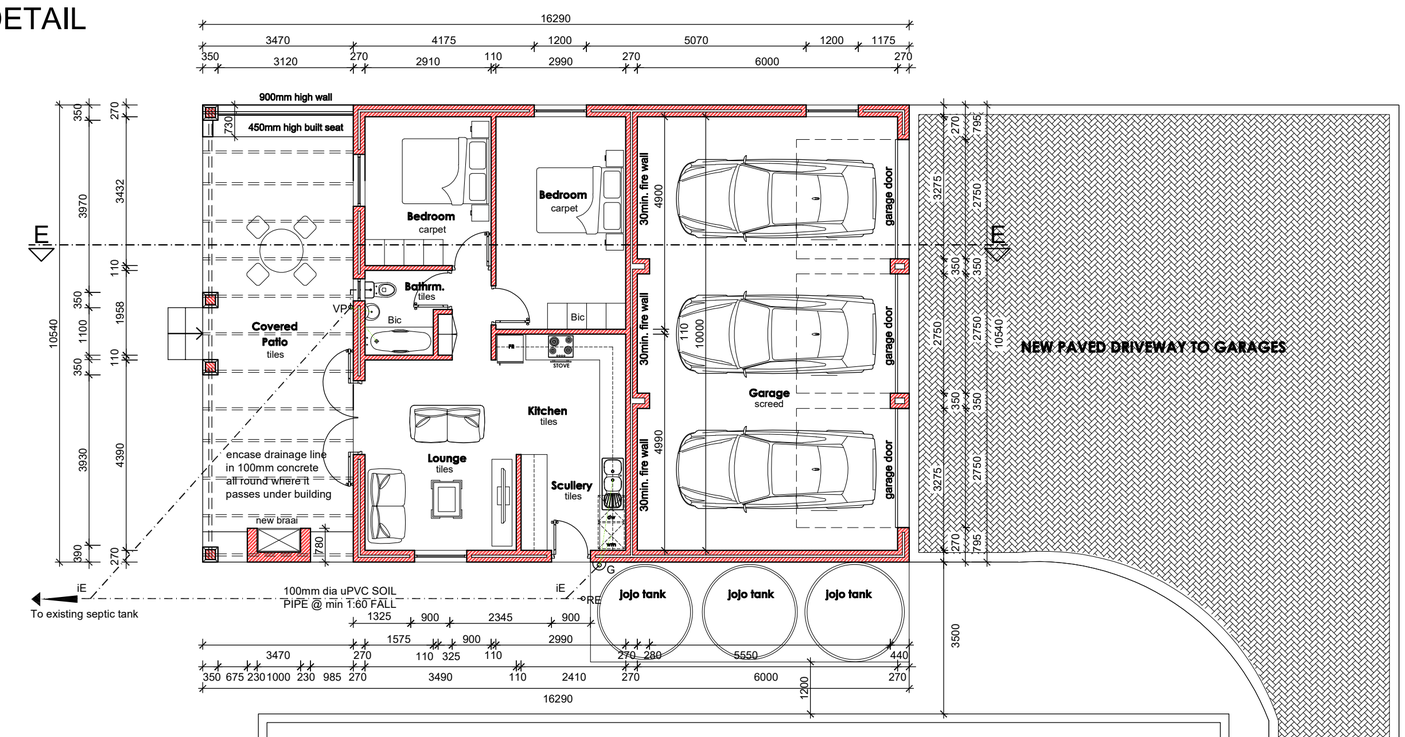
GENERAL NOTES:

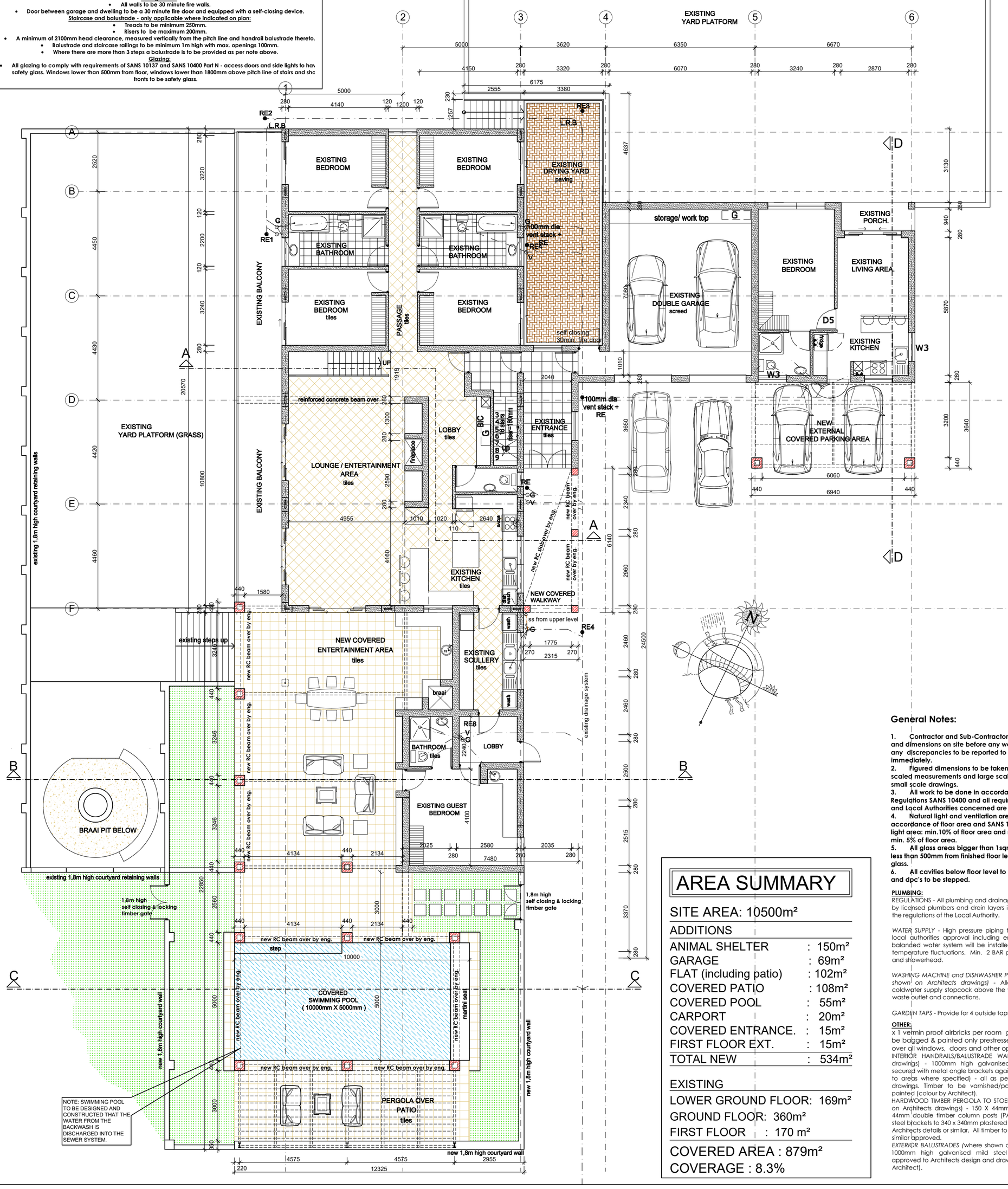
Swimming Pools - only applicable if indicated on plan:
- **Swimming Pool to be designed and constructed that by Specialist**
- **Swimming Pool's water from the backwash is to discharge into the sewer system.**
- **Access control to all swimming pools as indicated on site plan.**

Garage walls:
- **All walls to be 30 minute fire walls.**
- **Door between garage and dwelling to be a 30 minute fire door and equipped with a self-closing device.**

Staircase and balustrade - only applicable where indicated on plan:
- **Treads to be minimum 250mm.**
- **Risers to be maximum 200mm.**
- **A minimum of 2100mm head clearance, measured vertically from the pitch line and handrail balustrade thereto.**
- **Balustrade and staircase railings to be minimum 1m high with max. openings 100mm.**
- **Where there are more than 3 steps a balustrade is to be provided as per note above.**

Glazing:
- **All glazing to comply with requirements of SANS 10137 and SANS 10400 Part N - access doors and side lights to hav safety glass. Windows lower than 500mm from floor, windows lower than 1800mm above pitch line of stairs and sho fronts to be safety glass.**





AREA SUMMARY

SITE AREA: 10500m²

ADDITIONS	
ANIMAL SHELTER	: 150m²
GARAGE	: 69m²
FLAT (including patio)	: 102m²
COVERED PATIO	: 108m²
COVERED POOL	: 55m²
CARPORT	: 20m²
COVERED ENTRANCE.	: 15m²
FIRST FLOOR EXT.	: 15m²
TOTAL NEW	: 534m²

EXISTING	
LOWER GROUND FLOOR:	169m²
GROUND FLOOR:	360m²
FIRST FLOOR	: 170 m²

COVERED AREA : 879m²

COVERAGE : 8.3%

General Notes:

1. Contractor and Sub-Contractors to check all levels and dimensions on site before any work is commenced and any discrepancies to be reported to the Architect immediately.
2. Figured dimensions to be taken in preference to scaled measurements and large scale details supercede small scale drawings.
3. All work to be done in accordance National Building Regulations SANS 10400 and all requirements of Municipal and Local Authorities concerned are to be adhered to.
4. Natural light and ventilation area of all openings in accordance of floor area and SANS 10400 Part O natural light area: min.10% of floor area and natural ventilation: min. 5% of floor area.
5. All glass areas bigger than 1sqm and at a height of less than 500mm from finished floor level to be 6mm safety glass.
6. All cavities below floor level to be filled with concrete and dpc's to be stepped.

PLUMBING:
REGULATIONS - All plumbing and drainage to be carried out only by licensed plumbers and drain layers in strict accordance with the regulations of the Local Authority.

WATER SUPPLY - High pressure piping to Engineer's design and local authorities approval including entry point stopcock. A balanded water system will be installed to minimise hot water temperature fluctuations. Min. 2 BAR pressure required for taps and showerhead.

WASHING MACHINE and DISHWASHER POINTS (applicable where shown on Architects drawings) - Allow for 15mm undertile coldwater supply stopcock above the worktop and 32mm PVC waste outlet and connections.

GARDEN TAPS - Provide for 4 outside taps (15mm).

OTHER:
x 1 vermin proof airbricks per room garage internal walls to be bagged & painted only prestressed precast conc. lintels over all windows, doors and other openings where shown.
INTERIOR HANDRAILS/BALUSTRADE WALLS (refer Architects drawings) - 1000mm high galvanised mild steel balustrade secured with metal angle brackets against one side of wall (only to areas where specified) - all as per Architects design and drawings. Timber to be varnished/painted and steel to be painted (colour by Architect).
HARDWOOD TIMBER PERGOLA TO STOEPS/PATIOS (where shown on Architects drawings) - 150 X 44mm rafters (PAR) on 150 x 44mm double timber column posts (PAR) fixed with galv. mild steel brackets to 340 x 340mm plastered brick column bases all to Architects details or similar. All timber to be hardwood Meranti or similar approved.
EXTERIOR BALUSTRADES (where shown on Architects drawings) - 1000mm high galvanised mild steel balustrades or similar approved to Architects design and drawings, painted (colour by Architect).

EXCAVATIONS:
All excavations to comply with part G (SABS 0400) of the National Building Regulations. All excavations as per Structural Engineers specifications and drawings.

FOUNDATIONS:
All foundations to comply with part H (SABS 0400) of the National Building Regulations. Depth of foundations to be determined and approved on site. All foundations and reinforcing as per Structural Engineers specifications and drawings.

FIRST FLOOR CONCRETE SLAB:
Insitu floor slabs to Structural Engineers design and specifications. Finish with 25 mm screed [1 cement : 3 sand] and approved floor finish as indicated on drawings.

FLOORING:
(as on floor finish drawings.)ALL transitions in floor finishes to get "Genesis" or similar approved aluminium straight edge trim as selected by Architect.

WINDOWS: Refer to window schedule. High quality aluminium type as per AGI or similar approved to comply with SABS 1651 code of practice. Sizes as per Architects window schedules.

DOORS: All doors and ironmongery as per Architect's schedules. All timber doors to be painted as per Architects colour schedule. Hardwood timber doors and frames as per Swartland Status range or similar approved.

SITE WORKS:
Paving, planting and water features to common areas around complex as per Landscape Architect's drawings and specifications.

ROOF CONSTRUCTION:
Chromadeck Megaproof roof sheets as per manufacturers specifications on steel purlins as specified by engineer on engineered designed steel trusses & rafters . fixing of all steel members as per engineers design & detail. angle of roof 7° as per sections. Steel trusses to be tied down as per engineers detial. domestic "ogee" seamless aluminium gutters 50x75mm recangular pvc rwdps where req'd.

WALL TILING
As per samples selected by Architect/Client.
BATHROOM /WC /SHOWER - Tiled throughout to1200mm high, except in shower tiling to ceiling height.
KITCHEN - Tiled splash back above worktops surfaces to height of 1600 mm above finished floor level. Splash back behind stove to height of bottom of top cupboards and tiling behind fridge to be taken down to finished floor level. Tile line to be consistent throughout.
NOTE - Plaster and paint above tiling. Allow for tile corners to be mitred and junctions between worktop/basin/bath and tiling to be sealed with an approved fungus-resistant silicone sealant. All grouting to be "TAL" or similar approved anti-fungi grouting.

FLOOR SLABS ON SOLID:
Concrete floors and surface beds to comply with part J (SABS 9499) item JJ2 of the National Building Regulations. Cast 100mm (minimum) thick concrete slabs to all rooms having solid filling under of 1 cement : 3 sand : 6 stone (20mm stone) and float to a level and smooth finish. Filling to be free from vegetable matter thoroughly compacted in layers of 150mm max. to 100% aashto density and covered with layer of 250 micron "Gunplas" USB Green damp proof membrane on 50 mm sand blinding [1:6]. DPC to be effectively sealed to all floors and walls as described elsewhere. Slabs to be laid in one operation. Finish with 25 mm screed [1 cement: 3 sand] and approved floor finish, as indicated on drawings. Reinforcing, where required as per Structural Engineers specification. All reinforcing steel to comply with SABS 0162. Tiling on exterior stoeps (only to selected areas where shown on Architects drawings) to be laid to falls away from building on 75mm concrete slab.

PAINT:
All paint as per "Midas" or similar approved except where specified otherwise. All paint colours as per estates guidelines colour scheme selected by Architect/Client. All paint to be applied strictly in accordance with manufacturer's specifications.
EXTERIOR PLASTER - All external wall surfaces to be painted with "Midas" or similar approved applied strictly in accordance with manufacturer's specifications.
INTERIOR PLASTER - All internal wall surfaces to be painted with one coat plaster primer (PP700) and finished with two coats washable low sheen pure acrylic like "Midas" or similar approved in colour as selected by Architect/Client except where specified otherwise.
VARNISHED INTERIOR TIMBER - Skirtings specified to be varnished to be painted with three coats "Rystix Timber Care" interior coating in suede finish or similar approved. First coat to be applied thinned to manufacturers specifications and finished with two final coats applied undiluted. Colour tint as selected by Architect/Client.
VARNISHED EXTERIOR TIMBER - Exterior timber specified to be varnished to be painted with three coats "Rystix Timber Care" oil-based exterior sealer in suede finish or similar approved. First coat to be applied thinned to manufacturer's specifications and finished with two final coats applied undiluted. Colour tint as selected by Architect/Client.

WALLS:
MASONRY UNITS - standard (222 x 106 x 73mm) cement bricks to SABS.
INTERNAL WALLS - generally, 110mm brick walls except where load bearing walls is required, 220mm brick walls to be constructed (refer drawings). Walls plastered and painted.
EXTERNAL WALLS - 280mm cavity load bearing walls, plastered and painted as per estates guidelines.
Place galvanised *BRICKFORCE* every first and third courses as well as below slabs and every course above lintols or as instructed on by Structural Engineer. *DAMP PROOF COURSE* to be 'Gunplas Brickgrip' 375 micron D.P.C. to be laid over walls at floor slab level to form a continuous unbroken layer. D.P.C. to be used at all abutments between two wall skins at lintols, cills and jambs. Where joints occur D.P.C. to be lapped at least 200 mm and properly sealed. Use 375 micron Brickgrip embossed
'Gunplas': -
- **horizontally in all walls (for full width of wall) at floor height with ends overlapped minimum 200 mm**
- **vertically in walls next to windows and doors**
- **in window cills, and**
- **behind retaining walls.**

All damp poof course to comply with part K (SABS 0400) item KK15 of the National Building Regulations.Form MOVEMENT JOINT with polystyrene or bitumen-impregnated soft board where required. Fill the foremost part of the joint with polysulphide (colour to Architects approval).

PLASTER :
All interior and exterior walls to be plastered with 1 coat cement plaster to a thickness of 10 - 15mm. Mix cement and sand to the following proportions for one-coat cement plaster, bagging or roughcast:
FOUNDATION WALLS, CONSTANTLY DAMP CONDITIONS:
1:4 or 50 kg to 130 litres Cement : sand for Common cement AND1:3 or 50 kg to 100 litresCement : sand forMasonry cement.
EXTERNAL AND INTERNAL PLASTER ABOVE DPC-LEVEL:
1:6 or 50 kg to 200 litres Cement : sand for Common cement AND 1:5 or 50 kg to 170 litresCement : sand for Masonry cement.
WEAK SUBSTRATES, EG UNBURNT CLAY BRICK:
1:9 or 50 kg to 300 litresCement : sand for Common cement AND 1:6 or 50 kg to 200 litresCement : sand for Masonry cement.
All internal walls to get smooth steel trowel plaster finish.External walls to get a wood floated finish.Plaster detail to coping, plasterbands and building plinth as specified by Architect.Samples of all plaster finishes to be made up for approval by Architect prior to commencement of plasterwork.
WINDOW CILLS - plastered externally and internally with a smooth steel trowel finish for painting except internally where tiling is specified and facebrick used BOE to selected cills externally (refer elevations).
GYPSUM CEILINGS AND CORNICES to be painted with one coat primer and finished with two coats white acrylic PVA (PEM 900) to all areas except Bathrooms and Showers to be finished with two coats white Polyurethane non-drip Enamel like "Plascon Velvaglo" or similar approved, unless specified otherwise.
INTERIOR AND EXTERIOR METAL SURFACES to be painted with one coat Merit Universal Undercoat (UC1) and finished with two coats Polyurethane non-drip Enamel like "Plascon Velvaglo" or similar approved, unless specified otherwise. Colour as selected by Architect/Client. Underside of concrete slabs to be skimmed & painted unless specified otherwise.

DRAINAGE SINGLE STACK SYSTEM:
* All sewers to be 100mm dia min PVC, min fall 1:60, max fall 1:10.
* Open end of Vent pipe to be min 2m above any opening into building within a 5m radius. Sub vents to be fitted with an approved 2 way vent valve. All vents, stacks, geysers, down pipes etc. to be concealed. Stacks in ducs to be accessable for cleaning purposes.
* All bends and junctions in sewer to be fitted with I.E.'s, all R.E.'s under paving to be fitted with marked covers, Protect drain under foundations in accordance with PP24 of SABS 0400.
* All waste fittings to have reseal traps and pipe to be fully accessable if under floors, with I.E.'s either end or clamped to wall.
* Any sewer pipe not deeper than 350mm under ground level (I.L.-490mm) to be covered with a concrete slab, wide and strong enough to protect the sewer, with min 100mm soil between pipe and concrete.
* The radius at the centerline of bend at the foot of discharge stack, shall be not less than 300mm and other bends 600mm.
* The vertical distance between the invert of the lowest branch discharge pipe connected to and the invert of the drain at the point of connection of the stack and the drain to be min 500mm
* Where any waste or soil branches are connected to a stack the centre line of the waste branch shall not intersect the stack within 200mm below the centre line of the soil branch
* All waste branches to connect seperately to stack
* Where a french drain is required a percolation test shall be executed complying with Section PP2B of SABS 0400, and the french drain shall run parallel to the contours of the site.
* Sewer connection: as shown, with R.E. or manhole within 1,5m from connection foundations, brickwork & partitions:

Drainage & Gas Services notes:
1. All levels to be checked on site and final adjustmets to be made in accordance with Civil Engineer's instructions.
2. Inspection eyes on all corners and connections.
3. All pipes in walls complete with cleaning and rodding eyes with inspection and repair access.
4. Ventilation pipes 400mm above roof level.
5. Sewer & Stormwater pipes below building to be encased in min.100mm concrete.
6. Minimum fall of foil sewer pipes to be 1:60.
7. Fit vent valve on all waste fittings.
8. Pipe sizes:
wc & urinal - 100mm dia. upvc sewer pipe.
whb - 50mm dia. upvc waste pipe.
stacks & ventpipes - 100mm dia. upvc pipe
8. Simbols:
100mm upvc soil pipe @ min 1:60 fall to engineer`s design.
50mm upvc waste pipe built into brick walls
st 50mm dia upvc stack with ventpipe
100mm dia stack & vent 100mm dia upvc stack with ventpipe
re rodding eye
ie 100mm upvc downpipe with inspection eye
gully for waste water from hwb or sinks.
mh manhole

Project	Drawing	
PROPOSED ADDITIONS TO EXISTING DWELLING FOR PETER & NAWAAL TENDAUPENYU ON ERF 27976 GORDONS BAY	GROUND FLOOR PLAN	THE DESIGN ON THIS DRAWING IS COPYRIGHTED FIGURED DIMENSIONS TO BE TAKEN IN PREFERANCE TO SCALED MEASUREMENTS THE CONTRACTOR AND SUB CONTRACTOR MUST VERIFY ALL DIMENSIONS AND LEVELS BEFORE COMMENCING WORK ALL REQUIREMENTS OF MUNICIPAL AND OTHER AUTHORITIES MUST BE ADHERED TO DISCREPANCIES ON DRAWINGS, OR INTENDED VARIATIONS ARE TO BE CLEARED WITH THE DESIGNER, PRIOR TO COMMENTCEMENT WORKS TO BE DONE IN ACCORDANCE WITH THE NATIONAL BUILDING REGULATIONS FOR REINFORCING AND STRUCTURAL STEEL WORK, SEE ENGINEERS DRAWINGS.
	Owner Signature	
	FOR COUNCIL SUBMISSION	

RDC DESIGNS CC
Architectural Services

Registered With SACAP

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Project No	Dwg No
J 1909	3 of 8
Date: April. 2017	Drawn: RDC
Scale: 1:100	