



SERENGETI

GOLF AND WILDLIFE ESTATE

**architecture, landscape
and IT guidelines**



architecture
urban design



revision 2

november

2006

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1. introduction | background

This guideline document is to be read in conjunction with the relevant General Information Plan, Geotechnical Plan and Detail Sheets provided.

Serengeti Golf and Wildlife Estate is a unique, upmarket golf and wildlife estate with excellent residential and tourism opportunities set in the beauty and serenity of Africa's open grasslands. As the name "Serengeti" suggests, the design of this development is located in response to the rich South African natural environment, offset against the sculpted natural beauty of a Jack Nicklaus Signature Golf Course.

The estate will include a Jack Nicklaus Designed, 27 hole 'Signature' golf course, with traditional golf and country club and associated sports facilities such as tennis and squash courts, an equestrian centre, a health and wellness centre, a 340 Ha conservation area with wildlife, a village square including restaurants, entertainment and retail convenience stores and a luxury resort hotel with conference facilities.

It is the developers intention to create one of South Africa's premier leisure and golfing estates.

2. vision | intention

The vision for Serengeti Golf and Wildlife Estate is to for the architecture to demonstrate the delicate balance between the natural and built environment - the objective to create a seamless and appealing blend of architecture and environment, in so doing create a valuable, highly desirable and contextually appropriate living environment. The intention is to weave this vision through all urban design, architectural and landscape design considerations in order to provide a strong, palpable canvas of contextual awareness, which together with the development guidelines provide a framework within which to foster rich and diverse architectural expression.

It is imperative to bear in mind that these architectural guidelines are written not in the spirit of limitation, but rather freedom, to inform and guide with reference to carefully considered parameters in the interests of facilitating difference whilst preserving architectural identity and the broader integrity and value of the estate.

3. insight

purpose:

It is in the interests of the continued preservation of the value and integrity of this estate into the future, and with a view to the effective delivery and ongoing management of the estate that these design guidelines are written. These guidelines are carefully considered, and intend to guide design by presenting a framework within which individuals freedom of expression may be exercised without compromising the collective architectural language. It is the intention that these guidelines provide a framework which aims to: continue to protect the investment potential of the estate for the purchaser; protect the rights of each property owner in terms of security, privacy and views; control the standard of the implementation and maintenance of the design vision throughout the life of the estate.

process:

The architectural guidelines exist primarily for the benefit of the homeowners. In the initial design and construction phases, however, the guidelines will be managed by the Developer and Professional team represented by an Interim Design Review Committee. When deemed appropriate by the developer, these guidelines will be handed over to the constituted Home

Owners Association, who in turn will appoint a permanent Serengeti Design Review Committee (hereafter referred to as SDRC) to oversee its application. This guideline document is inherently a working document and the Directors of the Serengeti Golf and Wildlife Estate Property Owners Association (SPOA) reserve the right to amend this document at any time, and shall have absolute discretion in approving or refusing to approve any plans and specifications submitted for approval. It is not the intention, however, that any fundamental design principles be altered, and no amendments to these guidelines may be made retrospectively.

application:

The Architectural Guidelines document is only a part of the more comprehensive estate controls and rules, and must be read in conjunction with these other documents as listed below. These guidelines are not a replacement of any statutory requirements, necessary submissions or approvals and are in addition to the National Building Regulations, Occupational Health and Safety Act or any other Local Authority Requirements.

Plans for any buildings, whether new or alterations and additions must be submitted to the Serengeti Design Review Committee, as well as the Local Authority for approval. All review and inspection procedures imposed are done so in the interests of the homeowners in order to enforce compliance and preserve the developers vision and the value and integrity of the estate.

Other Documents:

- Recommended EMP (Environmental Management Plan) and Landscaping construction and operations codes
- Approved Conditions of Establishment
- Contractors Code of Conduct
- Sales Agreement
- The Property Owners Association Constitution
- The Serengeti Golf and Wildlife Estate Rules

The purchaser of an erven will commence construction of the dwelling for that erven within a period of 12 months from the date of registration of the first transfer of the property from the developer. From date of commencement the purchaser then has 12 months within which to complete that construction. Should these timeframes not be met penalties will be applicable as per the Sales Agreement.

4. context

general:

Serengeti Golf and Wildlife Estate is set on approximately 840 hectares of prime real estate in the heart of the economic hub of South Africa located just east of the R21 and R23 junction, in what the local authority refers to as the R21 development corridor. This, the first Jack Nicklaus Signature Golf Course in Gauteng, is situated just 5 minutes drive from the International gateway to South Africa, O.R.Tambo International Airport, and is also within a short 30 minute drive from the economic hubs of Johannesburg and Pretoria. The estate is characterised by typical highveld open grasslands, but also includes some vegetation and a healthy wetland, fed by two permanent streams which provide sanctuary to many bird species.

climate:

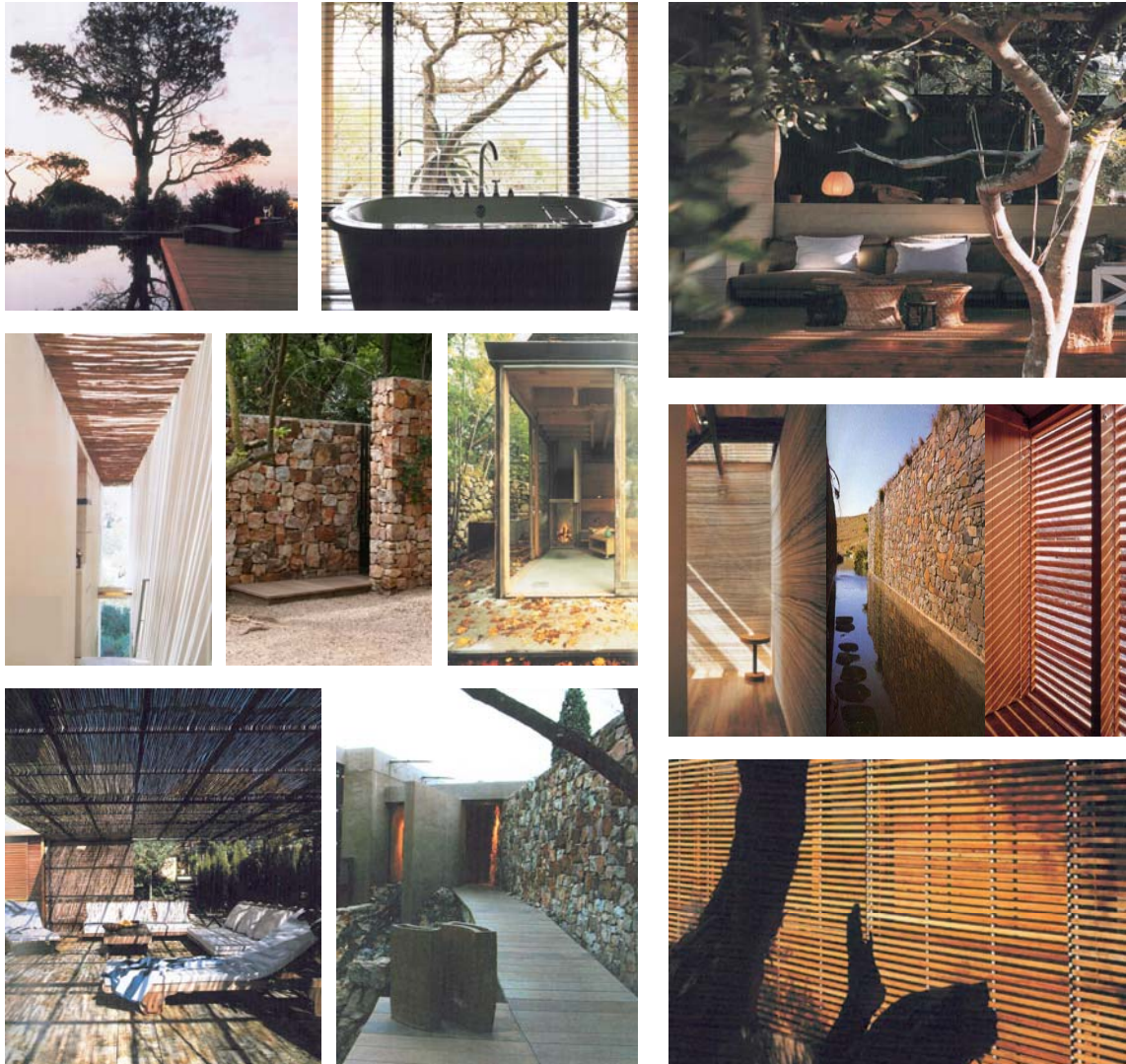
This area is generally characterised by a very favourable climate. The predominant rainfall occurs in the form of Highveld thunderstorms which typically occur in the summer months between October and March. These are most times heavy downpours of rain which are short

lived and disappear almost as quickly as they arrive. In these months the average rainfall per month is approximately 94mm, and the average rainfall per annum approximately 725mm. In winter the temperatures can get quite cooler than in the summer, and frost can often be found on the ground on winter mornings.

In the summer months (October to March) the average temperatures range from 12 – 26°C, and in the winter months (April to September) the average temperatures range from 4 – 23°C. Johannesburg gets an annual average of between 8 and 10 hours of sunshine a day.

5. design approach overview

At Serengeti the natural environment is primary, and it is the intention that the urban design, architectural and landscape language seek reference from the natural environment. The objective is to create a built environment which meets the natural environment seamlessly, in its colour, in its texture, in its materiality, in the way in which boundaries between indoor and outdoor rooms are broken down, in the way openings capture or articulate the natural light, or the way they frame a distant view, a view of tree, a fairway, a green. It is not intended that the architecture make bold statements, but rather weave a simple, subtle and sensitive thread through the natural environment. It is through this congruence between architecture and context that places resonate a rich sense of place.



The intention that this design framework and palette guide and promote diverse but appropriate architectural expression, allowing climate, context and spatial relationships to drive more deep-rooted, timeless architecture, rather than prescribing to particular popular, imported, stylistic references which date as fashion dates and bear little reference to local context and circumstances. The purpose of the guidelines is to reinforce and guide the vision, to foster freedom and creativity within the parameters of the collective architectural language.

It is vital to the success of the architecture in this estate that the fundamentals of good design are carefully considered when putting pen to paper. Principles of form, scale, mass, proportion, balance, contrast, texture and materiality must be carefully applied in order to create an environment which is pleasing to the eye and makes a significant contribution to the overall value of the estate. It is also hoped that these guidelines provide the opportunity for local architectural professionals to continue to contribute to the evolution of an appropriate, modern South African and Johannesburg vernacular architecture.

The developer and estate architects will, through an invitation and submission process, hand pick a number of registered architectural firms who most convincingly demonstrate interesting, refreshing and exciting interpretations of the estate vision, providing the foundation for rich diversity and architectural integrity woven together by the material, spatial and form guidelines as laid out in this document.

DEVELOPMENT FRAMEWORK

1. ARCHITECTURAL DESIGN GUIDELINES

1.1 site - contextual parameters

topography | orientation | views

1.2 site - general and statutory parameters

spatial approach | residential zoning | coverage | floor area ratio | heights | building lines

1.3 primary architectural elements

building form | envelope | mass | scale | proportion | materiality | colour | finish | building height | levels | roofs | openings | privacy

1.4 secondary architectural elements

opening treatment | pergolas, verandah's + 'lean-to's' | plinths, columns + posts | gables | parapets | eaves | roof lights | solar panels | chimneys | balustrades, balconies + handrails | soil and waste pipes | rainwater gutters + downpipes | boundary, screen + retaining wall treatment | timber decks

1.5 site considerations

laundry refuse + gas enclosures | driveways + paving | swimming pools + enclosures | stormwater | television aerials + satellite dishes | air-conditioning units | boats, trailers, caravans + golf carts | signage + lighting | security | temporary structures

2. LANDSCAPE DESIGN GUIDELINES

2.1 landscape vision

2.2 nature conservation and public landscaping

2.3 private landscapes

landscape conditions for home owners | landscape restrictions for home owners | plant species not permitted | recommended plant species | hard landscaping

- 2.4 sense of place**
- 2.5 construction and site activity**
- 2.6 recommended and permitted plant species list**

3. IT | COMMUNICATION GUIDELINES

- 3.1 introduction**
- 3.2 IT network termination (IT-NT) box requirements**
- 3.3 connection sleeves | conduits required for the IT network termination box**
- 3.4 AC power requirements (220V)**
- 3.5 maintenance access to your premises**
- 3.6 the network distribution inside your home (not mandatory)**
- 3.7 design and requirements enquiries**

1. ARCHITECTURAL DESIGN GUIDELINES

1.1 site - contextual parameters

topography

The site has a gradual fall towards the north-east. There are steeper falls on the site, particularly in the southeast towards the river course and dam, and also along the northwest boundaries. Vital Information Plans of erven showing contour intervals, boundary extents and other site restrictions will be provided to each property purchaser. Owners are advised to prepare surveys at 250mm intervals for their site plan approval.

orientation

Each erf in this estate will present its own unique site opportunities particular to its specific location within the estate. It is advantageous, however, that the most ideal orientation for a home in the Southern hemisphere, fractionally East of North, is aligned not only with the fall of the site, but also with the location of the bulk of the conservation area relative to the site. Views can obviously not be guaranteed, but what this means is that where sites lend themselves to these north, north-easterly views, homes that are orientated towards these views will also benefit from optimum sun orientation. Devices such as deep eaves projections, deep window and door reveals and pergolas with timber slats or deciduous climbing vegetation are recommended to moderate and screen sunlight into homes.

views

As mentioned in topography above, the site is not particularly steep, but does primarily fall away towards the northeast. This topography naturally lends itself to some distant views in a North and North-Easterly direction depending on the particular site in question. Breath taking views over natural features, the conservation areas and over the Jack Nicklaus golf course will be available from many stands as per the provisional site masterplan.

1.2 site - general and statutory parameters

spatial approach

The intention, spatially, is to create an interesting, varied and layered streetscape and golf course elevation. The specific spatial mechanisms utilised to achieve this end in this development are described and illustrated in more detail below.

residential zoning

Erven 1-1175 are zoned Residential 1
Erven 1176-1181 are zoned Residential 2

These stand numbers are subject to final General Plan approval.

coverage

Coverage on all erven will be restricted to a maximum of 50% of the erven area for 1 storey, and 40% of the erven area for 2 storey buildings, inclusive of all covered areas ie. garaging, covered entrances, terraces and balconies etc. The area of the first floor is limited to a maximum of 60% of the gross ground floor area. No more than 2 erven may be consolidated – in these instances

building is restricted to accommodate one family dwelling only. All consolidation applications must be submitted for scrutiny, and will be evaluated and approved at the sole discretion of the SDRC. A minimum dwelling floor area of 300m² is permitted for all residential 1 zoned erven on this estate. Basements may not extend beyond the footprint of the ground floor, may not project more than 400mm above the FGL (finished ground level) and are limited to 30% of the ground floor area.

floor area ratio

F.A.R for all Residential 1 erven will be 0.7

F.A.R for all Residential 2 erven will be as per approved SDP

second dwellings

No second dwellings other than a 'granny-flat' may be erected on any erven measuring 1000m² or more without the consent of the SPOA.

Definition: A granny flat is a dwelling unit with a floor area limited to a maximum of 130m², which may or may not be connected to the primary residence but must conform to and be an integral part of the design of the primary residence.

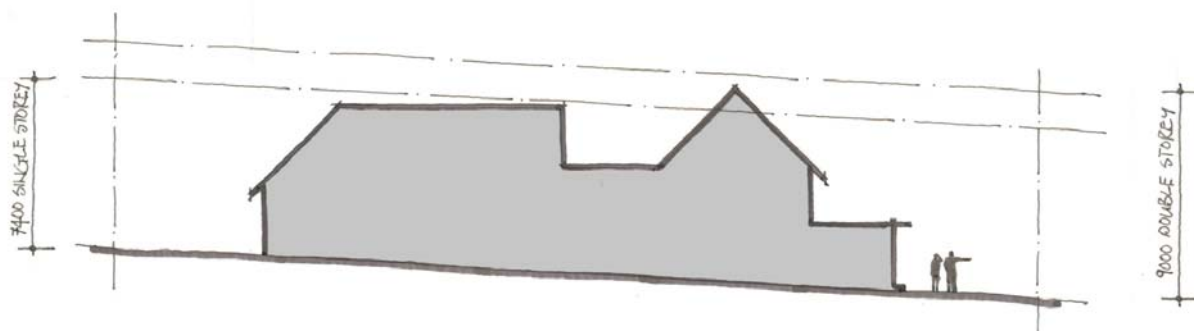
heights

All buildings are limited to a maximum of two storeys. The vertical dimension of a storey is limited to a maximum of 3200mm. For obvious reasons, views cannot be guaranteed, but in the interests of aiming to provide view corridors where possible, and moderate and articulate the scale and massing of the buildings, no first floor area may exceed more than 60% of the ground floor area.

All buildings must fall below a height of 9000mm measured vertically from the natural ground level at any particular point on the site for double storey building components, and 7400mm for all single storey components. Chimneys are the only exclusion from this 9000mm height restriction.

Adherence to building height restrictions will be closely scrutinised by the SDRC. Refer to Fig. 1.

Figure 1 – Maximum heights



building lines | setbacks

- street boundary

The intention behind the street building lines and setbacks is to create a visually interesting and articulated streetscape. The objective is that the main building itself, the garaging and the screening treatment together create depth and interest in the streetscape and avoid the hard boundary wall 'tunnel' environment often seen down streets in some parts of suburbia. Street building lines are minimum 5m. Garages will be set back beyond this building line and will have a 6m building line restriction to facilitate off street visitor parking, unless they do not face the street, in which case the 5m building line will apply. Boundary walls on the street are not permitted, but instead, screen walls in the screen wall 'zone', between 3m and 10m from the street boundary are recommended. It is intended that these screen walls not follow the

minimum screen wall building line (3m), but assist in articulating the street frontage by stepping back forth from property to property to suit the particular house design. These screen walls should not exceed more than 30% of the street frontage of any individual erven. Refer to section 1.4 for specifics relating to materiality and heights of boundary, screen and retaining wall treatment. Refer to Fig. 2.

- golf course and open space boundary

A 5m building line along all golf course and open space boundaries will apply. Boundary treatment on these boundaries is not permitted, and a similar screen wall approach to the street boundaries will apply. Screen walls screening areas for privacy are permitted, and are to be set back behind a 9m building line from the golf course or open space boundary. The length of any screening device facing an open space or golf course boundary may not exceed 30% of the relevant erven frontage. A 2m building line will apply to all swimming pools on these boundaries provided they are submerged in the ground and do not protrude more than 500mm above natural ground level at any point. Please refer to section 1.4 for details pertaining to screen wall treatment. Refer to Fig. 2.

- side boundary

Side building lines are restricted to 2.5m minimum for double storey, and 2m minimum for single storey. Hard side boundary treatment may not extend any closer than 10m from the street boundary, and 9m from any golf course or open space boundary. Refer to Fig. 2. These principles will apply to all irregular shaped erven, the final approval thereof to SDRC discretion. Further building line restrictions will be applied by the means of a 'height in relation to boundary' rule that stipulates a further setback from the side boundaries. In this case, a 2.4 meter 45° principal applies as illustrated below in Fig. 3, and is measured from the height of the lowest finished floor level.

Figure 2 – Building lines and setbacks - principles

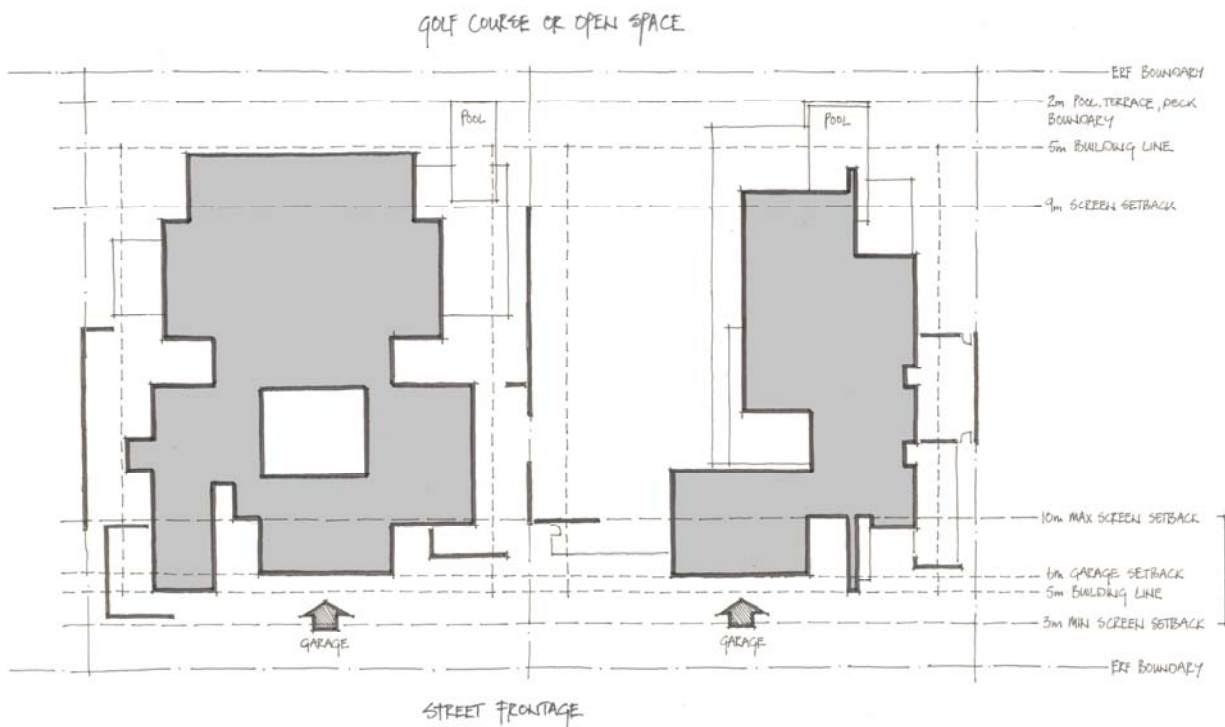
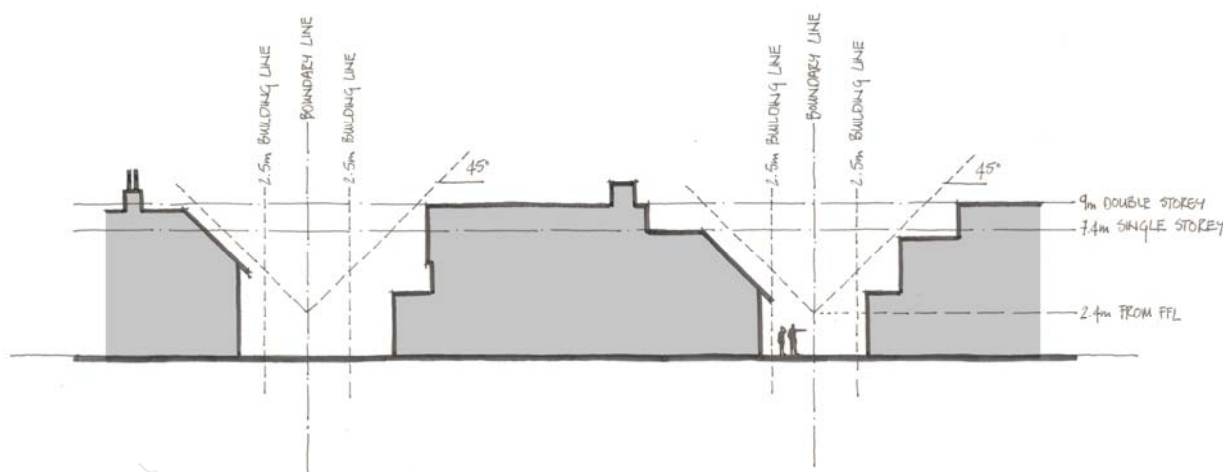


Figure 3 – Side boundaries – Height in relation to boundary rule



- lines of no access

Lines of no access are applicable to certain boundaries of erven as per the detailed Masterplan accompanied by a schedule available from the Estate Architects or the SDRC. These lines of no access, if applicable, are indicated on the General Information Plan.

1.3 primary architectural elements

building form | envelope

Buildings should generally be made up of simple, isolated, rectilinear forms. These predominant forms must have simple pitched roofs, either mono or duo-pitched. Flat roofs may not form the predominant portion of the roof, but should be used primarily to cover connecting elements and secondary elements such as covered terraces and entrances etc. Given the largely flat, horizontal lines of the landscape, the emphasis in the architecture should be on horizontality rather than verticality – architecture which sits close to the landscape and is in harmony with the landscape rather than dominating it.

Plan widths, particularly over dual pitch roof sections must be carefully considered in order to maintain the correct proportion of wall to roof particularly in single storey elements. As a guide, plan widths over these single storey dual pitch sections should be kept to a maximum of around 7000mm to maintain proportion and reduce roof ridge heights. These proportions will be closely scrutinised during the plan submission process.

Garages and 'granny-flats' should be seen as an integral part of the design of the home and considered holistically together with the house design even if detached from the main dwelling. No more than 3 single garage spaces may be represented on the street frontage of any single erven, including golf cart storage ie. 3x single or 1x double 1x single. Garage buildings should generally be single storey, with the second storey stepped back from the street.

Service/utility spaces are to be articulated in such a way that they are screened from living and entertaining areas as well as from the street, golf course or green open spaces.

mass | scale | proportion

By breaking the accommodation requirements down into simple, isolated plan forms, and treating the building as a series or cluster of buildings, connected by more moderately scaled flat roof connections, the scale and mass of a building which may contain significant accommodation can be visually broken down. This fragmenting of form also facilitates the stepping of the plan to suit the particular contours of the site, which not only enables the experiencing of the site in the dwelling internally, but assists in minimising the external visual impact, facilitates view corridors between pitched roof elements and creates an interesting and undulating roofscape.

The breaking down of scale and mass can be further achieved by adding flat or low pitched covered terrace/verandah/‘afdak’ or timber pergola elements which also significantly contribute to reducing the scale of a building down to more human proportions.

The use of roof space with mezzanine accommodation is encouraged to create interesting spatial relationships and reduce the height of roof lines.

Subtle projections and deep reveals in the elevation treatment create depth and shade openings (particularly with large expanses of glass) and articulate the facade of a building with the playing of light and shadow.

Together with plan widths, wall-plate heights contribute directly to proportion and scale, and with that in mind wall plate height may not be less than 2975mm in single storey dual pitched elements.

materiality | colour | finish

Natural materials and colour are the predominant palette for the estate. More ‘slick’ and clean lined materials such as off-shutter concrete are also encouraged in small proportions to offset and contrast the earth colours and textures. Wherever possible climate and the surrounding natural environment should be the predominant generator for materiality and colour, and should inspire the architectural decision-making. Richness and resonance in the architecture is created through the careful balance of material, colour and texture. A colour/sample board must be submitted for approval as part of the plan submission process (refer to section C – Mandatory Controls). A 2x2m colour panel of one of the approved colours must also be painted on the house for final approval.

Permissible construction materials, finishes and colours:

- **walls:**

- natural dry-packed stone (no less than 5%, no more than 25% of external wall surface)

the recommended stone finish is dry-packed, or flush jointed with no visible cement. No artificial stone will be permitted under any circumstances.



- off-shutter concrete (max 15% external wall surface)

- textured or smooth plaster and paint

Approved paint colours: FINAL PALETTE TO BE CONFIRMED

- specialised wall coatings (Marmoran or similar approved)

Marmoran Marakesh range approved colours: Safi; Casablanca; Sidi; Kebir; Tiznit; Bojador; Rissani; Missouri; Sale; Tangier; Fedela; Larache; Rich; Agadir

- bag wash and paint (test panel to be plastered for SDRC approval)

- plaster and cementitious coating (Coprox, Cemcrete or Earthcote)

Coprox Masonry Waterproofing approved colours:

Clay; Bamboo; Cane; Pumpkin; SL Tan; Mud; Drakensberg; Terrapont; Earth Yellow; SL Green

Cemcrete Cemwash approved colours:

Clarens; Golden Brown; Grey; Hazelnut; Kalahari; San le Mer; Sandstone; Shell pink; Wheat; Albany

Earthcote approved colours:

Cement range: Patenoster Sand; Lionshead; Driftwood; Sandstone; String; Copper Creek; Moroccan; Wet Cement; Karoo Brown; Anthracite

Sand range: Gravel; Highveld Frost; Wynkop; Geel Bek; Harbour Wall Grey; River Bed Stone; Crushed Quarry Stone; Stoep Plank Grey; Moses Rock; Backyard Mud

Peinture range: Boere Baroque; Monsieur Krokodil; Boet se Moet; Dikbek Dirk; Dung Beetle Brown

Windswept: Amper Wit; Buster Brown; Duiwel Doring; Drie Man Can; Fur on the dash; Knop Kierie Brown

- face brick - Corobrik (no more than 25% of external wall surface)

Buff:	Satin and Travertine
Terracotta:	Satin and Travertine
Roan:	Satin and Travertine
Firelight:	Satin and Travertine
Bergendal Rose':	Satin
Bergendal Light:	Satin
Country Cottage:	Travertine

The colour palette is intended to be the primary mechanism in presenting a collective architectural language throughout the estate, and stone and face-brick are intended to be feature materials and used on discrete elements such as feature walls, spine walls, screen walls, fireplace hearths and chimneys and obvious 'clip-on' elements etc. Change of material or finish on the same wall on the same plane will not be permitted, and must occur at logical separations and acute corners junctions to SDRC approval. All cementitious finishes must be applied naturally and strictly according to manufacturers specifications and no intentionally mottled or false aged plaster or paint effects will be permitted. No artificial stone will be permitted under any circumstances. A specific palette of natural

earthy colours for all wall coatings will be selected and must be adhered to. No plaster window and/or door surrounds, quoining or plaster banding will be permitted.

The intention is that the earthy palette of natural stonework, and the natural earthy colours and textures contribute to the architecture feeling as though it is 'part' of the environment, and creating a landscape where the built and natural environments sit seamlessly together. With that in mind, stone from a local source must be used and laid in the same dry-packed method throughout the estate. (sample panel to be constructed on site)

▪ **roofs:**

- clay flat profile 'Broseley' type terracotta roof tiles (Mazista Cotta or similar approved)

Mazista Cotta Tiles: Brosella Broseley Square (small and large); Constantia Broseley; Slate Terracotta – in brown and terracotta colour

- concrete flat profile roof tiles

Marley Modern: Terracotta; Standard Slate; Standard Brown

Lafarge Coverland Elite: Slate; Red; Brown; Terracotta; Kalahari

- natural slate (Mazista or similar approved) tiles

Mazista Tiles: Silver blue; West Country

- painted (Chromadek) galvanised steel profiled sheeting

Brownbuilt Custom Orb (corrugated) or Brownbuilt (or similar approved) standing seam concealed-fix profile in colours: dark dolphin; dove grey

- concrete flat roof – must be waterproofed and covered with approved loose stone finish

- thatch grass – roof to be designed, installed and fire-protected according to the SABS

All materials and colours approved at the sole discretion of the SDRC.

No mottled, speckled or antique finish to roof tiles will be permitted. All roof tiles to have clean lines, consistent colour and no texture. The ongoing maintenance for thatch roofs in order to keep them waterproof, and maintain the clean, crisp roof lines will be monitored and enforced.

The use of timber for pergola's, screening devices and decking is encouraged. Very hard timbers such as Balau are suggested as they require no maintenance and have beautiful weathering properties acquiring a silvery-grey colour in time – blending the architecture more and more with the natural environment with the passing of time. All exposed timber roofing members must be finished with approved oil, creosote or timber preservative with approved dark colour stain.

▪ **openings (windows and doors):**

- natural hardwood - with approved dark varnish or wood preservative (no colour painting will be permitted)

- aluminium – bronze anodised or powder-coated (colour palette to be selected)

Glazing is seen as a central material in the creation of a modern but contextual architecture for this estate. Whether large expanses of glazing, carefully articulated to flood

a room with natural light, designed to stack away to join indoor and outdoor rooms or provide punctured picture windows carefully positioned to capture particular views, it is recommended that all glazing be either set back in deep reveals for shading or screened by planted or timber slatted pergolas or sliding timber shutters. Glazing should generally be in clear glass. The use of sandblasted glass will be accepted in certain circumstances, and is preferable to the use of frosted glazing. Subtle tinting of glazing will be permitted, but reflective glazing will not be permitted.

building height

All residential buildings may be single or double storey. Coverage requirements and building line setbacks ensure that the second storey is stepped back from the ground to reduce the massing and create an interesting and fragmented roofscape which facilitates through views. No buildings will be permitted to exceed a height line of 9000mm above the natural ground level for all double storey-building components, and 7400mm for all single storey components.

levels

In keeping with the sensitive, integrated approach to the relationship between the architecture and the natural environment, the intention is that all design responds to the specific contours of the site, and for the house to step down with the fall of the land to maintain the lowest visual impact possible.

The height of buildings is not only important with regard to minimising vertical scale and preserving views, but also should be considered in terms of sun inclination and the impact shadow have on neighbouring properties.

roofs

Predominant plan forms must have simple pitched roofs with minimal junctions, either mono or duo-pitched which form the most predominant visual element in the roofscape. Discrete roofs are encouraged, and complicated pitched roof junctions should be avoided wherever possible. Should roof junctions be unavoidable, the simplest interface should be sought. Flat roofs may not form the predominant portion of the roof, but should be used primarily to roof connecting elements and to roof secondary elements such as covered terraces and entrances etc. Flat concrete roofs to be limited to 40% of the total roof area, and any single flat roof element may not exceed 15% of the total roof area. Secondary roofs (verandahs, lean-to's, connecting elements) in low pitched steel are encouraged where appropriate to break down vertical scale to more human proportions and are also limited to 30% of the total roof area. All roofs must have gable ends, and no hipped or half-hipped roofs will be permitted. No dormer windows will be permitted.

- The pitch of all clay flat profile 'Broseley' type terracotta roof tiles to be 35-45°.
- The pitch of all concrete flat profile roof tiles to be 35-45°
- The pitch of all natural slate tiles to be 35-45°
- The pitch of all Chromadek steel profiled sheeting to be:
 - mono-pitch 5-15°
 - duo-pitch 35-45°
 - lean-to/verandah 3-10°
- The pitch of all thatch grass roofs to be 45°.

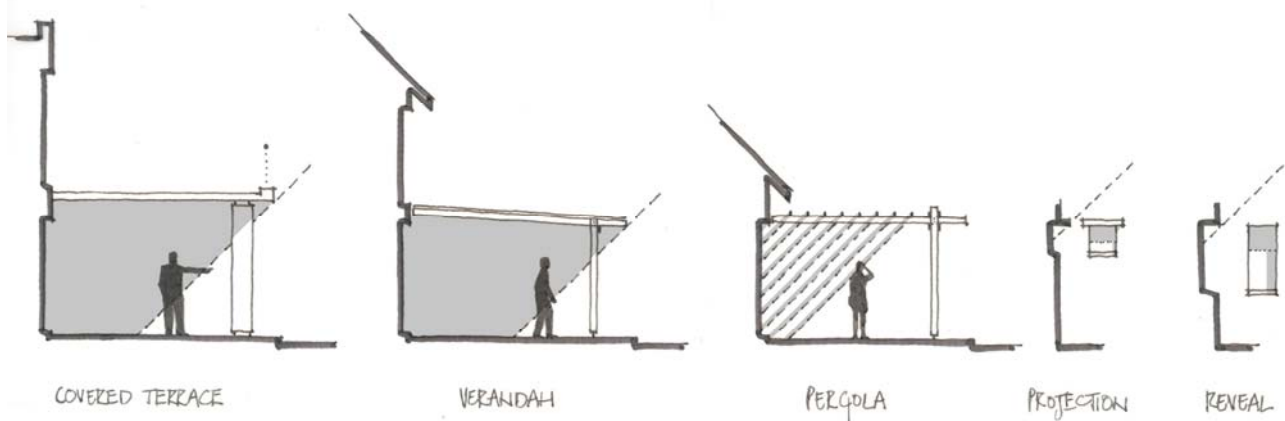
Thatch roofs to be a minimum of 200mm thick with eaves line cut square. Flat concrete link roofs must be waterproofed, and where trafficable be tiled, and where not trafficable dressed with a min 50mm layer of 13mm brown coloured approved loose stone chips. All flat roofs to have parapet walls. Roof material must be consistent on any particular property.

openings

The articulation of openings is a fundamental mechanism in the creating of a contextually and climatically appropriate architecture. Openings should all be carefully considered in terms of their ability to connect the architecture with the natural environment and articulate natural light into the building. Large expanses of glass are encouraged to flood a home with natural light and views of the natural environment, in some cases able to be stacked away where appropriate to bring the outdoors in and blur the boundary between what is inside and what is out. Picture windows can be carefully positioned to frame distant views or features in the natural environment. Groups of punctured windows can be positioned to articulate light within the home whilst at the same time create balance and interest in an elevation.

Given the South African climatic conditions, deep recessed reveals should be allowed to provide as much shading to the glazing as possible and articulate the elevations of buildings in terms of light and shadow. Subtle projections, deep overhangs, covered patios, verandah's or pergola's should be used to moderate scale, create depth in elevations and protect large glazed areas from the sun.

Figure 4 – Protection and articulation of glazed openings

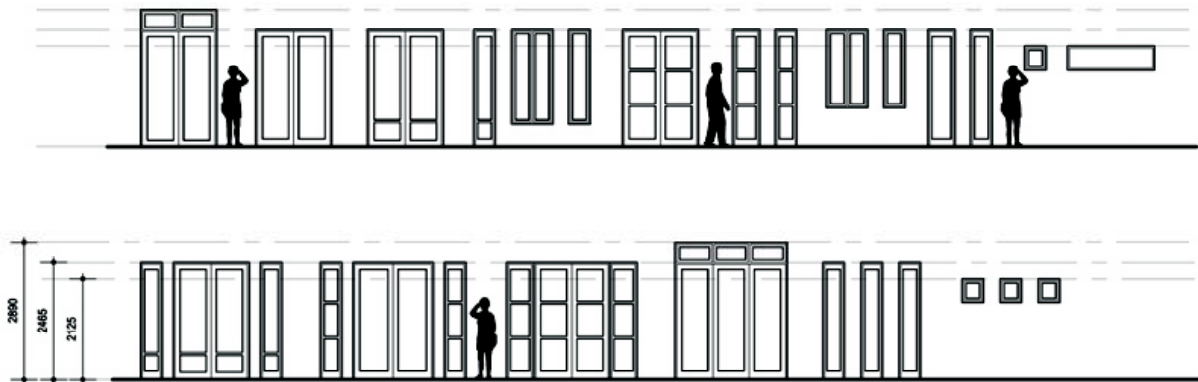


Glazed windows larger than 3m² should all be protected by a minimum 1m reveal or overhang, or be protected by a sun shading device.

All doors and windows to be either hardwood, treated with approved timber preservative and dark stain, or bronze anodised aluminium or powder coated aluminium in approved estate colours. All opening proportions to be predominantly in the vertical dimension rather than the horizontal, and should as often as possible be guided by the Golden Section proportion of 1:1,618.

Large, vertically proportioned glazed doors and windows are encouraged with head heights of 2465mm or more. Sidelights and fanlights to doors will be permitted provide they fit the design and proportion of the doors onto which they attach. No sliding-sash, or mock sliding-sash windows will be permitted. No cottage pane windows will be permitted and large panes of glass with a minimum of mullions and transoms are encouraged. All glazing to conform to the SABS.

Figure 5 – Examples of windows and doors and combinations thereof



Garage doors may be single or double door configuration and be set back in a minimum 690mm openings. Single doors should be separated by a masonry column, that column should have a minimum horizontal dimension of 575mm. Only horizontal slatted hardwood doors will be permitted. Steel roll-up, corrugated steel, pressed steel, moulded timber or carved timber doors will not be permitted.

Double glazing will be permitted, reflective glazing will not be permitted. Sandblasted glass is preferred over frosted glass in areas requiring privacy.

privacy

Architects must demonstrate in their submission drawings that privacy of the adjoining property owners has been considered and any overlooking issues attended to and incorporated into the design.

1.4 secondary architectural elements

opening treatment

The use of timber or aluminium shutters is recommended as a mechanism to screen large expanses of glass from the sun, articulate the natural light, and provide indoor spaces or even potentially outdoor covered spaces protection from the sun and prevailing wind without the need to close the openings completely. Shutters also have the added advantage of providing privacy whilst at the same time allowing some light and ventilation.

Shutters must be made of the same material and finished to match the door and window frames. Shutters should generally be external sliding, or cavity sliding into masonry cavity. All shutters are to be louvered. The use of side hung louvered timber shutters will be considered. Fake shutters will not be permitted.

pergolas, verandah's + 'lean-to's'

These items are highly recommended where possible to achieve the desired architecture of this estate, and play a pivotal role in not only breaking down the scale of buildings to more human dimensions, and breaking down the mass of buildings into finer elements, but also provide covered or semi-covered 'outdoor rooms' which form a fundamental part of the South African way of life.

Timber pergola's may be utilised on any house regardless of the roofing choice, whereas 'clip-on' verandah's or lean-to's may only be used on homes with steel sheeting roofs given that two disparate roof finishes may not be used on the same home. Steel sheeting is the only roof finish which can be used on the required low pitch of all verandah's which is 3°-10°. Flat concrete roofs may also be used over covered terraces | verandah's etc.

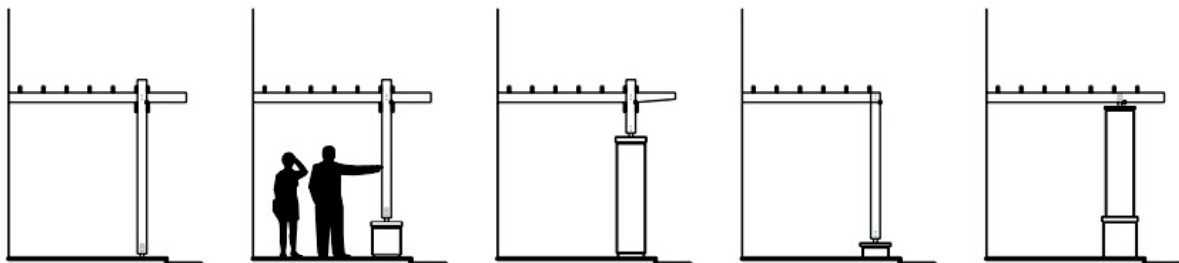
All pergola's to be timber, either untreated hardwood (such as Balau), or timber treated with approved oil, creosote or timber preservative with approved colour stain. In all cases all jointing must be bolted with galvanised dome nuts rather than gang-nail connectors. Pergola's may either be finished with timber slatting finished to match the pergola, timber latte, or stainless steel cables at required centres to carry deciduous vines.

Please refer to the following section for acceptable post and column requirements and descriptions.

plinths, columns + posts

The use of natural dry-packed stonework plinths is encouraged. Proud plaster plinths or facebrick may be used as an alternative to stonework. No plinths to be higher than window sill height (but no higher than 600mm), and to be dealt with sensitively with the stepping of floor plans to suit the natural fall of the site. Only simple contemporary columns made of masonry, steel or timber, or combinations thereof, will be permitted. No classical order, decorative or sculpted columns will be permitted. No fibre-cement, prefabricated historical or circular columns will be permitted. Particular attention should be paid to the detail of the junctions between the different materials that make up these columns. It is intended that these connections be clean and crisp, and the SDRC will monitor the resolution of these details carefully in the planning approval process.

Figure 6 – Columns and posts - suggestions



gables

All gable ends to have a maximum overhang of 200mm. For steel roof sheeting, a continuous rolled steel trim piece is required to be made the depth of the purlin and the sheet end, and made in the same finish as the roof sheeting. For clay and concrete flat profile tiled roofs, the tile ends may be left exposed provided an adequate timber closer is provided at the junction between the overhang and the gable wall. Alternatively, a rake verge tile can be used as per the standard Marley or Coverland gable end roof detail.

Simple gable parapets will be permitted, provided they are a simple gable wall extension and a straight line parallel to the pitch of the roof. No ornate or sculpted parapet gables will be permitted. Gable parapets to be finished the same as the rest of the house elevation do not get parapet copings as per the flat roof horizontal parapet treatment.

parapets

Concrete or masonry parapets to all flat roof sections, the top of which must be minimum 3 brick courses (255mm) above the top of the concrete slab. All parapet walls to be finished in Watson Concrete or similar approved simple concrete coping. Any departure from this coping must be described in plans submitted to the SDRC for approval.

eaves

Eaves overhangs must be a minimum of 700mm. Deep eaves are encouraged in order to screen large expanses of glazing, create depth and shadow to articulate elevations and to protect openings from driving summer rain. All eaves closures to be raked along same line as the roof pitch. Tiled roofs to have T + G boarding eaves closure laid on top of the rafters between tile battens. All exposed timber to be finished in approved oil, creosote or timber preservative with approved colour stain.

No horizontal eaves closure, or eaves closure that hides the truss extensions will be permitted. Verandah/lean-to eaves overhangs to project at least 650mm beyond the face of the supporting columns.

No scalloped truss ends will be permitted. Truss ends may however be trimmed or narrowed with a straight line chamfer.

Any eaves overhangs that exceed 750mm must be supported by either wall-mounted support sprocket or beam and post system to the SRDC approval.

roof lights

Roof lights will only be permitted if in clear glazing and in the same plane as the roof. Tinted or reflective roof lights are prohibited. Skylights may be used in the flat concrete roof sections, but their size and location must be such that they are not visible from any street, open space, golf course or the ground floor of any neighbouring property. The position and design of these roof lights and skylights to DRC scrutiny and approval.

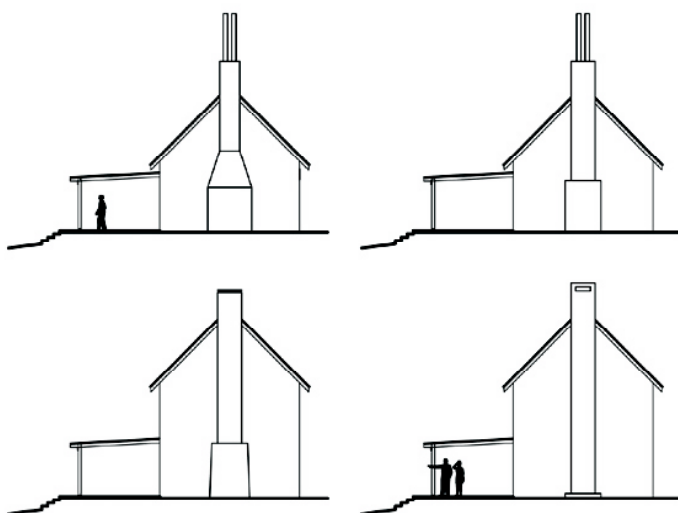
solar panels

Solar panels may only be used if they are concealed and not visible from anywhere, including the first floor of neighbouring properties. Position to be clearly indicated on plan for approval by the SDRC.

chimneys

Chimneys should be of masonry construction, either clad in natural dry-packed stone or finished in the same manner as that of the home. All chimneys shall be straight rectangular, or rectangular tapering towards the top. No typical 'Jetmaster' or similar rotating cowls will be permitted.

Figure 7 – Chimney types



balustrades, balconies + handrails

A wide variety of balustrades and handrails to balconies will be permitted, but the materiality and detail thereof must form part of the plan submission process, and will be approved at the discretion of the SDRC. Any reflective materials will be dissuaded. Colour and materiality to be in keeping with that of the estate palette.

soil + waste pipes

All soil and waste pipes to be concealed in ducts, their location carefully considered and integrated into the design of the house. Access internally and at ground level externally to be provided by means of a suitably sized access door. No fibre cement boarding may be used to conceal these pipes.

rainwater gutters + downpipes

Gutters and rainwater down pipes are discouraged where possible in favour of clean roof lines and concrete or stone aprons to direct storm water run off away from the home. Where gutters and down pipes will be used, they should be unobtrusive, and concealed and integrated into the design wherever possible. All gutters to be of seamless aluminium and in a colour to match the colour palette of the house. Position of rainwater down pipes or chains to be very carefully considered in terms of the design and aesthetic of the home. All storm water to be directed away from the home and towards the storm water collection points where possible. Adequate weep holes to be provided at ground level in all boundary walls. Storm water strategy and treatment to be clearly described in all submission drawings.

boundary, screen + retaining wall treatment

Boundary walls, screening walls and retaining walls are a fundamental part of the overall architectural vision. The materials and design of these walls must therefore relate closely to the broader estate vision as well as to the specific design of the home on which they exist. Visual permeability towards the golf course, towards the conservation area or pockets of open space is the goal throughout this estate, and with that in mind completely visually impermeable boundary treatment on the street, open space and golf course frontages is strongly dissuaded. Creative location and design of screening treatment which is integrated with and compliments the architecture whilst preserving visual permeability is the goal.

All high boundary/screen walls are limited to a maximum height of 1,8m. Softer, semi-permeable screening treatment such as simple galvanised steel palisade, vertical hardwood slatting, or natural timber latte is advised on all street, open space and golf course frontages. Combinations of solid and semi-permeable screening and boundary treatments creatively and sensitively articulated are also encouraged. No retaining walls to exceed 1200mm from natural ground level. All retaining walls to be natural dry-packed stone without exception.

Material, height and location of all screening and boundary treatment must be clearly demarcated on drawings submitted for SDRC approval.

All screening and boundary treatment to have a horizontal top. No 'Vibacrete' or any other precast type walls will be permitted. No picket fencing will be allowed. No spikes on top of walls will be allowed. No artificial stone walls will be permitted. No sculptures of any description will be allowed on any walls.

All garden and vehicular gates should match the height of the screen wall within which it sits, and the materiality and colour thereof should be in keeping with that of the house and the broader estate. The design of all semi-permeable screening to be consistent for that property.

timber decks

The use of timber decks is encouraged over the use of tiles on large open terraces. The use of natural materials is preferred, and decks appear to sit lighter on the landscape, floating over nature providing a much softer transition between the built and natural environment.

Very hard woods such as Balau are recommended for all decking due to their zero maintenance requirements, and their natural beautiful weathering properties. Most other hardwoods require being finished in an approved oil, creosote or timber preservative with approved colour stain.

1.5 site considerations

laundry refuse + gas enclosures

All areas for laundry, refuse and gas storage must be completely concealed from view, enclosed by solid screen walls constructed in a material, colour and design appropriate to the design of the home.

driveways + paving

All driveways and paving must be designed, surfaced and finished according to the landscape guidelines as set out in the landscape section of this document, and described in detail for scrutiny in the plan submission process.

Please refer to the two typical driveway | street kerb details.

swimming pools + enclosures

Position and design of swimming pools should be considered with specific reference to the design of the house and the site conditions for that particular house and can play a pivotal role in maintaining or increasing the value of a property. Each individual resident is responsible for the necessary safety precautions to be taken around swimming pools and any other water features.

All proposed pool enclosures must be submitted for approval by the SDRC. All swimming pools to have a minimum setback of 2m from any boundary. Swimming pools to be backwashed or drained into the sewer system and may under no circumstances be pumped into natural public open spaces, storm water drains or onto the golf course.

stormwater

Each property owner must take responsibility for all stormwater entering or originating in his property. Stormwater consideration must be indicated clearly on the plans submitted for approval by the SDRC.

television aerials + satellite dishes

No external antennae's or satellite dishes of any nature will be permitted - DSTV and SABC signal distribution is catered for over the fibre network. Please refer to the IT | Communication Guidelines section of this document for more information.

air-conditioning units

All air-conditioning units must be concealed from view from the street, the golf course, any green open space and adjoining properties and their position also clearly indicated on plans submitted for approval.

boats, trailers, caravans + golf carts

None of the above may be kept on any public spaces or public roads. Stored on private property these items must be concealed from view from the road, the golf course, green open spaces and adjacent properties, preferably stored in garaging.

signage + lighting

The position and design of all external light fittings to be considered in terms of subtlety and effectiveness. No coloured lights will be permitted. Cut-off type light fittings to be used on buildings which push light down and avoid any glare. No illuminated signs will be permitted. External light design strategy to be included in landscape plan submission for approval by the SDRC. All proposed signage to be submitted to the SDRC for approval. House numbers at the street to standard detail by developer to follow.

No post boxes will be allowed on properties, a central postal depot will be provided at the retail village.

security

The principle behind security at this estate is that it is managed at the estate perimeter, and policed within the estate by the estate security to give residents complete piece of mind without having to secure their stand boundary or home with unsightly security devices.

Should purchasers insist on burglar proofing their home, it is critical that this is one of the initial considerations in the design of the home, and that due consideration is given to the sensitive position, colour and design thereof. All burglar proofing to be internal and as visually unobtrusive from the street, open spaces and golf course as possible.

temporary structures

No temporary structures including Zozo huts, Wendy houses, garden sheds, vegetable enclosures or similar structures will be permitted. Where garden equipments storage is required, the necessary provision must be made within the design of the house. No awnings or screens of any description, whether fixed or moveable will be permitted. No golf screening/protective netting will be permitted on any property.

2. LANDSCAPE DESIGN GUIDELINES

2.1 landscape vision

The goal of the Serengeti landscape is the creation of a characteristic, unifying and harmonious natural environment, which accommodates both individual and natural systems to their mutual benefit. The conservation of native indigenous vegetation and the promotion of its use in public and private areas is a valuable objective and will contribute greatly to ecological diversity and habitat creation.

The combination of the conservation, golf course and residential landscaping will play a major role in absorbing the overall visual impact and diversity inherent in this residential estate. The objective is to extend the naturalness of the conservation area and theme planting of the Central Boulevard and secondary roads, to the private gardens as well. This is achieved through the correct promotion of native indigenous trees and larger shrub species.

Local indigenous plants are also important for their role in providing habitat and food for local birds, insects and small mammals, etc, as well as their drought resistance and general hardiness.

2.2 private and public landscaping

The intention in the greater landscape design is to preserve and protect the unique qualities of this Highveld, grassland landscape. It is characterised by its undulating grassland topography together with unique wetlands and riverine tree scapes.

Residents are also strongly encouraged to make use of local indigenous plants in their private gardens as far as is practical and to select plants from the recommended plant list. The plants can be used in an informal or a more formal manner, where a design theme dictates.

In order to maintain continuity in the overall landscape character, owners of erven are required to design and to implement the garden landscapes around the houses in accordance with certain conditions, specifications and restrictions.

In this way the collective indigenous landscape theme will be realised for the appreciation and benefit of all. A plant list of approved plants will be made available by the developer.

2.3 private landscapes

2.3.1 landscape conditions for home owners

- 1) A landscape development plan for the garden of an erven is to accompany the building plan submission, and both will need to be approved by the appointed Serengeti Design Review Committee (SDRC).
- 2) This plan shall be to a scale of 1:100 and shall show the following:
 - i) Standard notations to include: Client/Developers name, Erven number, Landscape designers name and contact information, date, scale, north indicator, etc.
 - ii) The plan must also include a plant list indication the common names, botanical names, plant bag size, and density of planting.

- iii) Adjacent areas of private open space or golf course.
- iv) All grading, retaining and terracing intended to be undertaken, including gradients and structural elements, must be indicated. The maximum natural landscape slope is 1:3.
- v) Indicate the position of the existing trees to remain and the existing trees to be removed (removal of trees is restricted).
- vi) The intent of dealing with any stormwater run-off in the landscape must be indicated.
- vii) All plant material, species, numbers, spacing and size must be indicated, including grass species for lawns and these must conform to the restrictions in plant choice given in these guidelines.
- viii) All paving, water features, swimming pools, pumps and filters, fences, gazebos and any other structural elements must be indicated, and the intended finishes specified. This must include details of stormwater handling and elevations where relevant.
- ix) The type of irrigation system and irrigation layout (if applicable), pipelines, sprinkler positions and sprinkler types and intended coverage area must be indicated.

2.3.2 landscape restrictions for home owners

- 1) The gardening and landscaping activities of an erven owner shall be confined to the physical extent of the pegged residential erven.
 - i) No extension of an erven garden into an adjacent area of golf course, fairways or out of play area will be permitted. This includes irrigation, plantings, storage, fencing, pool equipment, earth mounds or portions of embankments or cut slopes.
- 2) An erven owner, or anyone employed by him, may not remove trees, landscaping, or any other plants or natural elements such as rocks or firewood from the conservation area.
- 3) Existing trees located on the erven can only be removed by the owner should the position of the existing tree be directly in the way of new structures (including swimming pools) and paving, or if the tree is declared unstable/unsafe. Before a tree can be removed it must be approved by the SDRC.
- 4) No trees, landscaping, or other plants, may be removed from the greater golf course by an erven owner.
- 5) Kikuyu grass (*Pennisetum clandestinum*) is not allowed to be cultivated or planted on an erven.
- 6) Cool season's grass or cultivars of it are the preferred lawn types.
- 7) All declared invasive alien plants, trees, shrubs and grasses are not permitted within the estate and may not be cultivated or planted in erven garden. Refer to item 2 under 2.3.3
- 8) Fences shall comply in height, position and construction with the architectural guidelines.
- 9) Garden lighting – refer to architectural guidelines.
- 10) Where the intention of the erven owner is to cultivate a hedge, the position, type and final height shall be indicated on the submitted landscape plan.
- 11) Rock features, concrete statues, pots, and water features viewable from the road or the golf course must be approved by the SDRC prior to construction.

- 12) Any proposed irrigation system must be connected to the house potable water system; the homeowner is thus responsible for the payment of potable (and irrigation) water usage.
- 13) The owner is to control any soil erosion issues that may occur on their erven through the use of recognised, common practice, erosion control measures. Any erosion damage on the common areas of the estate, or to the properties of adjacent owners will be for he responsible erven owner's account.
- 14) Invasive alien vegetation clearance on any underdeveloped erven, remains the responsibility of the owner and must be undertaken on a quarterly basis, failing which the Home Owner's Association will undertake the clearance at the owner's cost.
- 15) In some zones of the estate the extension of an erven garden area into the immediately adjacent verge is obligatory subject to certain specific design requirements. In other zones (still to be indicated) no extensions will be considered in the interests of the greater visual impact and sensitivity. Such requirements will be indicated on the site diagrams.
- 16) No extension of an erven garden into an immediately adjacent conservation area will be permitted. This includes irrigation, plants, storage, fencing, pool equipment, earth mounds, portions of embankments or cut slopes.

2.3.3 plant species not permitted

- 1) No alien plants may be cultivated in the erven landscape garden. Non-invasive exotic species will be allowed in the enclosed courtyards only. Plants can only grow 1m higher than the courtyard walls in these areas.
- 2) Any Plant found on the Table indicated in Regulation 15 (Conservation of 'Agricultural Resources Act, Act No 43 of 1983), and any subsequent revisions to the list.

Alien plants should be eradicated. The following categories of declared weeds and invader plants are recognised (Amendment to the regulations of the Conservation of Agricultural Resources Act No. 43 of 1983 - see Regulation 15, promulgated on 30 March 2001).

Category 1 plants: They are prohibited and must be controlled by the land user.

<i>Campylocloinium macrocephalum</i>	Pom-pom weed	Pom-pom bossie
<i>Cestrum aurantiacum</i>	Orange cestrum	Oranjesestrum
<i>Cestrum laevigatum</i>	Inkberry	Inkbessie
<i>Cirsium vulgare</i>	Scotch thistle	Skotse dissel
<i>Cortaderia jubata</i>	Pampas grass	Pampasgras
<i>Datura ferox</i>	Large thorn-apple	Grootstinkblaar
<i>Datura stramonium</i>	Common thorn apple	Gewone stinkblaar
<i>Opuntia ficus-indica</i>	Sweet prickly pear	Turksvy
<i>Solanum mauritianum</i>	Bugweed	Luisboom
<i>Solanum sisymbriifolium</i>	Dense-thorned bitter apple	Wilde tamatie

Category 2 plants: These are plants that serve a commercial purpose, e.g. shelterbelt,

building material, animal fodder, medicinal function etc. Plants may be grown and maintained in demarcated areas provided that permission is obtained and a permit is issued. Steps should be taken to prevent the spread of these plants.

<i>Acacia mearnsii</i>	Black wattle	Swartwattel
<i>Eucalyptus cf. sideroxylon</i>	Black ironbark	Swartysterbasbloekom
<i>Pinus canariensis</i>	Canary den	Kanariese den
<i>Populus x canescens</i>	Grey poplar	Vaalpopulier
<i>Salix babylonica</i>	Weeping willow	Treurwilger

Category 3 plants: These are ornamentally used plants. These plants may no longer be planted, maintained or multiplied. Existing plants may remain, as long as all reasonable steps are taken to prevent the spreading thereof. They are not allowed within 30 m of the 1:50 year flood line of watercourses and wetlands.

<i>Melia azedarach</i>	Seringa	Maksering
<i>Morus alba</i>	Mulberry	Moerbei

2.3.4 recommended plant species

- 1) It is the intention of the landscape design planting theme to encourage the use of 'Water-wise' indigenous gardens, complemented by vernacular trees and shrubs of the Highveld region. The list of species has therefore been compiled to guide the planting design of gardens.
- 2) See 2.6 below, indicating the permitted plant species.
- 3) Indigenous shrubs and groundcovers are preferable, however, a maximum of 15% exotic shrubs and groundcovers (in terms of coverage) is allowed. The exotic shrubs and groundcovers must not be declared weeds or invader plants (see 2.3.3.2 above).

2.3.5 hard landscaping

- 1) Hard landscaping surfaces, i.e. brick paving, tiling, etc. around houses will not be permitted to cover the entire site. Cumulatively paving shall not cover more than 25% of each even area and a minimum of 25% of each even must be soft landscaping.

2.4 sense of place elements

South African Highveld
Grassveld plains
Thorn trees
Water as natural resource
Meandering watercourse
Wetlands and associated vegetation with abundant bird life

Free roaming game
Sunsets
Wide open and undulating topography
Thunder storms
Special conservation status
Stonewall remnants
Farmsteads

2.5 construction and site activity

- 1) All construction processes and site activities must strictly adhere to the documented EMP, which can be obtained from the developer.

2.6 recommended and permitted plant species list

Recommended indigenous trees and shrubs for Serengeti

Plant species	Common name	Tree/ shrub	Ever- green	Deciduous/ Semi- decid.	*Growth (S, M, F)	*Growth rate per year (m)	*Frost (S, M, R)	*Drought (S, M, R)	*Protection (young)	*Habitat (W, S, R, F)	*Buildings
Apodytes dimidiata	White pear	Tree	E		M	0.70	M	M	protect	W, F	X
Brachylaena rotundata	Mountain silver oak	Tree	E		M	0.60	R	M		R	
Ilex mitis	African holly	Tree	E		F	0.90	M	M	protect	W, F	X
Olea europaea subsp. africana	Wild olive	Tree	E		M	0.70	R	R		F, R	X
Pittosporum viridiflorum	Cheesewood	Tree	E		SM	0.60	R	R	protect	F, W, R	
Podocarpus falcatus	Outiniqua yellowwood	Tree	E		MF	0.80	R	M	protect	F	X
Rhus lancea	Karee	Tree	E		MF	0.80	R	R		S	X
Acacia caffra	Common hook thorn	Tree		D	MF	0.80	R	R		S, R	X
Acacia galpinii	Monkey thorn	Tree		D	F	1.00	M	M	protect	W, S	X
Acacia karroo	Sweet thorn	Tree		D	F	1.00	R	R		W	X
Acacia robusta	Ankle thorn	Tree		D	F	0.90	R	R	protect	S	X
Acacia nilotica	Scented thorn	Tree		D	M	0.80	R	R		S	X
Berchemia zeyheri	Red ivory	Tree		D	S	0.50	M	M	protect	F, R	X
Bolusanthus speciosus	Tree wistaria	Tree		D	MF	0.80	M	R	protect	S, F	
Celtis africana	White stinkwood	Tree		D	F	1.50	R	R		W, F	X
Combretum erythrophyllum	River bushwillow	Tree		D	F	1.00	R	M		W	X
Combretum molle	Velvet bushwillow	Tree		D	M	0.60	R	R		R	
Cussonia paniculata	Highveld cabbage tree	Tree		D	F	0.85	R	R		R	X
Dombeya rotundifolia	Wild pear	Tree		D	F	1.30	R	R		S, R	
Dovyalis zeyheri	Wild apricot	Tree		SD	M	0.60	M	M	protect	F, R	
Heteromorpha trifoliata	Parsley tree	Tree		D	F	0.90	M	R	protect	R, F	
Kiggelaria africana	Wild peach	Tree		D	F	1.20	R	M	protect	F, R	
Kirkia wilmsii	Mountain seringa	Tree		D	F	1.00	M	R		R	X
Ozoroa paniculosa	Common resin tree	Tree		SD	S	0.40	M	R	protect	R	
Pappea capensis	Jacket plum	Tree		SD	SM	0.65	M	R		S, R	
Peltophorum africanum	African wattle	Tree		D	F	1.20	M	M	protect	S	X

Rhus leptodictya	Mountain karee	Tree		SD	F	1.00	M	R		R	X
Rhus pendulina	White karee	Tree		D	F	1.00	R	R		W	X
Ziziphus mucronata	Buffalo thorn	Tree		D	F	1.10	R	R		S, W, F	
Cassinopsis ilicifolia	Lemon thorn	Shrub	E		M	0.80	M	R		F, W	
Diospyros whyteana	Bladder-nut	Shrub	E		M	0.65	M	M	protect	W, F	
Dodonaea angustifolia	Sand olive	Shrub	E		F	0.90	M	R		S, R	
Calpurnia aurea	Wild laburnum	Shrub	E		F	1.00	M	R	protect	F	
Euclea crispa	Blue guarri	Shrub	E		S	0.40	R	R		F, R	
Euclea undulata	Common guarri	Shrub	E		S	0.40	R	R		S, R	
Halleria lucida	Tree fuchsia	Shrub	E		F	0.90	M	M	protect	W, F, R	
Loxostylis alata	Tarwood	Shrub	E		F	0.85	M	R	protect	F	
Maytenus undata	Koko tree	Shrub	E		M	0.60	R	R		F, R	
Psydrax livida	Green tree	Shrub	E		M	0.60	R	R		R	
Rhamnus prinoides	Dogwood	Shrub	E		F	1.00	M	M	protect	W, F	
Rothmannia capensis	Common rothmannia	Shrub	E		M	0.65	R	M		F, R	
Scolopia zeyheri	Thorn pear	Shrub	E		M	0.60	R	R		F	
Buddleja salviifolia	Sagewood	Shrub		SD	MF	0.80	R	R	protect	W, F	
Clerodendrum glabrum	Tinderwood	Shrub		D	F	0.85	M	R	protect	S, F	
Diospyros lycioides	Bluebush	Shrub		D	M	0.60	R	R		S, R, F	
Ehretia rigida	Puzzle bush	Shrub		D	M	0.65	R	R		S	
Gymnosporia buxifolia	Common spike thorn	Shrub		D	M	0.60	R	R		S	
Grewia occidentalis	Cross-berry	Shrub		SD	F	1.00	R	R		F, R	
Leucosidea sericea	Oldwood	Shrub		D	M	0.60	R	R		W, R	
Mundulea sericea	Cork bush	Shrub		SD	M	0.70	R	R		R	
Nuxia congesta	Common wild elder	Shrub		SD	F	0.85	M	M	protect	S, F, R	
Rhoicissus tridentata	Bushman's grape	Shrub		D	F	0.90	R	R		S, F, R	
Rhus dentata	Nana-berry	Shrub		D	M	0.80	M	R	protect	F, R	
Rhus pyroides	Common wild currant	Shrub		D	F	0.85	M	R		S	X
Rhus zeyheri	Blue currant	Shrub		D	S	0.50	R	R	protect	R	
Tapiphyllum parvifolium	Mountain medlar	Shrub		D	S	0.40	M	R		R	
Vangueria infausta	Wild medlar	Shrub		D	S	0.40	R	R		S, R	
Ximenia caffra	Large sourplum	Shrub		SD	S	0.40	R	R		S, R	
Zanthoxylum capense	Small knobwood	Shrub		SD	F	0.85	R	M	protect	F, R	

*Approximate growth rate: S = slow (<0.5 m p.a.); M = medium (0.6 - 0.8 m p.a.); F = fast (>0.85 m p.a.)

*Frost resistance: S = sensitive; M = moderate; R = resistant

*Drought resistance: S = sensitive; M = moderate; R = resistant

*Protection (young): protect plants against cold during first 2 - 3 years

*Habitat: W = riverine or near water; S = open savanna or wooded grassland; F = dense bush or forest; R = rocky

*Buildings = be planted not close to buildings

3 IT | COMMUNICATION GUIDELINES

3.1 introduction

It's a known fact that the success of the IT network largely depends on the successful implementation of the "Triple Play Services" inside the residential premises. It's crucial that the network termination and distribution design is well-thought-out and as refined as necessary before the various services (Voice, Video and Data) are activated.

3.2 IT network termination (IT-NT) box requirements

Inside the garage an "IT-Network Terminating Box" needs to be installed (during the building process) that will accommodate the fibre network termination and the associated IT Network Equipment.

It is recommended that the box be built in on the inside of the garage wall that is also one of the premises "inside" walls. This is required for the single termination point (for the services) at the inside the house. The box needs to be purchased from the developer in order to maintain a single standard throughout the estate for ease of maintenance purposes.

The Physical size of the IT-NT Box: 450 mm (Height) X 600mm (Width) X 225mm (Depth)

3.3 connection sleeves | conduits required for IT network termination box

- Your builder or Electrician must install 2 x 32mm diameter sleeves / conduits from the IT – NT Box (inside the Garage) up to a specific marked point at 500 mm above ground level on the outside of the building. The position of this point must be at the AC power entry point (facing in the direction of the AC Power box on the street boundary that feed the applicable residence.
- These sleeves/conduits must be fitted with draw-wires and sharp bends (short 90 deg) must be avoided.
- The IT-Network provider will install the fibre cable from outside the premises (Underground) and use the entry "lead-in" to access the two sleeves/conduits outside the premises. The last piece of fibre will then be installed from the entry point outside the premises up to the "IT-NT Box" inside the garage by using the provided 32mm sleeves/conduits.
- In addition to this requirement another 2 x 32mm sleeves/conduits must be installed from the IT-NT box to the inside of your house to a connection / distribution box. This is a typical Electrical "Wall Box" used for the fitment of a 15A AC plug. At this point inside the premises a single connector for each of the Voice, Data and Video will be provided. The length of this connection should preferably not exceed 10m.

These sleeves/conduits must also be fitted with draw-wires and sharp bends (short 90 deg) must be avoided.

3.4 AC power requirements (220V)

- Within 1 (one) meter from the IT Network Termination Box inside the Garage a double-15A outlet must be provided.

- This Plug-outlet will be dedicated to the IT Network Equipment.

3.5 maintenance access to your premises

- Access to your premises might be required for the IT Network technicians for maintenance purposes and would then require your permission in advance to access your garage.
- The IT-NT Box will be locked and will only be unlocked for the period when a technician is working on the equipment inside that box.

3.6 the network distribution inside your home (not mandatory)

- In addition to the network termination requirements a distribution design inside the premises should also be considered and designed.
- It is recommended that conduits (32mm) and cable draw points be placed in every room inside the house. This distribution will be used to connect all the related IT services (Voice, Video and Data) points to all possible rooms inside your house.
- These sleeves/conduits must also be fitted with draw-wires and sharp bends (short 90 deg) must be avoided.
- Conduits (32mm) should be linked to one “DB Boxes” centrally inside the house (preferably inside to ceiling) and all the points in every room should be linked to this “DP Boxes” in a star-topology design linking all the various room conduits to this point.
- Please note that this “DB Box” also needs to be linked to the Network Termination box with 2 x 32mm Conduits.
- From this central “DB Box” co-axial cables (for TV / Video), CAT-5 cables (for Data) and twisted pair cable (for telephone) signals will be distributed and wired to all the rooms.
- The recommended physical size for the “DB Box” is 450 mm (Height) X 450mm (Width) X 225mm (Depth)
- Additional network hardware (i.e. WiFi access points / camera’s etc) will require additional conduits.
- Consultation on the design, technical detail and implementation can be provided on request.

3.7 design and requirements enquiries

Please visit the Serengeti web site for contact details for assistance in the design and implementation of your Residential Triple Play Network.

MANDATORY CONTROLS

- 1. plan submission processes and requirements**
- 2. construction activity and building control**

1. plan submission processes and requirements

Should any clause stated in this guideline document be in any way regarded as contrary to the National Building Regulations, the National Building Regulations will take precedence.

Any new work or alterations and additions on a property requiring a contractor will be subject to review by the constituted Serengeti Design Review Committee which will meet on a regular prearranged basis and report and recommend to the Home Owners Association executive on submitted proposals. Minutes of all Serengeti Design Review Committee meetings will be kept and a record of all approved building, and landscape development plans will be kept by the Estate Manager. The process and requirements of the Design Review Committee will be as follows:

prior to building plans and operations being considered for approval

A non-refundable **Architectural Review Fee** of R500.00 (Five Hundred Rand) for sketch plans, and R1,000.00 (One Thousand Rand) for full building plans excluding VAT is payable to The Serengeti Golf and Wildlife Estate Home Owners Association upon submission of building plans. In the event that plans need to be re-submitted, a re-submission fee of R500.00 (Five Hundred Rand) is payable and thereafter any consultation will be charged for on an hourly rate as stipulated by the estate architect. Prior to construction work being approved to commence, a refundable **Building Performance Deposit** of R7,000.00 (Seven Thousand Rand) must be paid to the Serengeti Golf and Wildlife Estate Property Owners Association to be held in trust (free of interest). This deposit amount will be used in event there is a breach in conduct in any way by the contractor. Once working drawings have been approved by the SDRC, and are ready to be submitted to the Local Authority, a **Ramp Fee** (amount to be determined) will be payable for the construction of the kerb and ramp from the road to meet the erf driveway.

These payments are subject to an annual escalation of minimum 10% and may be reviewed at any time at the sole discretion of the Serengeti Golf and Wildlife Estate Property Owners Association.

The Building Performance Deposit will be released subject to the submission to the Serengeti Golf and Wildlife Estate Property Owners Association of the following documentation:

- Local Authority Completion Certificate and Occupancy Certificate.
- Practical Completion Certificate from the SPOA
- The SPOA appointed agent's Certificate of Completion

Refunds will be made within 10 working days once the above-mentioned documentation has been correctly completed and submitted. The SHOA reserve the right to prevent occupation should this documentation not be correctly provided and adhered to. The SHOA require a once-off fee of (amount to be determined) for the supply and erection of a builder's board on site. Detail of board to follow.

notice of intention

A notice of intention to do new work, outlining the proposed work, must be submitted to the Estate Manager at least two weeks prior to the submission of proposed work plans (as set out below) to enable a site inspection to establish a clear understanding of the context of the proposal.

submission procedure

Architectural plans/landscape development plans, by one of the accredited estate architectural professionals, sufficient to fully describe the proposal and show compliance with the guidelines will be submitted to the Serengeti Golf and Wildlife Estate Home Owners Association

constituted Design Review Committee at least one week prior to a scheduled Serengeti Design Review Committee review meeting.

Plans will be required to be submitted in two stages. The Serengeti Design Review Committee will sit every two weeks for the review of plans for Stage 1, and weekly for the review of plans for Stage 2 according to a predetermined schedule. Stage 1 plans will be approved and or returned within two weeks of submission. All review meetings are closed to all applicants. Any consultation with the review architects or landscape architects will be charged for at an agreed hourly rate.

stage 1 - sketch plans

A single copy of the sketch plans as well as the SDRC Sketch Plan Checklist signed by the owner and architectural professional must be submitted. The following drawings are required for Stage 1 submission:

- Site plan (1:200)
- Floor plans of all floors, typical sections and all elevations (1:100)
- Roof plan (1:200)
- Two 3-dimensional views of the home from the street and from the golf course/open space where applicable
- Landscaping site plan indicating proposed layout and necessary descriptions (1:100)

A1 size drawing format is preferable over A0 wherever possible.

A detailed checklist setting out all items that must be clearly shown on all plans will be available from the SDRC offices or the Estate Manager for Stages 1 and 2.

stage 2 – working drawings

Once Stage 1 plans have been approved by the Serengeti Design Review Committee, three copies of the detailed working drawings together with the signed SDRC checklist must be submitted. The set of drawings to be submitted to the Local Authority for approval must carry the stamp of approval of the SDRC.

Any dispute whatsoever regarding these development guidelines will be taken to arbitration in terms of the Home Owners Association Constitution.

Occupation of the premises will only be granted once the property owner has produced an Occupation Certificate from the Local Authority and once a Practical Completion Certificate has been produced by the Serengeti Design Review Committee.

2. construction activity and building control

Builders Code of Conduct by Developers to follow.

SECTION D

CONCLUSION

This design and development guideline document is a working document that sets out the principles in order for quality and value to be maintained. These guidelines will continue to grow and become more defined throughout the design and construction processes and thereafter at the Developer and Design Review Committee's discretion. The provision, implementation and continued adherence to these guidelines is in the joint interests of the Developer, the professional team, the property owners and residents of this scheme, with a view to providing a living environment of the very highest calibre, therein maintaining the ongoing experiential and monetary value of this estate.