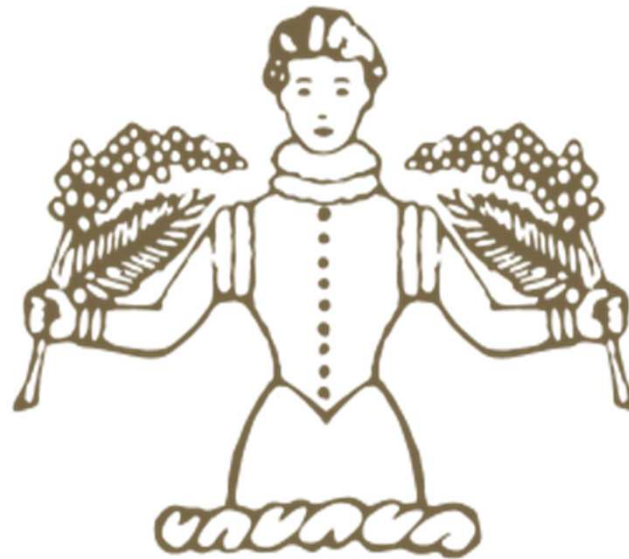


MONAGHAN FARM



ARCHITECTURAL AND LANDSCAPING REGULATIONS

Revision: 25 January, 2021

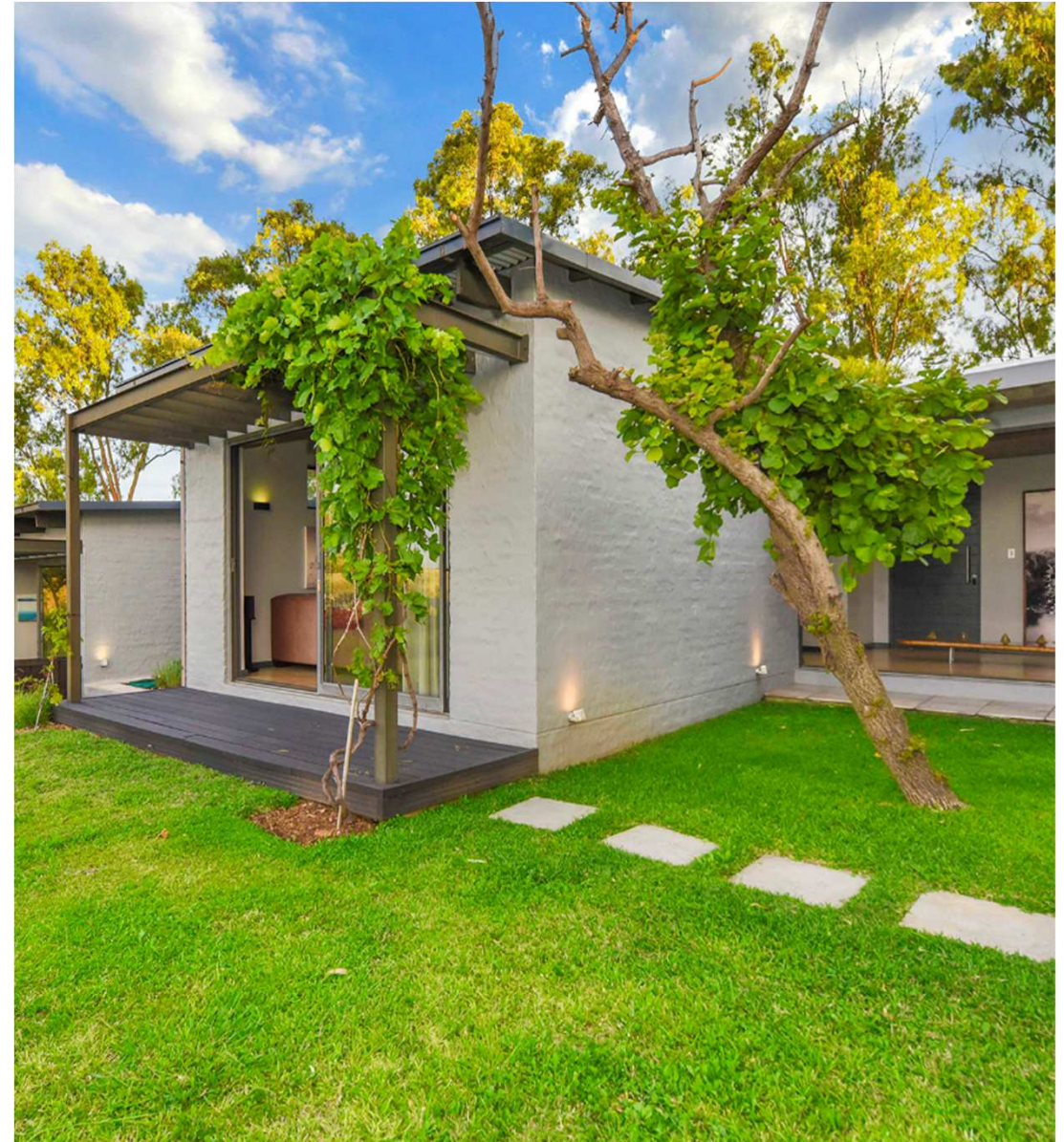
ARCHITECTURAL AND LANDSCAPING REGULATIONS

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PART 1: MONAGHAN FARM ARCHITECTURAL REGULATIONS

INTRODUCTION

Good architecture and design are especially important to Monaghan Farm

From the outset, Monaghan Farm was established as a residential environment which stands out from other estates and developments in that it displays a level of design and ethical integrity lacking in our contemporary surrounds.

Monaghan Farm is a showcase of architectural excellence and environmental sustainability, and many of the houses have garnered media attention, competition accolades, industry respect, and both professional and public approval.

We believe that exceptional long-term value is achieved by controlling the look and feel of the houses through a combination of architectural regulations and an active Aesthetics Committee.

The Monaghan Aesthetics Committee (MAC), a group of professionals who are well positioned and qualified to judge each submission's architectural merits, require that the appointed SACAP registered professional remains the sole conduit between MAC and the project for the build's duration. SACAP professionals inherently understand the placing of a house in its landscape, responsive to our wonderful yet dramatic weather patterns with sensitivity to energy consumption and sustainability, and demonstrate a level of professionalism in realising a homeowner's dreams.

Homeowners therefore need to ensure that their SACAP professional is appointed for their build's duration with the minimum engagement to be no less than one site visit per month of construction.

All designs need to consider key principles: Energy efficiency, alternative renewable energy sources, and locally sourced building materials.

ENERGY EFFICIENT DESIGN

Passive design elements within the building control temperature. Insulation, orientation, shading, cross ventilation, overhangs, and thermal massing are all examples of passive design elements that reduce reliance on external energy input (see Figure 1).

ALTERNATIVE RENEWABLE SOURCES

Solar water heaters: Where solar geysers are used, the holding tanks must be hidden from sight. Where solar receptors cannot be flush mounted, SACAP professionals must supply plans and elevations to show how the proposed installation will affect the house design as well as the neighbours' view. Installations must be screened or hidden behind parapet walls. National building regulations prescribe that 50% of hot water must be produced through alternative energy (solar or heat pumps).

Heat exchangers: Condensers must be hidden/screened from sight.

Photo voltaic (PV) panels: Photo voltaic (PV) panels should be incorporated into the building's design. Where PV panels cannot be flush mounted, SACAP professionals must supply plans and elevations to show how the proposed installation will affect the house design as well as the neighbours' view. PV panels must be screened (e.g. wind diffusers to match roof colour) or hidden behind parapet walls.

Gas: Gas cage to be hidden out of sight from the street and neighbours.

Evaporate coolers: SACAP professionals must supply plans and elevations to show how the proposed installation will affect the house design as well as the neighbours' view. Plan details to include positioning of the external cooler and ducting. Ducting is to be hidden and screened. The cooler is to be colour coded to match either the roof or wall upon which the installation is approved for.

Air-conditioning: Only eco-friendly inverter air-conditioning units may be installed. External piping and condensers must be hidden and screened. Condensers should be positioned so that noise levels do not impact upon neighbouring properties.

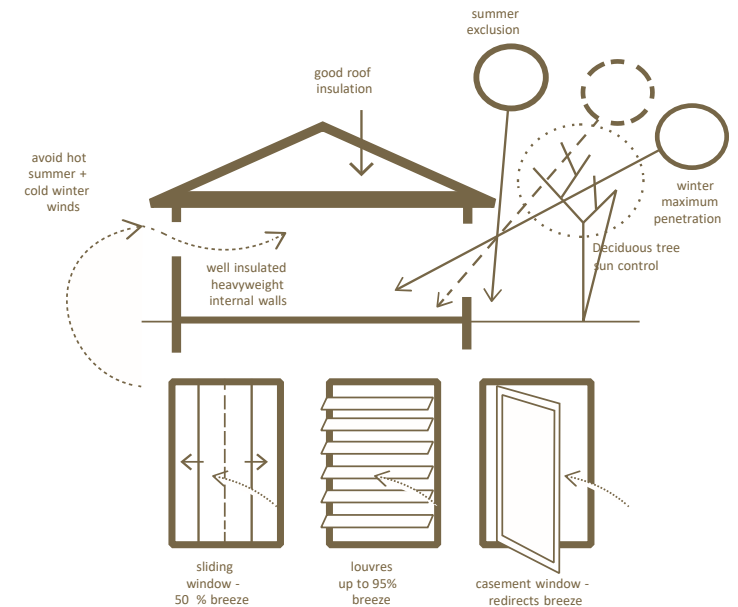


Figure 1: Examples of passive design elements

DESIGN PRINCIPALS

1. SINGLE STOREY

Houses must be single storey with a 5.5 m height restriction from the natural ground level (NGL) to the roof's apex, at any given point on the site (no chimney, evaporative cooling, satellite dish, etc. may be above the height restriction). Please note that NGL refers to the original site contours on purchase, i.e. before any construction or earthworks have taken place.

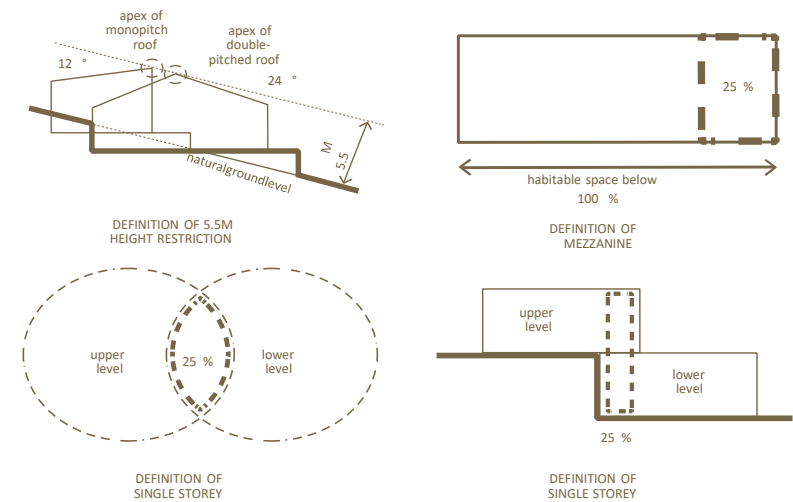


Figure 2: Single storey definitions

2. ROOFS

Roof shape

24° double-pitched / max 12° mono-pitched / curved or vaulted / less than 5° “flat roof” hidden by parapets. Hipped roofs are discouraged as they create unsightly visual bulk.

Material and colour

17.5/18mm corrugated profile Chromadek or Macsteel “Classidek” or “Corrugated” material. Rheinzink double standing seam flat pan, which is especially suitable for low pitched roofs, can accommodate custom shapes. Please note, only the flat pan option is acceptable. In the case of ‘invisible flat’ roof MAC makes allowance for IBR (inverted box rib) as long as this is not visible from any reasonable, present, or anticipated future public line of sight, or neighbouring eye level position, or road. Decking, turf, gravel.

“Dark Dolphin” N13030/ “Charcoal Grey” N130312 (as per Figure 3) paint colour. ‘Shiny flat roofs’ are not permitted, waterproofing on flat roofs to be covered by gravel or painted to MAC specifications.

Chimneys

Are to be MAC approved. e.g. a simple stainless steel or matt black flue from a reputable manufacturer with a small, subtle matching cap. Alternatively, a masonry chimney in accordance with the house’s design. No “bird-shaped” cowls will be approved.

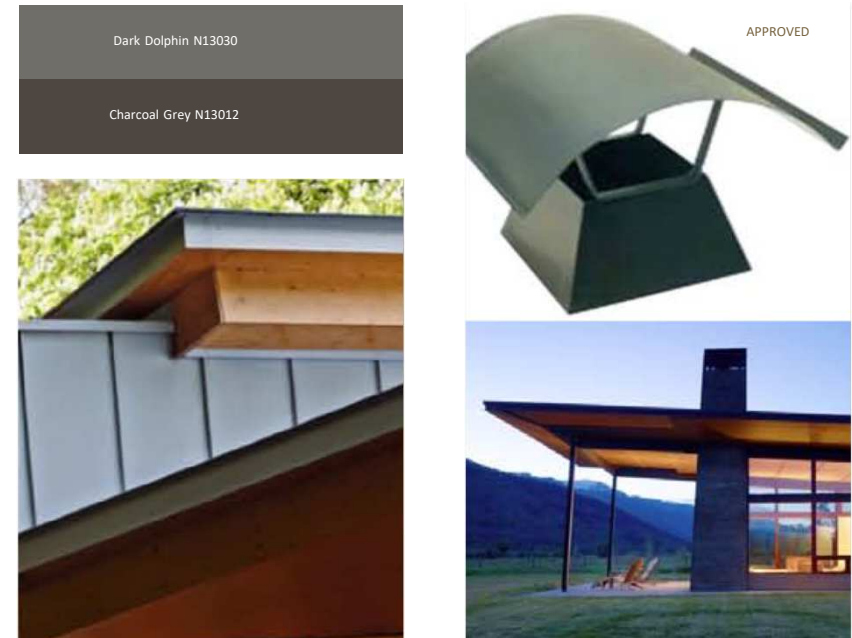


Figure 3: Approved roofing shape, colours and Chimneys

3. EXTERNAL MATERIALS

Stone cladding:

Only two stone claddings types are allowed. The wall to Monaghan Gate House’s east is an example of approved stone walling, as well as the grey stone cladding as seen on the Farm (see Figure 5). Stone cladding must be in a natural fieldstone pattern (no other patterns will be permitted) and be locally sourced.

Gabions

Gabions are permitted as home feature walls not exceeding more than 15% of the elevation. They can also be used as retaining walls. The stones allowed in the gabions are the same as those for cladding with one darker option (see Figure 6) and only the boulder size (not horizontally packed).

Face brick

No face brick is permitted.

Rammed earth walls

Sample to be approved by MAC.

Plaster and paint

No two-tone painting is permitted.

Only bagged brick work, brick work with flush joints and plastered walls – all to be painted as per the Monaghan Farm colour palette (*refer to Annexure B*) are permitted. Sample to be submitted on site to MAC for approval.

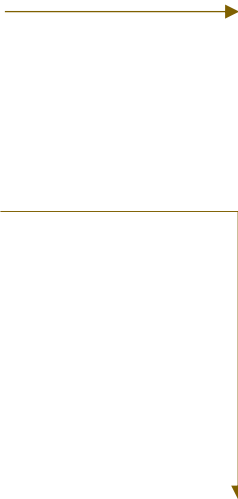


Figure 5: Acceptable stone cladding



Figure 5: Acceptable stone cladding

Cladding

Corten steel or “corrugated iron” cladding to match the roof. Wood is to be stained in a very dark colour (Imbuia or Ebony) or left untreated to turn silvery grey. Sample to be submitted on to MAC for approval.



Figure 7: Example of side cladding

Shipping containers

Shipping containers must form part of the building/architecture and not be a standalone unit. Shipping containers must be painted.

Timber

The same type of wood finishes must be used throughout the erf/project.

Wood is to be stained in a very dark colour (Imbuia or Ebony) or left untreated to turn silvery grey.

Sample to be submitted to MAC for approval.

Window and doors

Only charcoal grey (N130312), matte black or natural **aluminium** may be used.

Timber is to be stained in a very dark colour (Imbuia or Ebony) or left untreated to turn silvery grey.

Front doors can be painted a different colour as an accent point. (*refer to Annexure B: Monaghan Farm colour palette*)

4. PASSIVE SOLAR VS ARTIFICIAL HEATING & COOLING

All houses must demonstrate passive solar design and energy saving construction elements, starting with the property's orientation. The façade's orientation, with the major area of the building's glass, should ideally be between 345° and 15° (approximately true north) and the façades facing east, west, and south should be provided with minimum fenestration for compliance with ventilation and lighting.

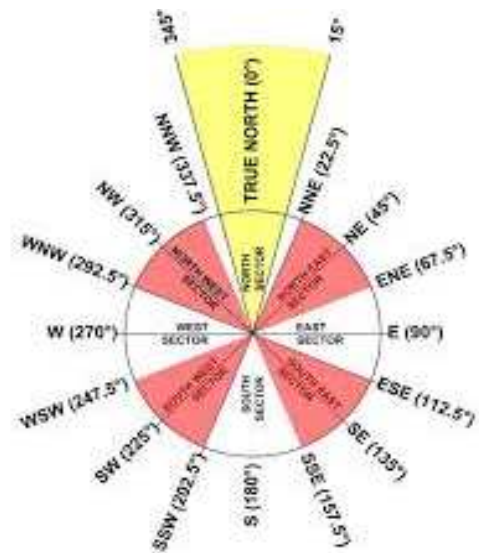
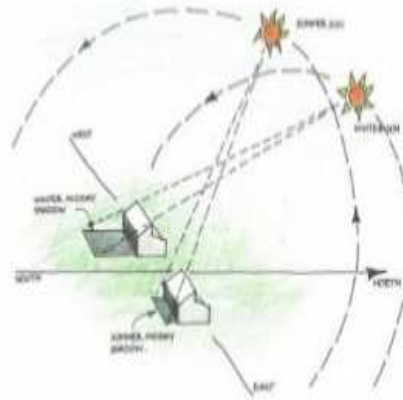


Figure 9: Passive design principles

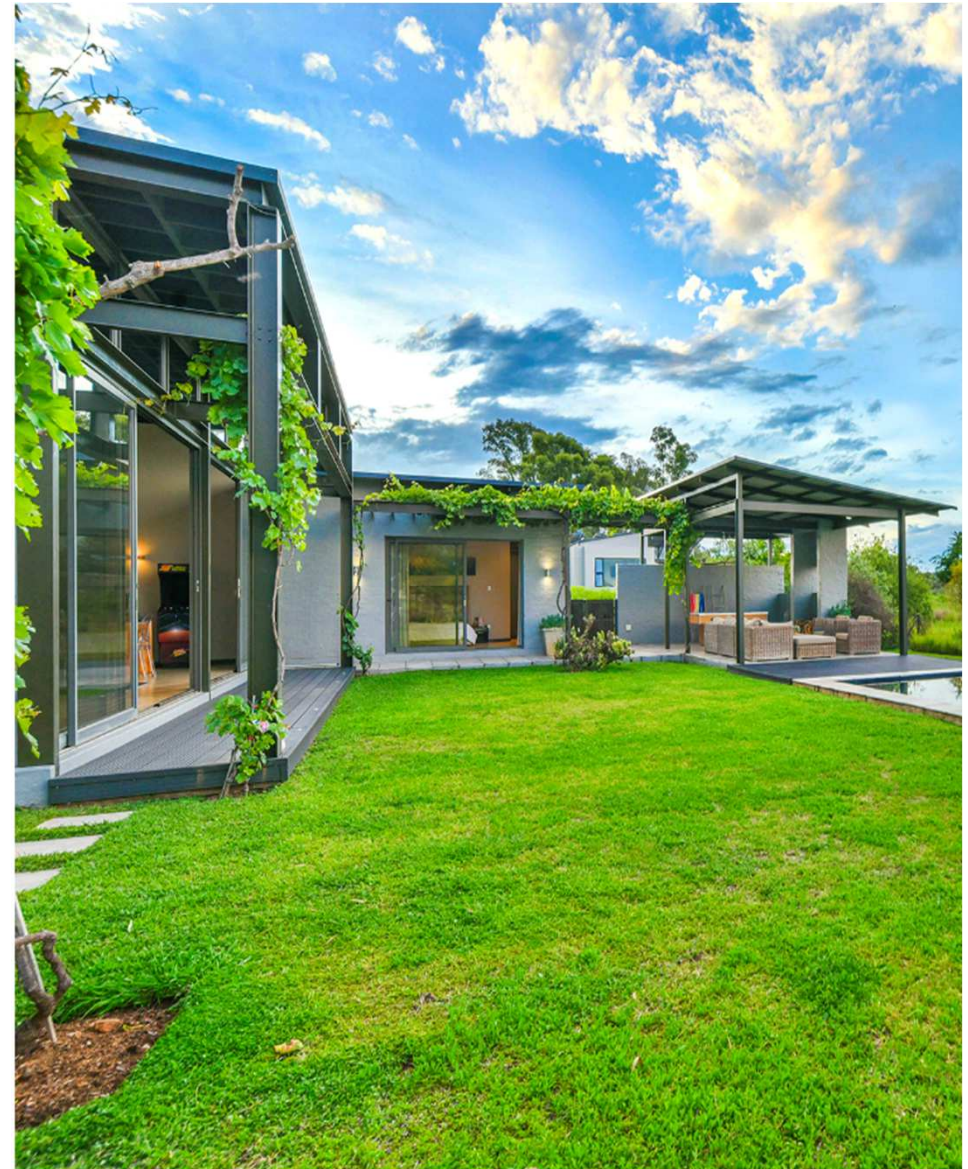
7 Passive Design Principles - Windows

Orientation



In the southern hemisphere,
Summer - sun rises in South East and sets in South West
Winter - sun rises North East and sets in North West
(Azimuth Calculators for exact altitude, time, date etc)

The orientation of a building plays an important part in ensuring the passive design principles work



5. WATER COLLECTION

Each house must make provision for a mandatory 20,000 to 80,000 litres of rainwater storage, depending on the house’s roofed area (see Table 1 below), for use either as garden water or for integration into the house water system (e.g. for flushing toilets). A minimum of 75% of the entire roofing surface must form the “catchment area”. Please ensure this is considered both aesthetically and practically as part of the house design process.

“Stormy grey” JoJo™ tanks are allowed, as are corrugated iron tanks so long as they are placed in a considered manner. All other tanks need to be screened or clad in a MAC approved position and finish. Underground/ submerged reservoirs are permitted. The tanks’ position must take into consideration the aesthetics and the guttering and downpipe practicality.

Please note that open water storage (e.g. in pools or ponds) will not be approved as a part of the required stored water volume.

ROOFED AREA OF HOUSE (metres squared/ m²)	VOLUME OF WATER STORAGE REQUIRED (litres/l)
150 – 400 m²	MINIMUM 20,000 l
400 – 500 m²	30,000 l
500 – 600 m²	40,000 l
600 – 700 m²	50,000l
700 – 800 m²	60,000l
MAXIMUM 900 – 1,000 m²	80,000 l

Table 1: Volume of water storage required per roofed area of house



Figure 10: Rainwater storage

6. STAFF ACCOMMODATION

Each property is required by Tshwane by-laws to provide accommodation for at least one domestic worker.

Staff accommodation needs to be a minimum of 20 m² in total, with direct access to the bathroom, natural light, and ventilation.

7. COURTYARDS

We encourage a break-up of the house's bulk into separate structures interlinked by courtyard gardens. For example, a living area with bedrooms, a study or office, a guest room, a domestic worker's cottage, garages, and store rooms, all separated into different buildings across the erf, but perhaps linked by low walls to form courtyards.

The courtyards have three main purposes:

- To create wonderful landscaping opportunities.
- To provide privacy.
- To contain pets.

8. DEVELOPMENT POCKET

Only 50% (75% for stands smaller than 2000 square meters) of the erf may be developed. This is termed the "development pocket" in our *Conditions of Establishment*, and consists of all buildings, pool/s, driveways, paths, lawn, gardens, fenced in areas. The other 50% must consist of only grasses and trees as defined within the *Landscaping Regulations*.

The minimum permissible house area is 150 m².
The maximum permissible house area is 1,000 m²



Figure 11: Example of a courtyard

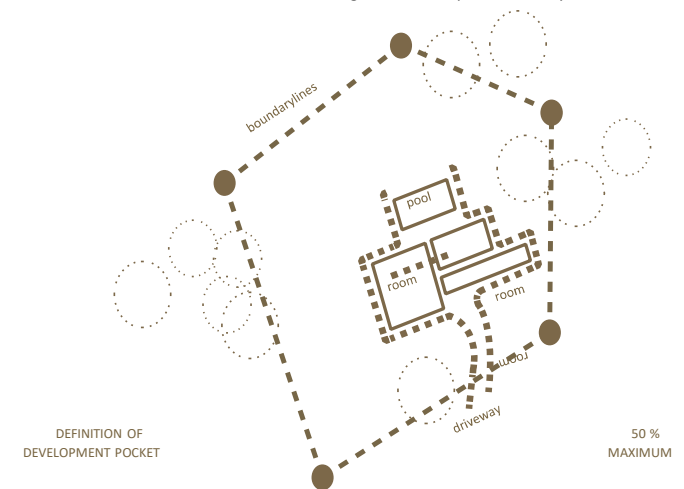


Figure 12: Definition of a development pocket

9. CARPORTS AND GARAGES

The number of vehicles, motorised or non-motorised and which for the purposes of this clause shall include trailers, caravans, boats, and other wheeled devices of comparable dimension, permanently or regularly housed on any erf shall not exceed the number of garages or carports erected upon that erf.

10. BUILDING MATERIALS

We encourage the use of alternative building materials and technologies. Examples of turf roofs, rammed earth, and light steel frame are becoming more and more common. Locally sourced stone, FSC-accredited timber, low carbon building materials, and finishes such as alien eradication timber, recycled materials, and bamboo, to name a few, are recommended.

11. DRIVEWAYS

Driveway material is to be presented to MAC for approval. Examples of permissible driveway surfacing include tarmac, cement-coloured concrete pavers and cobbles, light coloured small gauge 'pink' gravel, and grass blocks.

A detailed driveway design is required.

- If using gravel, the first three metres of the driveway and swale crossing will be grass blocks (storm water swales are responsible for discharging storm water)
- Design to accommodate all vehicle access to the property without impeding the flow of storm water or having vehicles encroach upon the grass verge



Figure 13: Acceptable driveway surfacing

12. EXTERNAL ELEMENTS

Alarms

Only silent alarms are allowed. (Enquire with estate security to have your alarm linked to the onsite alarm monitoring service)

Artwork (external)

MAC approval is required before placing art on the outside of your property. Keep in mind:

- Monaghan Farm's ethos
- Art position on your property (strategically placing to create focal points complementing architecture and landscape)
- Neighbours' line of sight
- Monaghan Farm colour palette. Consider fading.
- Shape and size

CCTV

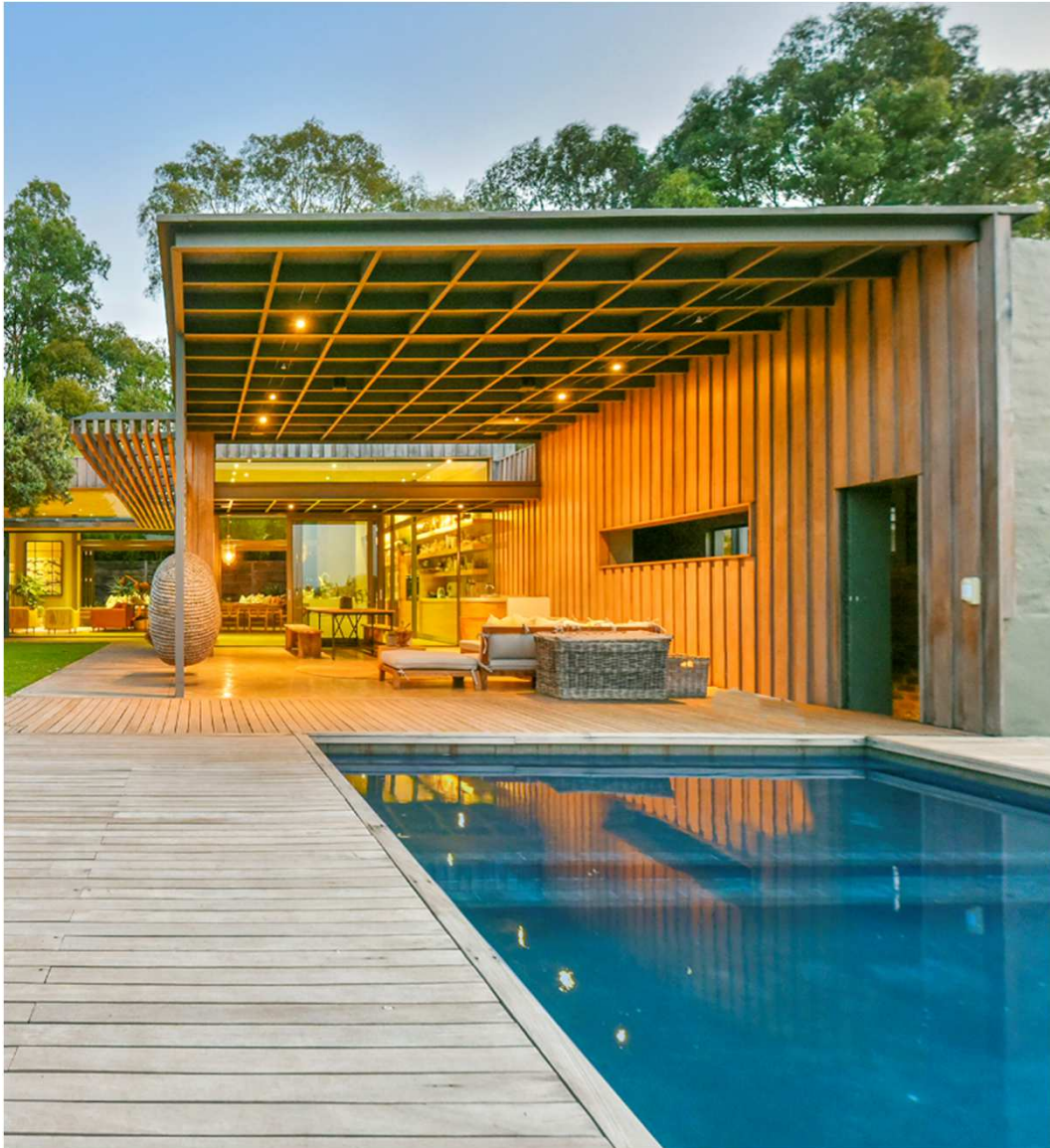
CCTV installations must be painted to match the surface upon which they are placed (wall or roof).

Fences

Fence choices must enhance the property's architecture and not be an afterthought. Fence position and design must be clearly indicated on the architectural site plan and landscape plan, and be approved by MAC before installation. Please refer to *Monaghan Landscaping Regulations*.

Three categories of fences permitted:

1. **Fences up to 900 mm maximum height:** Tensioned wire mesh fence. (see reference samples with specifications, *Annexure C*) No deviation from this is permitted.
2. **Fences up to 1.2m maximum height:** (see reference samples with specifications, *Annexure C*) No deviation from this is permitted
 - Gumpole and mush fence
 - Square timber and mesh fence
 - Steel fence (can also be used for pool fencing)
3. **.Fences up to 1.5m maximum in height: Only ClearVu fencing is allowed.** (see reference samples with specifications, *Annexure C*) No deviation from this is permitted



Fibre to the home (FTTH)

Fibre internet connection is available. Please enquire with the service provider for home installation requirements.

Fire pits

Please refer to *Part 2: Landscape Regulations* for further information.

House numbers

House numbers are provided by Monaghan Farm. No custom designs are allowed.

Playgrounds, etc.

Playgrounds, temporary swimming pools, jungle gyms, trampolines, and the like need to be screened off and not be visible from any angle on the farm. Approval from MAC is required before installation. (Please refer to *Part 2: Landscape Regulations* for further information.)

Satellite dishes

Satellite dishes must be painted to match the surface upon which they are placed (wall or roof).

MAC must approve any satellite dish's position on site.

13. SWIMMING POOLS

Please consider the type of pool to be built, including paving, colour, backwash, etc. Pool filtration systems and pumps must be screened. Pools may not be drained or backwashed into the sewage system. The pool fence to be in accordance with the National Building Regulations (Pool: SANS 10400 Part D; Fence: SANS 1390)

See steel fence under item 12 for approved fencing; frameless glass may also be used with bottom fixing mechanism.

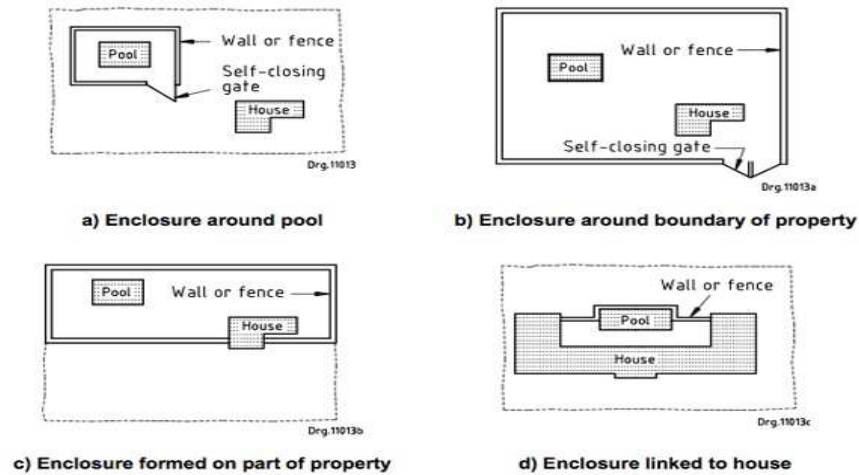
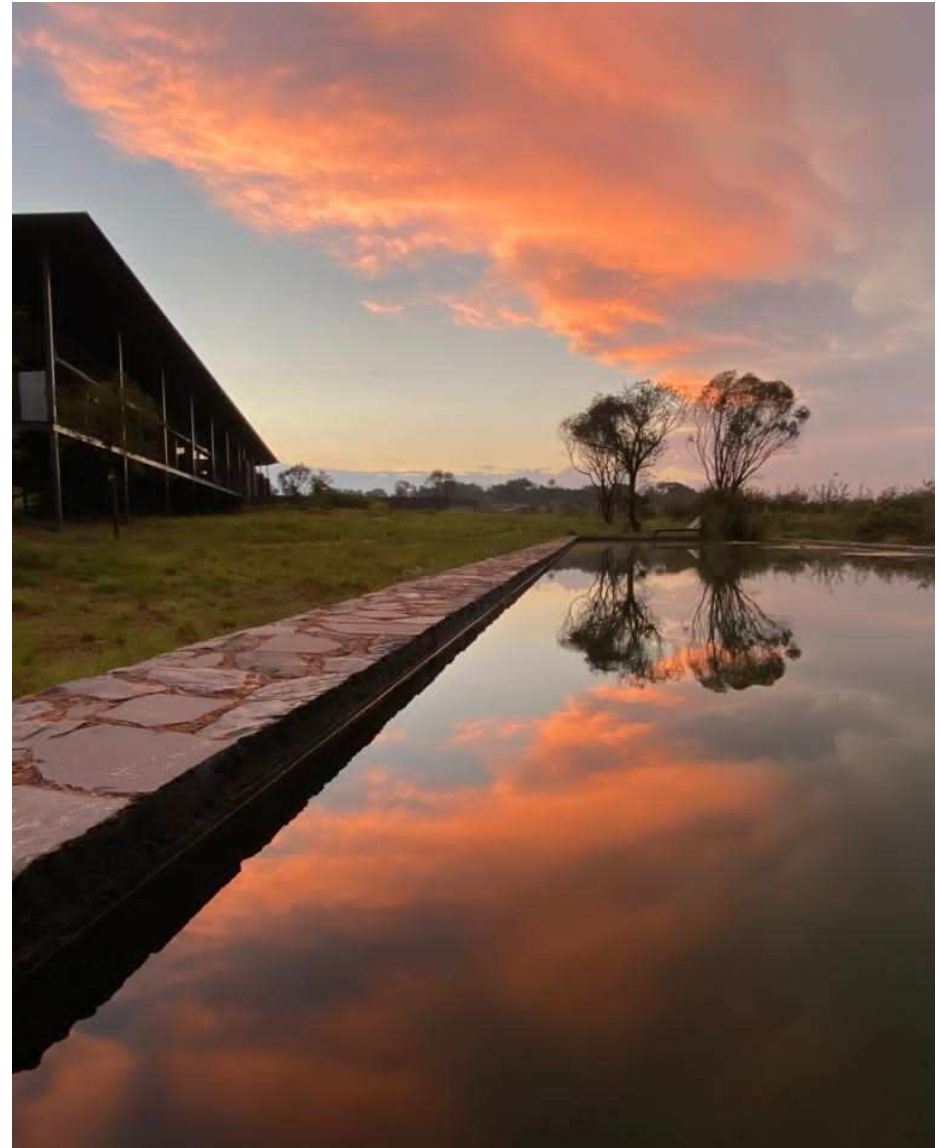


Figure 14: Examples of pool fencing



14. LIGHTING

Monaghan Farm promotes and imposes The Dark Sky Policy. To minimise light pollution's harmful effects, lighting should:

- Only be on when needed (occupancy sensors)
 - **No day and night switches**
 - **No lit-up trees**
- Only light the area that needs it (to be kept to a minimum)
- Be no brighter than necessary
- Minimise blue light emissions
- Be fully shielded. Light sources should not be visible. Only downward facing light installation/fittings may be used.
- External lighting: The maximum height of installation is 1.2m from ground level.
- Avoid the “lantern” effect of high-level, clerestory windows
- Where in a courtyard, lights may not be higher than the courtyard walls that encloses it. (The same rule applies with lights shining downwards, light sources may not be visible.)

These regulations exclude public and security areas like: Main entrance, Service entrance, Clubhouse, and Sports' facilities



15. ADDITIONS: RENOVATIONS, EXTENSIONS, EXTERNAL ELEMENTS (PV, SOLAR PANELS, PLAY EQUIPMENT ECT.)

No alterations or addition shall be permitted and nothing may be further erected to existing homes whether temporary or permanent, **without written application having been made to, and approval granted by MAC**, and which restriction shall also apply in respect of external play equipment, jungle gyms, statues, garden sheds, air conditioners, solar devices, embellishments, and their like.

- **Submissions and approvals**
 - Any exterior renovation or additional build: Structures must be drawn up by a registered SACAP professional.
-
- **Guidelines for additions, alterations, and renovations to match existing:**
 - Architectural language of existing property
 - Property scale
 - Building materials and finishes to match existing
 - Roofing: angles, size, materials
 - Features
 - The façade's orientation with the major area of the building's glass ideally between 345° and 15° (approximately true north) and the façades facing east, west, and south should be provided with minimum fenestration for compliance with ventilation and lighting.
 - External elements, requiring MAC approval include however, are not limited to:
 - PV panels
 - Solar panels
 - Pools
 - Aircon and evaporative coolers
 - Security cameras
 - Satellite dishes
 - Any change in materials/and or paint colours
 - Any landscaping elements

Except for alterations and additions exceeding 150m² all approved projects are to be completed within six months, recorded from date upon which work commences on the property.

Additions and alterations over 150m² will be eligible for a special dispensation of an extended build period, to be motivated by the SACAP professional and MAC approved.

PART 2: MONOGHAN FARM LANDSCAPING REGULATIONS

Information collated from: Architectural Rules and Regulations (ARR); Architectural & Landscaping Rules and Regulations (A&LR); Environmental Management Plan (EMP)

INTRODUCTION

Monaghan Farm is a showcase of architectural excellence and environmental sustainability.

Our active Monaghan Aesthetics Committee (MAC) works with SACAP registered architects to place single storey homes within the natural landscape, taking into consideration our wonderful yet dramatic weather patterns, renewable energy consumption, ethical sustainability, and client needs. The *Architectural Regulations* promotes architecture which imbues honesty, integrity, and appropriateness, and includes approaches that are relevant to both time and place. In addition to these guidelines, we also promote a culture of resource conservation. Although homes on Monaghan Farm are connected to Rand Water, it's mandatory for each home to make provision for 20, 000 to 80,000 litres of rainwater storage, depending on the home's scale.

Monaghan's landscaping should be seen within the context of the Farm's overall aesthetic and conservation philosophy— to sustainably develop with minimal negative impact on the landscape and natural ecological systems.

Monaghan is in an area of grassland, the Egoli Granite Grassland (EGG), second only to Fynbos in its biodiversity. But, as a result of urbanisation, invasive species, and poor land management, this grassland is considered endangered. Currently, there are no areas within this biome protected by legislation. Therefore, all plant choices, and their impact on the surrounding undeveloped pockets within Monaghan, need to be carefully considered.

WE SAY “NO” TO:

- Formal gardens outside of screened courtyards – these may not be visible from main pathways, roads, etc.
- Tropical gardens outside of screened courtyards – these may not be visible from main pathways, roads, etc.
- Grecian urns outside of screened courtyards – these may not be visible from main pathways, roads, etc.
- Visible play areas
- Trendy affectations,
- Water hungry gardens
- Pretentious gardens and water features
- Over-treeing the property and changing it from a grassland with thickets and interspersed trees to a forest
- Visible vegetable gardens
- Large expanses of annuals
- Monoculture plant choice
- Aggressive self-seeding plants not on the approved planting list, for example, Gaura

WE SAY “YES” TO:

- Saving the endangered Egoli Granite Grassland.
- Courtyard gardens which allow design choice flexibility
- Indigenous gardens
- Plants endemic to the EGG
- Subtle planting appropriate to the environment

Sustainable design and good gardening practices, including:

Xeriscaping and xeriscaping principles

Hydro-zoning

Ecological gardening

Correct watering principles

Planning for the future

Knowing your plants: their growth patterns, longevity, and water requirements

Knowing your root systems

Capturing water

Redirecting water to prevent erosion

Plants that don't need to be replaced

Water sustainability off the municipal water grid

South African Council for the Architectural Profession

Cadman, M, De Villiers, C, Lechmere-Oertel, R, and McCulloch, D, 2015, *Grassland Ecosystem Guidelines: Landscape Interpretations for planners and managers*, South African National Biodiversity Institute (SANBI)

Guidelines for landscape plans & landscape plan requirements

All erven must have an approved **landscape plan**.

A landscape plan for approval must include a site development plan (SDP) of the entire erf showing the built house's footprint, the courtyards or development pocket of the house with paths, pool, walls, water features, the position of trees and bushes, as well as a full list of all plant species.

The following needs to be included in the landscape plan:

- Development pocket
- Berms
- Swale crossings
- Storm water flow
- Lawns
- Courtyard gardens' position
- Courtyard layout and planting
- Edging (of lawns and garden beds)
- Fences
- Retaining walls
- Firepits
- Garden beds (should be in courtyards)
- Grasses (in both developed and undeveloped pockets)
- Pathways
- Plants and trees: Position, diagram and list in the legend all proposed planting, including planting in the courtyards. Tree and shrub number is to be included as found on the approved tree and shrub planting list (see *Monaghan EGG Tree and Plant List*, *Monaghan Tree and Plant Development Pocket List*, *Monaghan Courtyard Garden List*, *Wetland Plant List*).
- Playgrounds (including jungle gyms, trampolines, and temporary pools)
- Swimming pools (including wetland ponds for natural filtration pools)
- Vegetable gardens
- Screening plants, where needed, for playgrounds, vegetable gardens, etc.
- Scale

Reasons for upfront landscape planning:

1. Proper budgeting
2. Efficient planning of trees, gardens, fences, retaining walls, and playground equipment, etc. All additional items not included in Architectural plan submissions.
3. Adequate stormwater management
4. Opportunity for upfront completion of certain landscaping elements, for example, berms can be shaped and seeded, or key screening shrubs and trees can be planted while your house is being constructed.

Note: There might be adjustments to the landscape plan once building is completed. A revised plan must be submitted reflecting any changes.

Landscape plan requirements

1) Development pocket

Only 50% of the erf may be developed (please see *Architectural Regulations*). This 50% development pocket consists of all buildings, driveways, paths, lawns, courtyard gardens, pool/s, and fenced area. The remaining 50% is made up of only grasses and trees from our indigenous/endemic plant list—the undeveloped pocket or wild portion.

Mark up the development pocket on your landscape plan, as per the example (see Figure 1 below)

On your property, the development pocket must be demarcated by edging, fencing, or other approved markers, to prevent development pocket creep into the undeveloped pocket.

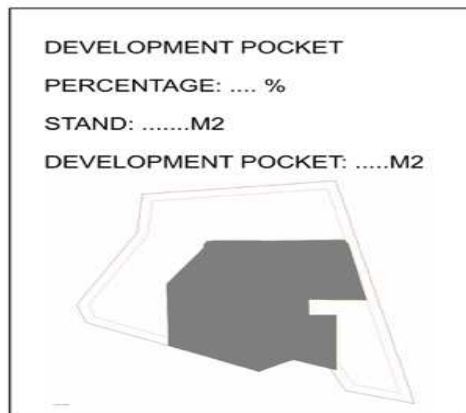


Figure 1: Diagram of the development pocket

2) Undeveloped pocket

The undeveloped pocket/wild portion which falls outside the development pocket, must cover 50% or more of your erf and must be unfenced. This pocket should be populated in a natural manner, with plants endemic to the EGG in an attempt to re-create the biodiversity. Grass may not be cut shorter than 150mm and may only be cut seasonally. This portion should form a fairly consistent connection between erven and the common open ground—it should not consist of a forest of trees. However, trees from the plant list may be positioned to screen neighbours while not blocking views from neighbouring stands.

Alien vegetation control classified invader species must be eradicated and controlled throughout the property according to the *Conservation of Agricultural Resources Act, No. 43 of 1983*. Owners of individual stands are responsible for the control and eradication of alien vegetation listed in the Act within their property (see *Monaghan Exclusion List*, and *Invader Species List*).

Natural wildlife corridors should be created, wherever possible. Landscape plans should try to retain small creatures' natural habitats, food plants, and cover to encourage them to live and move about unhindered in your property's wild portion.



3) Berms

These may be used on both pockets but must be naturally shaped **with a maximum 30° slope** and a maximum 1.5m height. While ensuring the sides are not too steep, erosion prevention measures, such as terracing and planting suitably binding vegetation, should also be implemented soon after the berms are formed. Berms should be correctly and clearly marked (to scale) on the landscape plan with the width required for the slope to achieve its planned height. The height must be depicted in half-metre contours and the berm width specified to ensure sufficient space is available for the planned berm.

NOTE:

- A berm 1.5m high requires a width of 6 to 7m in order to have a 30° slope to achieve a sufficient plateau for grass or trees to be planted upon.
- Berms should be used judiciously for screening, not for soil dumping, and should be naturally shaped.
- All berms are to be approved by MAC prior to planting.

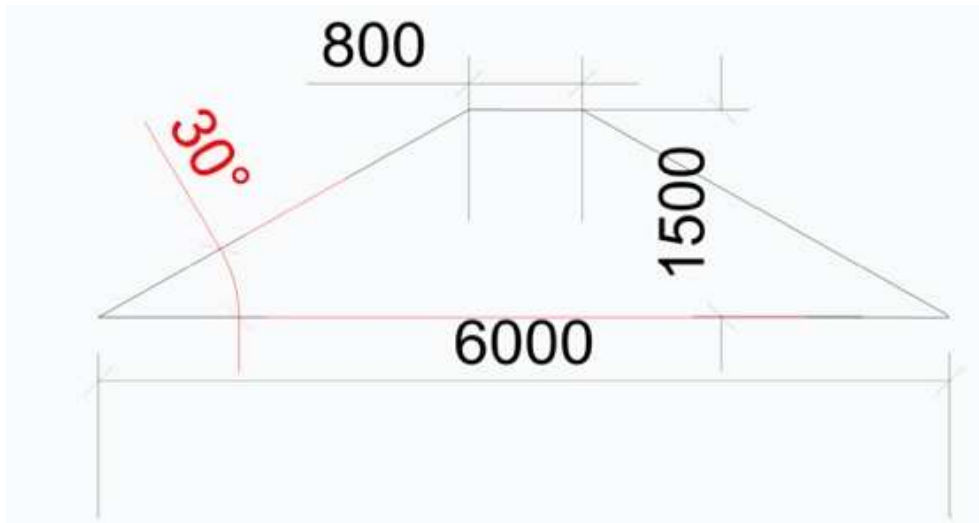


Figure 2: Example of how a berm is represented on a landscape plan

4) Swales (falls under, *Architectural Regulations*)

The swale is the shallow valley that runs alongside the roads in Monaghan, to direct rainwater and prevent flooding. Swales are planted with *Cynodon Dactylon* and are to be kept free from other vegetation and debris.

Your landscaping should not impact on the swales **under any circumstances**. Penalties for the cost of cleaning the swales will be levelled at transgressors.

Where driveways need to cross the swale, a detailed drawing of this crossing must be submitted on the architectural plans. The crossing should not impact the swale's shape nor the flow of water through it.

The swale crossing is the responsibility of the architect as per the *Regulations* and should appear on the building plan.

5) Stormwater

Both your landscaping and building plans must accommodate and demonstrate stormwater flow and management.

6) Courtyards

We encourage a break-up of the house into separate structures interlinked by courtyard gardens. You may, for example, have a living area with bedrooms, a study or office, a guest room, a domestic worker's cottage, your garages and storerooms, all separated into different buildings across the erf, but perhaps linked by low walls to form courtyards.

1. The courtyards have three main purposes:

- i. To create wonderful landscaping opportunities. Whilst we don't encourage the use of non-indigenous plants, we do allow them within the courtyards' confines. **However, this excludes trees, other than fruit trees or shrubs, which exceed roof height and are visible from the surrounding areas. It also excludes aggressively self-seeding plants like gaura.**
- ii. To provide privacy. Courtyards are the perfect place to put swimming pools, outside showers, sculptures, private green lawns, playgrounds, washing lines, etc.
- iii. To contain pets.

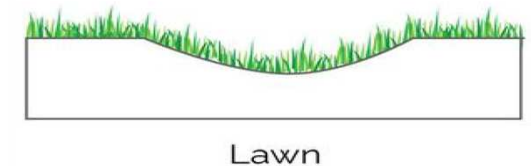


Figure 3: Diagram of a swale

7) Driveways and parking (falls under, *Architectural Rules and Regulations*)

The choice of driveway material is to be confirmed by MAC. Examples of permissible driveway surfacing include tarmac, cement-coloured concrete pavers and cobbles, light coloured small gauge 'pink' gravel, and grass blocks.

Provision must be made for as many carports and garages as there are cars.

Note: The architect is responsible for supplying correct information and specs for the driveway and parking.

8) Edging

All lawn and garden beds are to be edged. The intention of edging is to prevent plants and root systems from spreading into grassland and to define the manicured area permitted to be cut short.

The following are acceptable edging;

- i. Metal to appropriate depth based on choice of lawn or ground cover (see Figure 4 below).
- ii. Cobbles which must be cemented in (see Figure 5 below).



Figure 4: Metal edging



Figure 5: Cobbled edging

Note: Kikuyu MUST have edging reaching a minimum depth of 150mm below the soil level and/or either a pathway or garden bed between it and the undeveloped pocket.

9) Fences

No physical barriers may be erected on the erf boundaries except for around the development pocket. The approved height of any fence is anything up to 1.5 m. It's critical that the fence position must be shown on your landscape or architectural site plan. For additional information on style and dimensions, see, *Architectural Regulations*.

10) Retaining walls

Retaining walls are to be specified on plan, including length, width, height, and finish. As per the *Architectural Rules and Regulations*, no face brick is permitted.

11) Fire pit

Fire pits should show an area clear of any vegetation to prevent being a fire hazard as well as a barrier to prevent fires from spreading.

12) Lawns

Lawns must be contained within walls or by means of an edge, for example, metal, to prevent the spread of the grass. **Due to the aggressive nature of Kikuyu root systems, Kikuyu is permitted as long as it has edging reaching a minimum depth of 150mm below the soil level and/or has either a garden bed or pathway between it and the undeveloped pocket.**

13) Lighting

Refer to *Architectural Regulations*.

14) Plant choice

All plants must be included and specified on the landscape plan's legend. The tree and shrub number should be included as found on the approved tree and shrub planting list (see *Monaghan EGG Tree and Plant List, Monaghan Tree and Plant Development Pocket List, Monaghan Courtyard Garden List, Wetland Plant List*).

Courtyards may be non-indigenous; however, with regard to trees, only fruit trees or indigenous trees from the approved tree list are permitted within the development pocket (see *Monaghan Tree and Plant Development Pocket List*).

All plants chosen to be planted outside the confines of a high walled (1.8m minimum) courtyard must be from the approved plant list. Prolific, self-seeding plants not on the plant list can only be planted in a high walled courtyard. However, a garden may consist of indigenous grasses alone. Natural filtration pools may only use plants that are indigenous (see, *Monaghan EGG Tree and Plant List, Monaghan Tree and Plant Development Pocket List, Monaghan Courtyard Garden List, Wetland Plant List*).

Note: Careful consideration has gone into the plant lists. Please do not depart from them.

15) Tree choice

All trees must be drawn to scale on the landscape plan and included in the legend. Scale should be based on their size at maturity to allow long-term planning and to prevent future problems with roots systems, etc. The tree and shrub number must be included as found on the approved tree and shrub planting list (see *Monaghan EGG Tree and Plant List*, *Monaghan Tree and Plant Development Pocket List*, *Monaghan Courtyard Garden List*, *Wetland Plant List*).

Trees are to be chosen from the Monaghan Farm approved tree list (see *Monaghan EGG Tree and Plant List*, *Monaghan Tree and Plant Development Pocket List*).

When choosing a tree:

- I. The views and privacy of surrounding stand owners must be considered.
- II. No large rooted trees shall be planted within the area of a servitude or within 2m thereof.
- III. Fruit trees are permitted in the development pocket but are the only non-indigenous trees allowed.
- IV. Trees cannot be used to alter the inherent grassland nature.

16) Paths

Paths may be laid through the stand's wild portion but will be calculated as forming part of the development pocket area.

17) Playgrounds

Jungle gyms, trampolines, and temporary swimming pools need to be screened off and may not be visible from any angle on the farm from installation. Large plants must be used to provide instant screening.

18) Swimming pools

Consider the type of pool to be built, including paving, colour, backwash, etc. A wetland pool is a wonderful way of integrating the environment into your recreational life, the water being so clean and pure you can actually drink it. Consideration must be given to the impact of a permanent pool fence with a self-closing, self-locking gate—perhaps a walled pool with a separate entertainment area is an option?

Pool decks must be in natural timber or wood substitute.

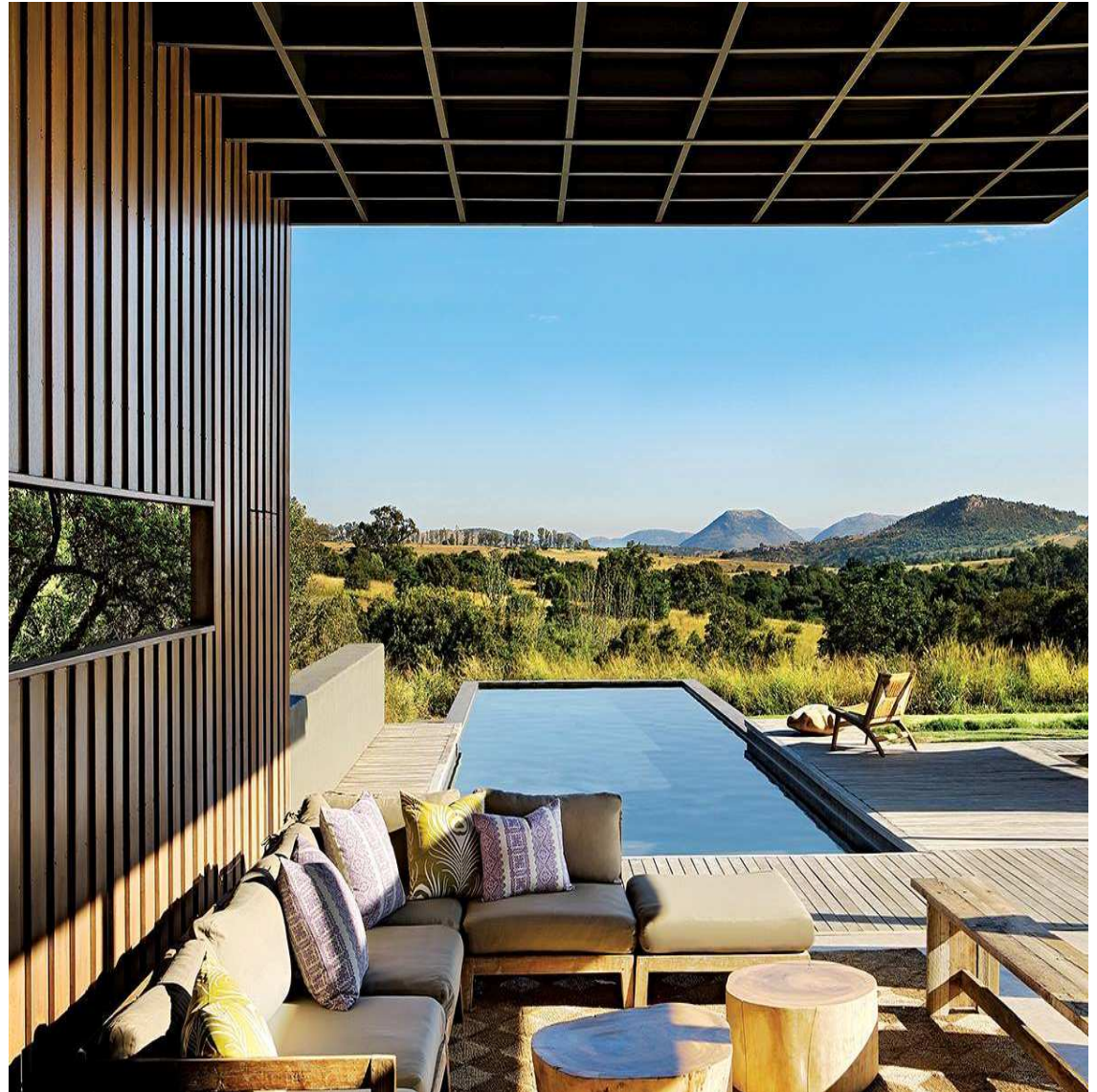
Pool filtration systems and pumps must be screened with either natural stone walling or a masonry wall to match the main house walls to comply with Council regulations and by-laws.

Pools may not be drained or backwashed into the sewerage system (EMP) and thought should be given to the flow of backwash water.

Safety requirements must be incorporated into the architecture plan in accordance with the relevant by laws (SANS 10134)

Note: Natural filtration pools must refer to the relevant plant list for permissible plants to be used in the filtration ponds. Only indigenous plants are allowed, see *Wetland Plant List*.

For further information, see *Architectural Regulations*



19) Design points

Avoid straight lined planting along erf boundaries or any planting design that accentuates the artificialness of the erf shapes within a natural setting.

Plant diversity: There's an opportunity to plant and develop diversity throughout the erven and assist in the recovery and protection of the EGG.

Landscaping should be considered in two distinct forms—that which falls within the development pocket and that which falls within the wild portion.

Flower beds: We recognise that many people would like to have a portion of their property with short green grass and perhaps a veggie patch and flowerbeds, but this must be accommodated within courtyards and limited edged garden beds within the development pocket. Style should lean towards the natural— **avoid** over-formalised garden beds with hedges and symmetrical plantings.

Non-indigenous flower beds should be screened within high (minimum 1.8m) courtyard walls.

The grass in the wild portion and on the berms **should not be cut below 150mm to ensure the grasses' and the berms' success.**

20) Rehabilitation

All areas disturbed by berming or building is to be seeded or planted within a month of the build's completion. Start with a **Biomosome®Reclamation** (Monaghan mix) and combine/or follow with **Biomosome® Wildlife** mix to begin recuperation and to prevent erosion.

Should completion of the building or the disturbance be outside of the growing season, then planting should be completed by the start of the following September.

Note: Rehabilitation on completion of works

The contractor must clear away and remove from the site all construction materials such as paint, surplus materials, foundations, plumbing and other fixtures, rubbish, and temporary works of every kind. Once the rubble is cleared, all disturbed areas must be graded and scarified to restore the ground to its original profile as near as practicable. Disturbed and compacted areas must be ripped to a depth of 250mm in two directions at right angles. Topsoil and mulch must then be introduced and the area must be fertilised and seeded with an indigenous reclamation mix or Biomosome® Wildlife mixture seed mix. Where necessary, damaged areas should be cordoned off to enhance rehabilitation. Loose branches and cut grass can be laid over rehabilitated areas to retain moisture and prevent wash away.

21) Completion of landscaping for sign off

To achieve sign off, the following elements must be completed:

- I. Berms should be shaped and seeded. **Note: If sign-off is mid-winter and the berm is not planted, the berms must be covered with fabric to prevent erosion and soil blowing away.**
- II. Swales completed according to specifications on plan.
- III. Lawn and all edging must be installed.
- IV. Driveways completed.
- V. Any proposed garden beds not confined by a wall (courtyards created by screening shrubs and berms) **must** be edged and edging must be installed.
- VI. Installation of fences.
- VII. Rehabilitation of all areas affected during building.

22) Landscaping to be completed over time

Planting of beds and trees may be completed in phases but **must be in accordance** with the approved landscape plans as the position of trees can impact surrounding views.

All changes to the landscape plan must be noted and submitted on a revised landscape plan prior to implementation. This landscape plan will be referred to on the sale of property at which time any debated discrepancies will have to be corrected prior to clearance by the Home Owners' Association (HOA).



Monaghan Farm Landscape Principles

Introduction and background

Monaghan Farm promotes simple sustainable living in beautiful surroundings on the city's outskirts. Homes are understood within the landscape's context, with consideration for dramatic weather patterns, and sensitive to energy consumption, sustainability, and client needs. The homes must suit the environs and not be slaves to fashion.

- Colours:
Tone in with the surrounds
- Materials:
Natural, ethically sourced, sympathetic to the surrounds, for example, gravel driveways, grass blocks, rough plastered walls, stone feature walls, and wooden finishes
- Architectural features:
Stone walls, plaster, large verandas, and single stories which blend into the landscape
- Style:
Unassuming, subtle, without edifice or flash
- Focal points
Few focal points, namely trees, and/or pots
- Vistas
Open, to enjoy the magnificent views and Highveld sunsets
- Formality
Kept to a minimum as over-styled and high maintenance gardens **do not belong** in Monaghan

Consequently, in this context, landscape planning is core to completing the design. The estate's design will be enhanced if the hardscaping of buildings, their materials, features, and style, is complemented by the appropriate garden style.

The aim of this master plan is to provide guidelines to adjust, enhance, and maintain that which has already been achieved over the past few years and assist new landscapers to create experiences which fall into this philosophy.

The brief must be cognisant of water restrictions and environmental conditions that will complement and enhance Monaghan Farm.

Key concepts in landscape planning

- Hydro-zoning & irrigation
- Appropriate landscaping style
- Ecological gardening
- Plant choice
- Planning for the future
- Tree and plant list: *Monaghan EGG Tree and Plant List, Monaghan Tree and Plant Development Pocket List, Monaghan Courtyard Garden List, Wetland Plant List.*

Hydro-zone planning

Before planning the garden, decide and carefully plan the watering zones.

A garden can have four hydro-zones:

1. High water usage zone: Entrances and focal points, plan at 5%
2. Moderate water usage zone: Vegetable gardens, plan at 10%
3. Low water usage zone: Lawns plan at 15%
4. No water usage zone: Xeriscaping, plan at 70%

This approach still allows any gardener to have an area for high water consumption plants, but at the same time results in water savings of between 30 and 80%

Note: Install your irrigation systems according to the hydra-zones

Landscaping style

Entrances:

May be formal but with limited structure and symmetry.
Plants with colour, which may need additional watering, may be used prudently.
Avoid hedges and over-styled entrance gardens
Avoid pretentious, flashy entrances
No topiarised balls are allowed.
Hydro-zone 1

Focal points:

May be semi-formal with limited structure and plants with colour
May need additional watering.
Hydro-zone 2

Courtyards; INTERNAL WITH NO VISIBILITY

The sky's the limit with style; however, no plants off the plant list may grow higher than the screening wall or building.

Low-walled courtyards, screened courtyards, edged garden beds (plants are visible):

Structured informality
Medium to low water requirement Hydro-zone 3

Peripheral areas:

Orchestrated natural style to blend in with natural grassland
Limited/no additional irrigation required Hydro-zone 4

Concepts not allowed:

Water hungry garden designs
Pots harking back to Grecian times Visible sculptures

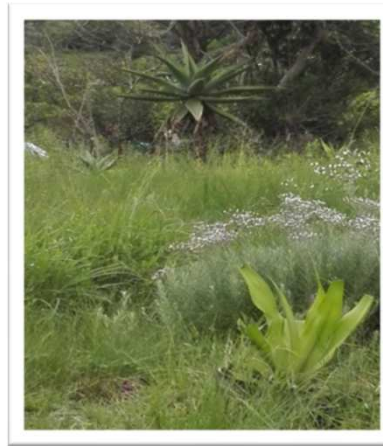


Figure 6: Landscaping style examples



Ecological gardening

Plan your garden according to ecological gardening practices:

Ecological gardening is gardening with waterwise, organic, and carbon sequestering principles in mind. In ecological gardening, we mimic nature's systems.

These are some of the key practices which relate to garden design:

1. Incorporate xeriscaping principles which is the practice of designing landscapes to reduce or eliminate the need for irrigation. Using plants common to the Highveld, especially to the EGG, will facilitate this.
2. In planning your garden, think about planting low-to-the-ground and medium size plants beneath taller plants. Incorporate trees, perennials, flowers, grasses, and maybe even a few harmless weeds into the mix, just like nature!
3. Plants, plants, and more plants! When we plant the ecological way, we mimic nature. Nature never grows in monoculture—the diversity of plants above ground improves the diversity of microbes and fungi underground.
4. Reduce lawn to a minimum.
5. Combat erosion. Plan how rainwater flows over your property and make sure that soil's not exposed to runoff.
This is directly related to berm shaping. A poor slope results in soil erosion and a poor growth environment for grass. The long-term effect is poor water retention and carbon sequestering abilities.
6. Plan well-defined paths and use stepping-stones to reduce soil compaction.
7. Cover up: In areas where you don't plan to grow plants, keep the land covered. Cover mulch, straw, leaves or compost over the soil. This reduces the loss of carbon molecules from the soil into the air and keeps soil micro-organisms happy, maintaining moisture, and moderating soil temperatures. Cover protects valuable humus from erosion.

Plant choice & planning for the future

With all plant choices, whether it be tree, grass, or perennial, positioning and growth patterns are integrally linked. While there are a large number of trees on our approved plant list, please pay special attention to the following guidelines when making your choice:

1. Select plants which will enhance the EGG, see *Monaghan EGG Tree and Plant List*.
2. Know the plants, and understand their growth patterns and root systems. This will determine what can be planted where and links to long-term planning.
3. Think long-term. Will the tree get too big for that spot or block my neighbour's view? What will be the effect of the root system in the future on the surrounds? Paper barks and Celtis will lift driveways and paving long-term, cabbage trees can break walls. What will be the effect of the crown (the shade pattern) in the future? Will that plant self-seed and escape into the EGG and become a problem in the future?
4. Think about sustainability as well as durability. Will this plant look good two to three years from now? An excellent example is Cape thatch which looks good for two seasons, but doesn't handle cut back well and gets dead patches. In a few years, it will need to be replaced. Hence this plant, while a good pioneer, lacks sustainability and durability. Specifically for courtyards, will that tree overwhelm the space? Will it become diseased due to the unnatural environment? Olea might be happy with some shade, but generally they don't grow in thickets or forests and hence enjoy free flowing air around them. Long-term, in courtyards, despite it being sunny, without knowledgeable care, they will become diseased and unhappy.
5. Seed patterns—are they aggressive self-seeders? Will they invade and have a long-term negative impact on the EGG? Some of these plants are on the *Monaghan Exclusion List* because of this.
6. Water requirements? You can group plants correctly if you know their original environment. Clivia and Arums both handle shade well, but Arums require moisture and Clivia require dry shade.
7. What is the environment you are planning to plant in? What trees thrive on Monaghan? Even within the EGG, you have a variety of biomes. Because a plant is endemic to the EGG, It doesn't follow that it will suit every spot in your garden—it merely means it will suit the spot closest to its natural environment. A south facing wall gives deep shade and is thus similar to forests. A north or west facing wall will have baking hot sun and retains the heat at night, similar to rocky north facing outcrops. The bottom of a hill will be a gathering point for water and can be seasonally flooded, similar to a wetland. Next to a tap will be moist because of water dripping, also similar to a wetland. Check whether the soil is clay or sandy or rocky.
8. The natural environment is varied. Plant a large variety of plants as this decreases insect infestations as well as improves the good micro-organisms in the soil (principle of ecological gardening and improving carbon sequestration in soil)

9. Tree and plant list

- *Monaghan EGG Tree and Plant List* consists of plants endemic to the Egoli Granite Grassland.
- *Monaghan Tree and Plant Development Pocket List:* Preferred plants that are indigenous and will not have a negative effect on the EGG with self-seeding and can be used in edged garden beds and courtyards with low walls or as screening shrubs.
- *Monaghan Courtyard Garden List:* Plants that do well in courtyards (high walls).
- *Wetland Plant List*, plants that may be used in filtration ponds.
- *Monaghan Exclusion List:* Plants that although not considered invader species, their seeding patterns can become a problem within the EGG of Monaghan in the future.
- *Invader Species List:* Common invader species found in Monaghan.

Please note, the plants and trees on the lists endemic to the EGG are Highveld plants and the development pocket list consists of plants which are either endemic or have a history of thriving on the Highveld, hence the majority are considered frost hardy. However, this does not guarantee the plant will survive or thrive. The microclimate of each area, soil preparation, and plant care all have a major impact on the plants' growing capabilities.

Please note: Careful consideration has gone into the various plant lists. Please do not depart from them.



Installation & maintenance of garden

Undeveloped pocket

- The undeveloped pocket must be rehabilitated to its original state once building is complete.
- It may be planted with bulbs and perennials from the appropriate list (see *Monaghan EGG Tree and Plant List*).
- The grass must not be cut in the first season in any reseeded/rehabilitated areas, apart from a required firebreak. Seasonally, thereafter, the grass can be cut to a minimum height of 150mm.
- The grass is not allowed to be cut more than twice a year, in March and August.
- Apart from a firebreak designated by MAC, grass cut and kept short is not allowed in the undeveloped pocket and will result in a penalty.
- Homeowners must keep their undeveloped (and developed) pocket free of invader species. If not, penalties will be levied. Please see *Monaghan Exclusion List*, and *Invader Species List*.

Berms

- Berms must be natural and blend in with the landscape. The surrounding hills should be the inspiration and guidance for the shape.
- They're not to be used as pseudo-walls.
- They're for screening where additional privacy is required.
- For a berm of 1.5m, you must have a width between 6 and 7m to allow for the correct 30° slope and a plateau sufficient in size for planting of trees and shrubs.
- If your house has been terraced in, the berm on the higher section must be terraced and separated from the lower slope to avoid excessively long slopes and erosion
- Once seeded, do **not** cut your grass for the first year. Berms can be cut seasonally after the first year but must be cut to a minimum height of 150mm.
- Mowing grass short and keeping it short like a lawn (unless in the developed pocket) is not allowed and will result in a penalty being levied.

See *Establishing and maintaining berms and grasslands* for a greater explanation

Gardens

- Gardens must be as per the approved MAC plan. **Any** alterations to this must be submitted for approval.
- Any changes without approval will have penalties levied.
- Plants chosen must be from the appropriate approved Monaghan list (see *Monaghan Courtyard Garden List*). If not on the list, please request approval.
- Any plants seen, not on the approved list, will be requested to be removed. If not removed, penalties will be levied.
- **Preparation is key and the foundation to any good garden.** You could plant a garden in extremely poor soil due to terracing. Plan for substantial amounts of topsoil, compost, and organic fertilisers to rehabilitate the soil. It takes hundreds of years to create a healthy, living topsoil and you're trying to do this in a short space of time! (Limit chemical fertilisers—while they have short-term growth benefits, these have a negative long-term effect on micro-organisms in the soil and the soil's carbon sequestering properties.)

Choosing and planting of trees

“The stability of a tree and its capacity for extracting an adequate supply of moisture and nutrients from the soil necessitate the development of a sturdy and effective root system” Hence a large tree, although considered not to have an invasive root system, can be a problem in the long term. As the tree grows to support its crown, the surface roots will increase incrementally in size and can lift paving and, if they find a gap, break through walls and pipes.

There are scientific calculations that determine how close you can plant a tree to your building or paving but these take tree crown, soil type, and infrastructure you wish to plant close to, into account.

“safe allowable proximity X soil factor X infrastructure = distance from infrastructure”

The simplest method is to err on the side of caution. Most root systems will be as wide as the tree's crown, if not wider. Therefore, plant the tree at least two-thirds of the crown's radius away from any buildings. So, when choosing a tree that you wish to plant close (1m or less) to a building, it's advisable to choose a tree which will have a crown no more than three metres wide at maturity. This then limits you to smaller trees and large shrubs.

Conversely, if you wish to plant a tree that will get to 12m high (most three storey buildings are 11m high) you will be choosing from medium to large trees. The root system will be at least 6m wide and therefore should be planted a minimum of 2 to 3m away from the building to not cause damage.

Poynton, R.J, 2001, *Tree rooting habits and their implications for the infrastructure of Rand Water*, Rand Water, Water Wise, p.1

Irrigation

Basic guidelines for established gardens:

1. Zones which require watering should be watered deeply and with days between watering (between 4 and 14 days as required by plant choice) rather than shallowly and often. This develops deeper root systems.
2. Lawns should be watered every three days for 10 to 15 minutes.
3. Never water in the early evening.
4. During restrictions, water within the allocated times allowed by law.

See *Irrigation principles* for more information.

Maintenance

1. Composting: Spring and mid-summer. Add compost to beds' surface and let nature take its course.
2. Fertilising, preferably organic:
Spring - high in nitrogen
Summer - general
Autumn - low in nitrogen, high in potassium and phosphates
3. Pruning:
Spring - late summer, autumn and winter flowering plants
Mid-summer - spring flowering plants
Autumn - dead or diseased plants only
Winter - fruit trees, deciduous trees, and shrubs
Note: For indigenous plants, wait until they have completed their cycle to cut down—many have seeds birds love, and/or many will reseed themselves.
4. Maintenance:
Digging over of beds? Never!

Establishing and maintaining berms and grasslands

What are the best practices in establishing berms and grasslands, and once established, how do we care for them?

Establishing berms

There are four S's for establishing berms: Shape, slope, soil, and seeding

- **Shape:** Be like nature...look to the mountains for inspiration, not a graveyard! You don't want berms that look like you have a couple of graves surrounding your property. You want mini hills, which undulate and blend seamlessly with the surrounding landscape. **That's your target.**
- **Slope:** A good slope is hard to find. The slope gradient is extremely important and the more gradual the slope, the less erosion will occur, and the better the grass will seed. We know nothing grows in the shade, and very little survives on a cliff face, so aim for a 30° slope but a 25° slope is even better. It's extremely important to ensure your landscape plans have berms drawn to scale. At the outset, you'll know the actual height you can achieve with the correct slope in your available space. A good rule of thumb: You need a width of 6 to 7m to achieve a height of 1.5m with a 30° slope and a good plateau to plant trees and shrubs on.
- **Soil:** The soil is like a starving child, and we must feed it. Most berms comprise subsoil where we've terraced into the land for the house. It's nutrient poor. If you're unable to spread 10cm of compost on the area being rehabilitated, enrich the soil going forward with fertiliser, leaves, and short veld grass cuttings.
- **Seeding:** Finally, when berms are beautifully/correctly shaped and fertilised, and approved, you can now seed. This seeding process applies to all disturbed areas where grassland has to be re-established



Figure 7: Berms

Timing and effective preparation are key:

- **Timing:** There must be enough time for the seed to germinate and the seedlings to establish themselves before the next dry season. What does this mean? Don't seed in April and expect the seeds to germinate and grow well in autumn and winter and then thrive the next summer season. Ideally seeding should take place when the rains come—which now seems to be in October, with the latest ideal time early January. However, if you're building, seeding according to the rainy season might not work, so you'll have to step in for nature and water. Even though it's an indigenous veld, it still needs water to germinate and grow!
- **Preparation:** Loosen the soil to allow water penetration and aeration. Before seeding, water the ground well to provide a moist seedbed.
- **Seeding:** With the surface now rough and moist, you can sow your seeds. The seed doesn't need to be buried. For all types of seeds, the seed's size is the depth it requires for planting. Seed should be applied superficially and evenly over the entire prepared area and immediately rolled with a lawn roller or sprinkled with water. This presses the seed down and prevents it blowing away. According to Mayford, the seed suppliers, "The soil must be cultivated to achieve an as favourable as possible seedbed. On heavy compacted soil, ripping and discing may have to precede surface cultivation. Seeding must be superficial as seed of most of the species require light to germinate. The seed should lie in the top 20mm of soil and then be immediately rolled in."
- **Watering:** Follow-up rain/watering is very important, as even if it's very hot during the day and the soil around the seed dries, as long as the seed is moist once every 24 hours, the germination process will continue. This is where you step in on behalf of nature. If you're seeding in warm but dry periods, water every 24 hours—a short watering period that will moisten the seeds. Once the seeds have germinated and grown to a height of approximately 3cm—unless it's very hot and dry—you can reduce the watering to every second day, and when they reach 5cm, reduce to weekly. As they grow and strengthen, you can cut back to every second week. Once they're healthy clumps, they should be happy with seasonal rain.



Caring for your berm and grassland

This applies to all areas being rehabilitated and reseeded.

Always look to nature—we have to emulate nature when caring for the grassland. Nature acts as the “gardener”, as through rainfall, fire, and animals, the landscape is maintained. Where nature cannot do its job because man has interfered, it’s our responsibility to step in and do it.

So how do we do act like nature when caring for our berms?

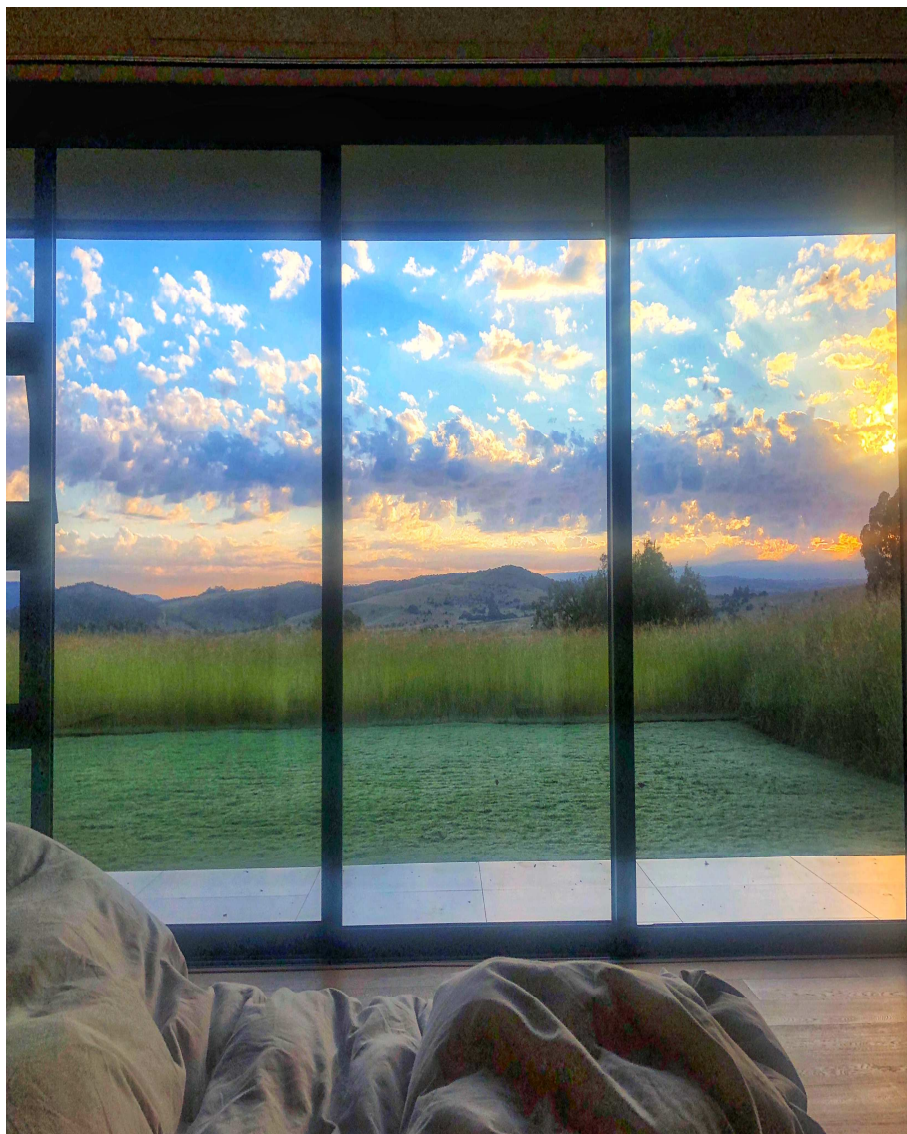
The seed you’re using is the Monaghan mix, **Biomosome®Reclamation grassland veld seed**. It consists of pioneer grasses or annual grasses that prepare the area for perennial grasses. If we don’t care for the newly seeded grassland correctly, the natural process of the pioneer grasses being eliminated and the endemic grasses taking over, will not happen. This change usually occurs over three seasons. The progress from pioneer to climax grasses, in nature, is largely influenced by grazing, rain, and fire, but in our case, it’s cutting height and frequency as well as watering and thatch removal that influence progression. You can assist this change by additional seeding with the **Biomosome® Wildlife mixture** in the second season.

Remember: Don’t be a goat, be a buck! Just like overgrazing destroys grasslands, excessive cutting stops progress and destroys them too.

Firstly, if you continually cut the grasses short, the grass composition remains the same with the pioneer grasses dominating and the beautiful climax veld grasses prevented from taking over. Secondly, your grassland will eventually die out, as there’s no natural reseeding occurring.

To put it in perspective, this is like planting a garden of just annuals and not allowing them to go to seed. It looks great the first season, not so great the next, and by the time you get to the third season, there’s no garden, just bare earth!

Don’t cut your grass until the end of winter or in the first year from seeding. This allows a seed bank to begin as well as ensures you don’t accidentally cut your grass before it goes to seed. You can lend a helping hand by seeding with the **Grassveld Wildlife mixture** at the start of the second season. This mix has a larger component of sub-climax and climax grasses.



After your first season:

The ideal scenario would be to cut approximately 10cm off at a time, twice a year, **only after** the seeds have formed and fallen.

The grass cycle is approximately three months. So, if you seed in October or it rains and new seeds germinate or old grasses sprout and grow, you can trim off 10cm in February. Leave these short cuttings on the ground to enrich the soil. It also ensures that any seeds that have not yet fallen, go to ground.

The final cut of the season should **only** be at the end of autumn. This allows time for the nutrients to be transported from the grass leaves to the crowns and/or root systems of the perennial or climax grasses. It's a bit like a bear storing fat to get through winter hibernation. The nutrients are stored in the crown of the grass during winter dormancy. In this final cut, leave the grass at least 15 to 20cm high.

If you cut the grass too short, the crowns will burn, and the grass will struggle to come back in the next season. Conversely, sunlight at ground level is also necessary for tufted perennial grasses' development and/or for new seed germination.

Therefore, not only the cutting technique, but also the amount or type of material left on the ground should be monitored. Accumulation of too much bulky old plant material (moribund) also harms the grassland. There's a fine balance. Cutting once a season and leaving large clumps of dead grass or not cutting at all and allowing a thatch to build up over years are both problems as this blocks out sunlight, which inhibits seed germination or crown regrowth. This moribund is removed in nature by fire, but we need to prevent it by raking and removal. By following this cutting regime, it allows seed to be shed for build-up of the seed bank in the soil, guaranteeing seeds available to germinate when the next rains come.

It will take three seasons, if you follow these practices, and you will have beautiful grasslands consisting of endemic Highveld grasses suited to your patch in Monaghan.

Mayford, 2020, *Improve veld with Biomosome TM seed mixtures Parts 1, 2, and 3*

Irrigation principles

We are in a water scarce country and the correct irrigation principles are most important.

Automated irrigation

Many people see automatic irrigation as wasteful, however the correct planning of hydro-zones, setting up of your system, and watering regime will save water rather than waste it.

Irrigation stations should be area or hydra-zone specific:

- Lawns
- Garden beds based on sun versus shade, for example, north facing beds will be on a separate zone from south facing beds
- Entrances
- Vegetable gardens

This will allow you to water each area appropriately.

How much and how often you should water

It's more effective to water established plants deeply as needed, rather than for short periods every day.

Plants absorb water through the roots and for water-wise gardening, the aim is to encourage the plant roots to penetrate as deeply into the soil as possible. This will help them to avoid drying out during the drying cycles of the upper soil layers.

Just as branches twist and turn to get to more light in forests, roots grow after a water supply. If the area is constantly watered lightly, the moisture will be just below the surface which will encourage the plant roots to remain shallow. The problem is in hot dry spells, the moisture will evaporate quickly and leave plants distressed.

Your aim should be to water deeply so that two or three days after watering, the moisture can still be found to about 10cm below the soil surface. You can check the soil moisture depth using a wooden dowel—like a toothpick to check if a cake has fully baked—or dig a small hole to see how far the water has penetrated

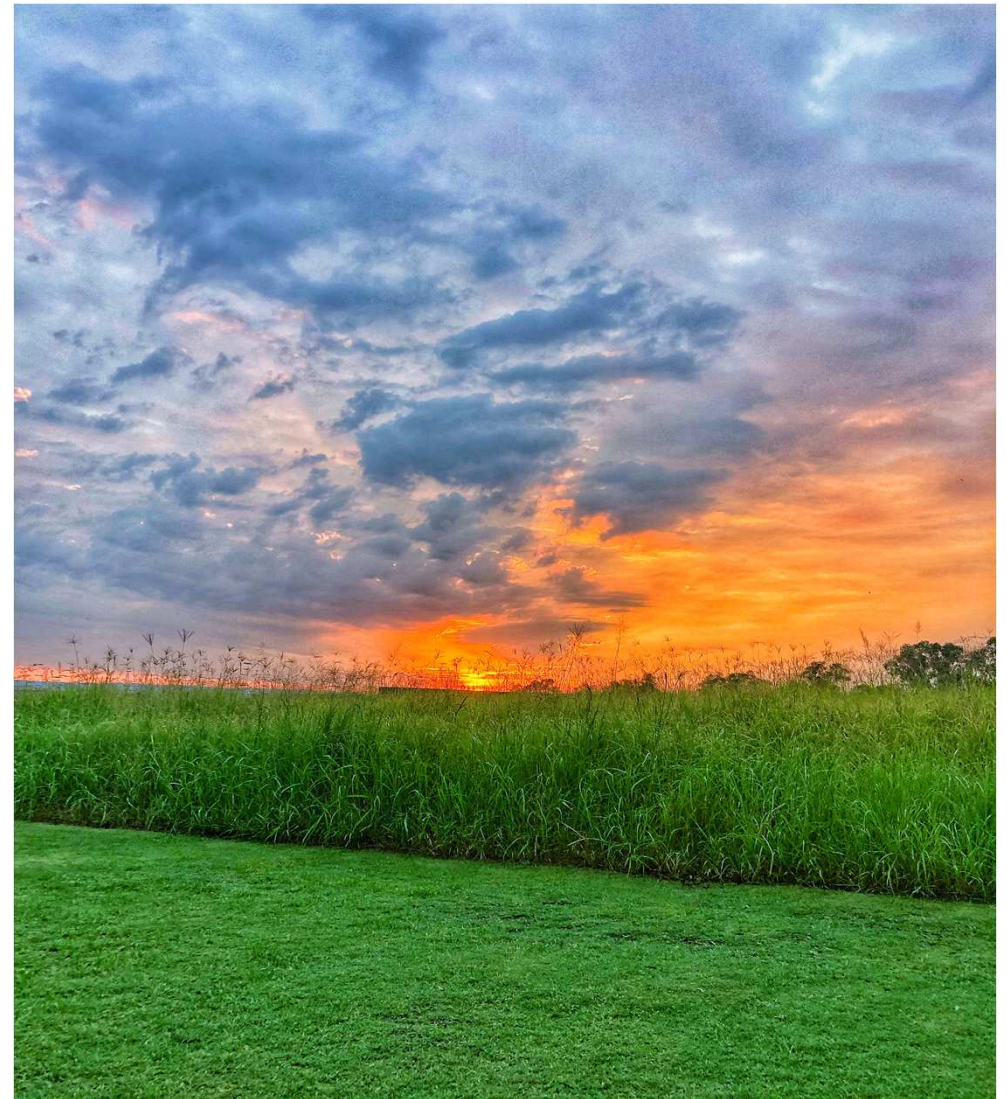
The time you water is very important. Water after 1:00am in the morning. This allows water to soak in before sunrise and reduces evaporation.

Do not water between 5:00pm and 12:00pm **in the evening**. You are creating the ideal environment for pests and diseases. Mole crickets thrive in lawns that are watered early evening.

Water also plays a major part in supporting and spreading plant diseases. Fungi or bacteria that cause plant diseases are called pathogens and are spread by spores or cells. These spores and cells, like plant seeds, require moisture to begin germination, and once they germinate, if they dry out they die. These pathogens also require a moisture film for at least nine hours to penetrate the plant leaf. In addition to germination, they also require water to spread and infect other plants. Hence moisture is the critical factor determining active disease and pests versus little to no disease or pests in your garden. You can control many plant diseases by merely controlling your watering length and time. This is another important reason to water deeply and less often. Remember dew is water too, so your watering schedule has to account for it. As dew is usually present from about midnight to 8:00am your watering cycle should be between 1:00 and 7:00am to avoid extending the period that the leaves remain moist.

If watering by hand during the day, wait until the dew has dried off. Try to water at the plants' base. Complete your watering so that plants dry off before evening.

By understanding the association of moisture to disease development and by changing your watering practice to cut the duration of leaf wetness and number of irrigations, you can lessen disease in your landscape as well as grow stronger more drought hardy plants. In addition, you'll also use less water (seven days, 10 minutes a day, versus 35 minutes, once a week)



Deciding on the watering regime for an established garden

Cynodon lawns have shallow roots and are drought tolerant. Watering need not be deep. But it also means that water evaporation will be quicker. An established lawn needs watering for about 10 minutes every second or third day. With correct soil preparation, this can be extended to weekly. But before you set your timer, first check how your system wets the lawn. You might have a rotor sprayer that only passes over the area four times in 10 minutes— it might not be enough. It's best to let it run for 10 minutes, wait for 10 minutes, and after the watering cycle is complete, test the moisture depth in the soil. If it's wet 5cm deep, that's enough water, and 10 minutes is long enough. If it's less, extend the watering time by a few minutes until you achieve a 5cm depth.

Group your plants together correctly and plant them in positions suited to their needs with each group having the same water requirements (hydra-zoning). Each garden section can then be watered to suit their specific needs. Ideally you shouldn't water more than once a week, 30 minutes per area – excluding lawns (this also excludes seedlings and newly planted gardens). With indigenous and environmentally appropriate plants, this can be extended to 35 minutes every 8 to 10 days.

If you follow the principles of xeriscaping (and used the provided plant lists), you'll have planted with Highveld plants. As a result, you'll not require much additional watering during the rainy season. In summer or spring, they might need a boost or help through an extremely hot period, otherwise the summer rainfall should suffice. In winter, they shouldn't require watering and irrigation can be turned off.

Lastly, know your plants' watering requirements and **any change in watering regime should be gradual:**

- Established trees and shrubs (five years or older) don't generally need watering, as they have such wide-ranging roots that they're drought-proof. But their growth may be improved by watering when they're under drought-stress.
- Trees and shrubs planted less than five years ago have increased water requirements and may suffer drought-stress without watering, so regular deep watering is advisable, every 7 to 12 days.
- Newly sown or newly planted areas are very vulnerable to water-stress, and watering these should be high priority. These can have short often irrigation periods until they're established. Once established, reduce watering frequency and conversely, increase watering amount gradually.
- If you're watering every second day for 10 minutes, go to every third day for 12 minutes, then every fourth for 15 minutes, every fifth day for 20, and finally, weekly for 30 minutes.
- Herbaceous perennials often need watering to boost their performance in hot, dry spells. Plant choice is crucial if you want to achieve a drought-proof border.
- Lawns require great water quantities for thorough irrigation. Instead of watering in dry periods, mow less closely and less frequently. Brown patches usually recover when the rains return.
- Planting new plants between spring and mid-summer gives them the best chance of growing strong roots before dry weather begins.

Remember, you all have new gardens and your trees and shrubs have come from a nursery where they've received daily watering and shelter. You cannot plant them out and expect them to survive with little to no water. You must continue to water them properly for the first year, even throughout winter, and then gradually reduce as they become established.

When watering new trees and shrubs, watering by bucket is best as it's measurable:

- A half bucket of water for each 50l plant bag
 - One bucket for 100l tree
 - Two or three buckets for large transplanted trees
1. Start off watering by bucket, watering three times a week
 2. Reduce to watering twice a week after six weeks
 3. After three months, water once a week
 4. Water weekly throughout winter, early in the day

Once the plants seem established (a minimum of a year after planting), seasonal rainfall and/or deep irrigation using your automated system should suffice

Note: For open-ground transplanted trees, this does not apply. Regular watering must continue for at least three years until they have re-established a root system large enough to support their crown

Victoria State Government, 2020, *Irrigation*, at <http://agriculture.vic.gov.au/agriculture/farm-management/soil-and-water/irrigation>

Vinpro, 2016, 3 May, *Irrigation technology cuts water usage*, at <http://vinpro.co.za/irrigation-technology-cuts-water-usage-2/>

Reinders, FB, 2011, January, *Irrigation methods for efficient water application: 40 years of South African research excellence*, SciELO South Africa, at http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S1816-79502011000500017

Water use it wisely, 2020, *Efficient Irrigation*, at <https://wateruseitwisely.com/100-ways-to-serve/landscape-care/principles-of-xeriscape-design/efficient-irrigation/>

RHS, 2020, *Watering*, at <https://www.rhs.org.uk/advice/profile?PID=312>

SFGate, 2018, December 17, *Why should plants not be watered at night?*, at <https://homeguides.sfgate.com/should-plants-not-watered-night-66422.html>

Henn, A, 2016, *The Plant Doctor: Watering and plant disease*, Mississippi State University, at https://extension.msstate.edu/sites/default/files/publications/information-sheets/is1670_0.pdf

PART 3: SUBMISSIONS TO MONAGHAN AESTHETICS COMMITTEE (MAC)

The Monaghan Aesthetics Committee (MAC) meets weekly for adjudication. Bookings close at 12pm on the preceding Thursday. All plans are to be supplied in paper form. We do not print drawings. To book a half hour slot please call 087 260 4000 and ask for MAC or email mac@monaghanfarm.co.za

Only SACAP registered professionals may submit architectural plans. Email submissions will not be considered. Published rules, regulations, and schedule of fees for Monaghan Farm NPC are available for download from the company's website.

Please note that the entire MAC procedure is a subjective one.

Before an appointment is confirmed, submit the following:

1. Appointed professional SACAP registration certificate.
2. Completed indemnity form (see Annexure D : Indemnity form)
3. Letter from SACAP registered professional confirming:
 - a. Plans comply with latest published Monaghan Farm regulations
 - b. Agreeing to and guaranteeing a minimum of one site visit per month by the SACAP registered professional during the construction phase
4. Proof of payment, scrutiny fee (invoices shall be issued on receipt of payment only)



SCRUTINY FEE (explained)

The scrutiny fee accommodates a prescribed set of meetings with MAC, with each meeting no more than 30 minutes.

Where additional meetings beyond the “prescribed set of meetings” are requested, additional submission fees apply.

NB: Failure to attend a scheduled meeting will count toward one of the prescribed meetings covered by the scrutiny fee

(please refer to the published schedule of fees available for download from the company’s website).

SUBMISSION 1: CONCEPTUAL DESIGN

The proposed design concept’s site analyses and/or sketches shall be submitted to MAC for the conceptual design principles’ assessment.

Requirements: Two copies: Conceptual sketches, plans, and 3Ds in A3 or A1 format, one set to be kept by MAC.



SUBMISSION 2: DESIGN DRAWINGS

Detailed design drawings shall be prepared, which comply with MAC's conditions of approval issued in respect of Submission 1.

Detailed drawings must:

- Indicate external materials i.e. wall finishes, wood finishes, stonework, etc.
- Show site contours and dimensions.
- Demarcate the proposed development pocket on the erf, including size and percentage in relation to erf size.
- Include water storage and reticulation details.
- Include positions of berms, if relevant, and reflect stormwater run-off.
- Ensure a 5.5m dotted line is shown above the natural ground level (NGL) on sections. i.e. the natural ground level on the erf before any construction/earthworks take place.
- Ensure that any power-saving methods and technology are incorporated into the design at this stage – these must not be an afterthought.

Requirements:

1. Two sets of A1 detailed design development drawings, a site plan at 1:500 showing the development pocket, fencing, stormwater reticulation, berm positioning, driveway and swale crossing design, a ground floor plan at 1:100, a minimum of two sections and all elevations at 1:100 (showing 5.5m height restriction) and at least four 3Ds. One set to be kept by MAC.
2. Completed MAC Design Checklist (see Annexure E: Design checklist)

SUBMISSION 3: COUNCIL SUBMISSION DRAWINGS

Submission 3 must include any changes requested at Submission 2 and must be submitted to MAC for final approval and stamping prior to submission to Council. Council approval will not be granted without a MAC stamp of approval.

NB: MAC submissions process 1-3 to be concluded, signed off by MAC, within six months of the first submission, failing which a new submission fee is applicable.

Requirements:

1. Three full sets of Council submission drawings for stamping by MAC (one full set to be retained by MAC.)

Completed MAC Design Checklist.

- 2, A set of Council approved plans must be given to MAC.

SUBMISSION 4: LANDSCAPE PLAN

A landscape plan must be submitted to MAC for approval during the time in which the architectural plans have been submitted to Council and are waiting for approval.

Requirements:

1. Two landscape drawings in A1 format. One set to be kept by MAC (see Annexure G: Landscape plan requirements

BUILDING PROCESS

Once Council approved plans and MAC approved landscape plans are provided to MAC, the building process may commence subject to a builder's induction being completed with representatives appointed by the Association.

A SACAP registered professional must be appointed (SACAP Stage 5 & 6) throughout the building process. Where such services have been cancelled, the owner must notify MAC immediately, and appoint a new SACAP registered professional.

A full set of Council approved, and MAC approved landscape plans must always be kept on site and available during construction.

VARIATION ORDERS (VOs)

Any deviations from MAC approved drawings are to be submitted to MAC before any changes are implemented on site.

VOs should be clouded with the change list recorded on plans. This applies to **external** structural and aesthetic changes only, for example: height increases, window/s addition or omission, changes to external paint colours or finishes, any increase of the development pocket, etc. Only once these have been MAC approved, will such deviation be allowed to proceed on site.



FINAL HOUSE SIGN OFF

Final inspection and sign off by MAC, must be completed within the allotted build period of 15 (fifteen) months.

Once the property is capable of sign off, the professional must request/book a sign off inspection with MAC.

Requirements for MAC sign off inspection:

- SACAP registered professional to be present
- One full set of AS built drawings incorporating all VOs
- MAC approved landscape plan
- Occupation certificate issued by the Council
- MAC sign off check sheet to be completed by SACAP registered professional (see Annexure F: Sign off check sheet)

PRESCRIBED MAC MEETING STRUCTURE

NEW BUILDING PROJECTS / ADDITIONS AND ALTERATIONS EXCEEDING 150m²

Prescribed meeting structure allows for five (5) architectural and two (2) landscape orientated meetings during the design and construction process and one (1) meeting for final inspection.

In person attendance is required, no email submissions will be considered. Each meeting is a maximum of 30 minutes.

Where additional meetings are requested, additional fees shall apply.

Meeting 1	Submission 1	Concept design
Meeting 2	Submission 2	Design drawings
Meeting 3	Submission 3	Council submission drawings
Meeting 4 & 5	Submission 4	Landscape submission
Meeting 6		Variation orders
Meeting 7		Approval of samples
Meeting 8	Sign off	Final sign off inspection

PRESCRIBED MAC MEETING STRUCTURE

Non-Council submissions

(e.g. braai area, driveway, PV panels, solar heating, solar receptors, evaporative cooling, artwork, CCTV, external lighting, and other external elements not shown on MAC approved record drawings)

Prescribed meeting structure allows for a maximum of two (2) architectural orientated meetings during the design and construction process and one (1) meeting for final inspection. Where additional meetings are requested, additional fees shall apply.

Meeting 1		Design drawings
Meeting 2	Submission 2	Design drawings/ Approval
Meeting 3	Sign off	Final sign off inspection

Council submissions

(e.g. pools, carports, additions, and alterations, enclosing of patios etc.)

Prescribed meeting structure allows for a maximum of three (3) architectural orientated meetings during the design and construction process and one (1) meeting for final inspection. Where additional meetings are requested, additional fees shall apply.

Meeting 1	Submission 1	Concept design / Design drawings
Meeting 2	Submission 2	Design drawings
Meeting 3	Submission 3	Council submission drawings
Meeting 4	Sign off	Final sign off inspection

LANDSCAPE PLANS

(e.g. deviations to approved landscape plan on record, new tree positioning, additional planting, fences, walkways, play equipment etc.). Prescribed meeting structure allows for a maximum of two (2) landscape orientated meetings during the design process.

Where additional meetings are requested, additional fees shall apply.

Meeting 1 & 2	Submission 4	Landscape submission
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PART 4: ANNEXURES TO THE ARCHITECTURAL AND LANDSCAPE REGULATIONS

ANNEXURE A: TSHWANE MUNICIPALITY CONDITIONS OF TITLE

(A) ALL ERVEN

The erf is subject to a servitude, three metres wide, in favour of Monaghan Farm and the Municipality, for sewerage and other engineering services, along any two boundaries other than a street boundary. In the case of a panhandle erf, an additional servitude for services, one metre wide across the erf's access portion, if and when required by Monaghan Farm and the Municipality: provided that Monaghan Farm and the Municipality may dispense with any such servitude.

No building or other structure shall be erected within this servitude area and no large, rooted trees shall be planted within this servitude or within two metres thereof.

Monaghan Farm and the Municipality are entitled to deposit temporarily on the land adjoining this servitude area any material excavated by them during the course of the construction, and/or maintenance or removal of such works and are entitled to reasonable access to this land for these purposes subject to any damage done during the construction process, maintenance or removal of such works being made good by Monaghan Farm and the Municipality.

The owner acknowledges that the property is near Lanseria airport and existing and operational farms in the vicinity, in particular the Early Bird Chicken Farm. The owner further acknowledges that these facilities and their activities, as well as the farming activities on Monaghan Farm by the Home Owners Association (HOA) may result in some nuisance, discomfort, or inconvenience with regard to noise and smells experienced by residents and their guests, and will have no claim against the seller, the HOA, the local authority, or any authority having approved the development as a result thereof.

As this property is adjacent to an airport, with the subsequent aircraft and aviation activities, the property is subject to noise and disturbance from aircraft, and the owner accepts the nuisance and inconvenience, which may result from such noise and disturbance. The owner indemnifies the airport's operator against any liability or claims, which may arise from such noise and disturbance due to aviation operations

(A) ERVEN WITHIN TEMPEST, SPRING AND DRUM VILLAGE

The erven's owner shall become and shall remain a member of Monaghan Farm HOA and shall be subject to its memorandum of articles of association until they cease to be an owner. Their property shall not be transferred to any person who has not become an HOA member.

To enable the HOA to maintain their services, a trust fund has been created, and a fixed amount is deposited by every owner into the fund every month. This amount is determined during a general meeting of all the owners and should be escalated every year.

Any portion cannot be transferred to a new owner without an HOA clearance certificate that all amounts owed by the owner to the Association have been paid and that the owner has generally complied with the Association's memorandum and articles of association. Monaghan is subject to the *Peri Urban Town Planning Scheme, 1979*, which has been amended and altered in the following manner:

ERVEN USE ZONE I: RESIDENTIAL NO 1

1	USE ZONE	I: RESIDENTIAL NO 1
2	USES PERMITTED	Table D, column 3
3	USES WITH CONSENT	Table D, column 4, home undertakings, Clause 7 included
4	USES NOT PERMITTED	Table D, column 5
5	DEFINITIONS	Clause 1: For the purpose of this scheme, a "home undertaking" means that a person may practice an occupation from home; provided that the conditions as stipulated under point 20.4 are met. For the purposes of this scheme, a "loft" means a mezzanine storey of which the floor area does not exceed 25% of the floor beneath its area. For the purposes of this scheme, "development pocket" means land used for the development. For the purpose of this scheme, a "development footprint" means an area on which buildings may be developed.
6	DENSITY	One dwelling per erf: No additional dwelling house is permitted except for domestic worker's quarters.
7	COVERAGE	The development footprint shall not exceed 1,000m ² The development pocket shall not exceed 50% of the erf. The land development pocket may be increased to the HOA's satisfaction.
8	HEIGHT	5.5m (one storey, including loft)

ERVEN USE ZONE I: RESIDENTIAL NO 1

9	FLOOR SPACE RATIO	Not applicable
10	SITE DEVELOPMENT PLAN & LANDSCAPE DEVELOPMENT PLAN	Not applicable
11	BUILDING LINES	As per approved building plans
12	PARKING REQUIREMENTS	As per approved building plans
13	PAVING OF TRAFFIC AREAS	Not applicable
14	ACCESS TO THE ERF	Not applicable
15	LOADING AND OFF-LOADING FACILITIES	Not applicable
16	TURNING FACILITIES	Not applicable
17	PHYSICAL BARRIERS	No physical barriers may be erected on the erf boundaries except for around the development pocket to the HOA's satisfaction.
18	HEALTH MEASURES	Any requirements for air pollution, noise abatement or health measures set by the City of Tshwane Metropolitan Municipality shall be complied with to the Municipality's satisfaction without costs to the Municipality.

ERVEN USE ZONE I: RESIDENTIAL NO 1

19	OUTDOOR ADVERTISING	Not applicable
20	GENERAL	1) A certificate signed by an engineer stating that they have studied the relevant geological report and have prescribed the necessary safety measures according to the geological conditions of the buildings and the site as well as installation of the wet services. This certificate is to be submitted together with the building plans. On the building's completion, the engineer must certify that all their specifications have been met. 2) All building and structures to be erected are subject to the Monaghan Architectural Regulations' provision and all amendments to these guidelines as may be affected and approved by the HOA. Building plans shall only be submitted to the Municipality for final approval once the Monaghan Aesthetics Committee (MAC) have evaluated and approved these plans. 3) The recommendations and guidelines as set out in the approved Environmental Management Plan shall be reflected in the building and landscape plans. 4) Should the owner obtain consent for a home undertaking, the following conditions shall form part of the consent: 4.1 Any person practising an occupation must occupy the dwelling house. 4.2 The practice of such occupation may not, to the Municipality's sole discretion, cause any nuisance of any nature whatsoever nor disturb the surroundings. 4.3 No goods may be exhibited, displayed, or stored without the Municipality's written permission. 4.4 Only 25% of the floor area of the dwelling is permitted be used for the practice of such occupation 4.5 No more than two employees in maintenance or support roles or two agents may be employed unless the Municipality has given prior written consent. The conditions of Clause 7 are applicable to such application. 4.6 No occupation may be practised from an outbuilding unless the Municipality has given prior written consent. The conditions of Clause 7 are applicable to such application. 4.7 No shops may be practised from outbuildings or dwelling houses. 5) No residential development will take place within an area with a decibel count more than the norm, with reference to Lanseria aerodrome's noise contour. 6) In addition to the above conditions, the erf and buildings thereon are further subject to the general provisions of the Peri-Urban Areas Town Planning Scheme, 1974.

ANNEXURE B: Monaghan Farm Colour Palette

MONAGHAN FARM COLOUR PALETTE

Touchstone Y2-E1-4	Misty Valley 9B0	Daphne's Dream Y1-E2-3	River Clay NEU10
Statued NEU12	Shanghai Sky GR-R04	French Chartreuse Y5-D2-3	Paradise Hill Y4-D1-2
Madonna City Y1-E1-3	Baby Elephant Y1-E1-4	Stone Wash Y2-D2-2	Cream of Wheat 07-E2-1
Cement Wash Y1-E2-2	Peris Paving GR-Y09	Kweicin E19-5	Gold Olive Y3-D1-1
Dung Beetle Y1-E1-3	Dirty Khaki Y3-E1-3	Stone Whale 04-E1-3	Maison Blanche Y1-E2-1
Stone Statue 07-E1-4	Ibiza Bay GR-Y14	Corinthian Pillar Y3-E1-4	Mud Bath Y2-E1-1
Jungle Pride Y3-E1-1	Hideout Y4-E1-2	Maple Bark E-9-7	Moss Gold Y2-E1-3
Tibetan Cloak GR-R03	Auberge E8-7	Starlight Express Y5-E1-3	Mother Earth Y1-E1-1
		Sea Weed Wrap Y5-E1-1	

ROOF COLOUR PALETTE

Dark Dolphin	N 13030	Charcoal Grey	N 13012
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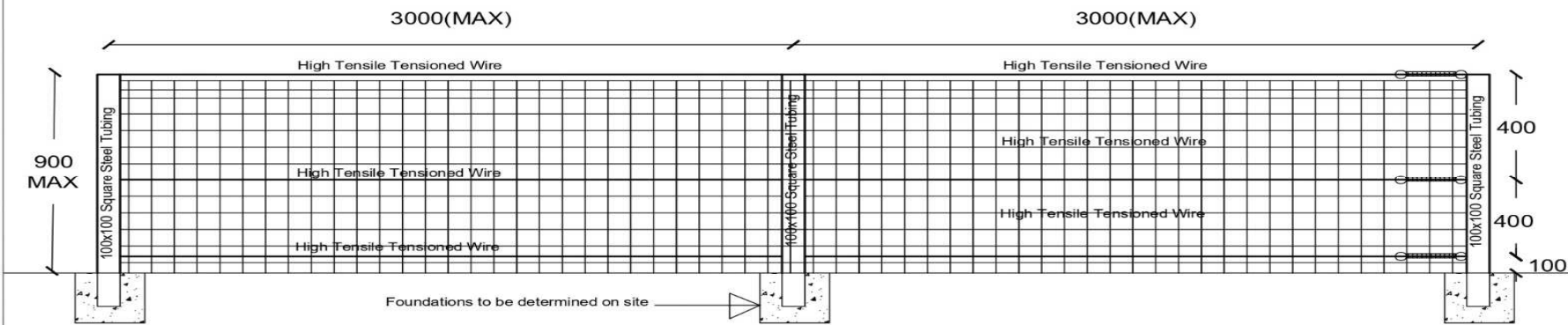
FRONT DOOR COLOUR PALETTE

R2-B1-1	P5-C1-1	G-25	B4-B1-1	G4-D1-1	05-A1-1	Y5-A1-1
King's Cloak	Victorian Lace	Deep Blue	North Beach	Vineyard Green	Wake up Orange	Lavish Lemon

ANNEXURE C: Types of fencing 900mm maximum in height

Note

- The approved height of fence is 900mm.
- Only applicable for small dog breed.
- Post to be painted same colour as steel and/or aluminium at the house.



Tensioned Wire Mesh Fence Detail

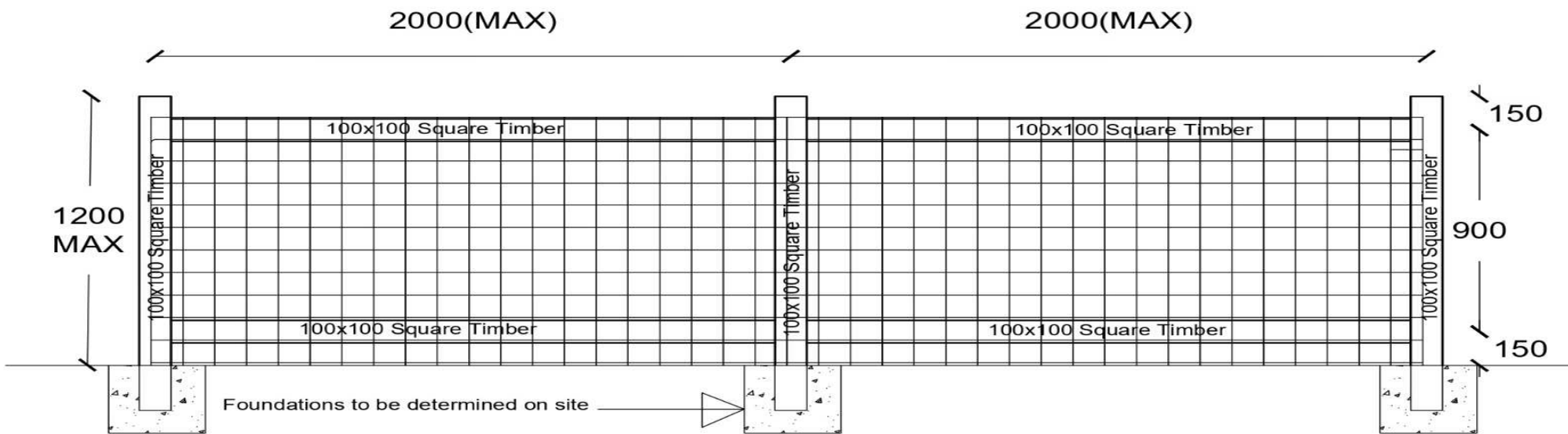
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NO	BY	DATE	DESCRIPTION
2	RH	23/3/20	
1	RH	21/2/20	
DETAILING			
Rhett Harrison Civil & Structural Engineering Email: rhett.harrison@rhett.co.za Phone: 083 709 6179			
CLIENT			
Monaghan Farm			
PROJECT			
Architectural Fence Guideline Drawings			
TITLE:			
Tensioned Wire Mesh Fence Layout			
DESIGNED	RH	CHECKED	HS
DRAWN	RH	07-08-20	APPROVED M.F.H.O.A
SCALE	N/A	PROJ No.	RH2020-02
		DRWG No.	03
		REV.	2
		SCALED ON	A3

ANNEXURE C: Types of fencing 1,200mm maximum in height



Note

- The approved height of fence is 1.2m.
- We encourage the use of FSC-accredited, locally-sourced timber such as Saligna from managed forests. Hardwoods from Tropical rainforests, such as Balau are not appropriate, as they are not sustainable.
- Beam to be inline with posts (not side mounted)



Timber and Mesh Fence Detail

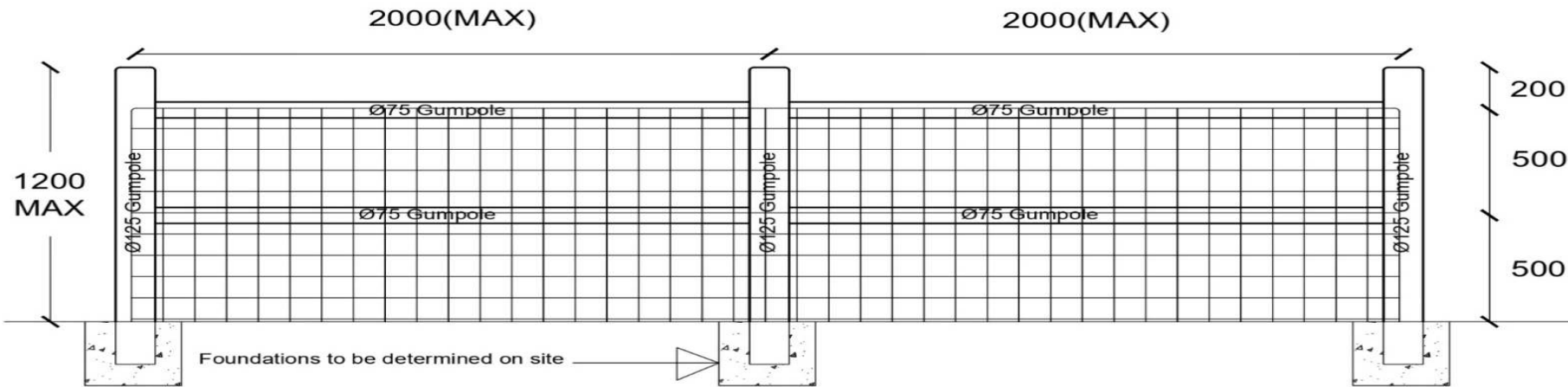
			NOTES ADDED/CHANGED		
2	RH	23/02/20	FOR CONSTRUCTION		
1	RH	21/02/20			
NO	BY	DATE	DESCRIPTION		
					
Rhett Harrison Civil & Structural Engineering Email: rhett.harrison@rhgroup.com.au Phone: 08 705 6170					
CLIENT		Monaghan Farm			
PROJECT		Architectural Fence Guideline Drawings			
TITLE		Timber and Mesh Fence Layout			
DESIGNED	RH	CHECKED	HS	SCALE	A3
DRAWN	RH	07-08-20	APPROVED	M.F.H.O.A	REV. 2
SCALE	N/A	PROJ No.	RH0020-02	DRWG No.	02

ANNEXURE C: Types of fencing 1,200mm maximum in height



Note

- The approved height of fence is 1.2m.
- We encourage the use of FSC-accredited, locally-sourced timber such as Saligna from managed forests. Hardwoods from Tropical rainforests, such as Balau are not appropriate, as they are not sustainable.
- Beams to be inline with post (not side mounted)



Gumpole and Mesh Fence Detail

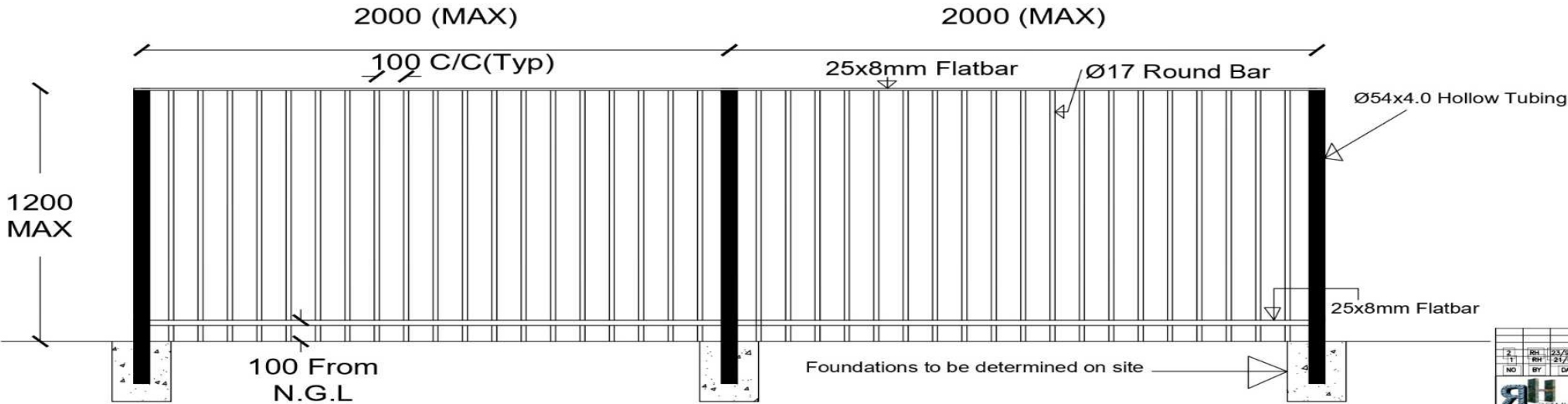
NOTES: ADDED/CHANGED			
NO	BY	DATE	DESCRIPTION
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2	RH	21/9/20	
Client: Monaghan Farm Project: Architectural Fence Guideline Drawings Title: Gumpole and Mesh Fence Layout Designed: RH Drawn: RH Scale: N/A Checked: HS Approved: M.F.H.Q.A. Proj No.: RH000-02 Rev: 2 Drwg No.: 01			

ANNEXURE C: Types of fencing 1,200 maximum in height



Note

- The approved height of fence is 1.2m.
- Steel to be painted the same colour as steel and/or aluminium at the house.



Steel Fence Detail

NOTES ADDED/CHANGED			
NO	BY	DATE	DESCRIPTION
1	RH	23/9/20	FOR CONSTRUCTION
2	RH	21/9/20	
DETAILING			
Robert Harrison Chief Architectural Draftsman Email: r.harrison@rhdrafting.com Phone: 083 705 6170			
CLIENT: Monaghan Farm			
PROJECT: Architectural Fence Guideline Drawings			
TITLE: Steel Fence Layout			
DESIGNED	RH	CHECKED	HS
DRAWN	RH	APPROVED	M.J.H.O.A.
SCALE	N/A	PROJ No.	RH2020-04
		DWG No.	04
		REV.	2
		SOLED ON	A3



MONAGHAN FARM HOME OWNERS ASSOCIATION
t: +27 (0)87 260 4000.
e: hoa@monaghanfarm.co.za i: www.monaghanfarm.co.za
PO Box500, Monaghan Farm, Lanseria 1748

INDEMNITY

[INSERT NAME(S) OF HOMEOWNER]
("the homeowner")

[INSERT ADDRESS / ERF NUMBER]

The homeowner – in submitting any and all designs, plans, sketches and/or drawings ("the plans") for, *inter alia*, consideration, input and/or approval by the Homeowners Association and/or Monaghan Aesthetics Committee ("MAC") – herewith and hereby irrevocably and unconditionally fully indemnifies, and holds completely harmless, the Homeowners Association and MAC, its directors, its members, its employees, agents and representatives (as the case may be) and all other homeowners and residents against any and all claims, liability, damages, actions, proceedings, loss, expenses and costs (including legal costs as between attorney and client) of whatsoever nature and howsoever arising out of the homeowner's appointment and/or use of any architect(s) and/or the plans (and as may be amended from time to time) by the homeowner and/or such architect(s).

SIGNED at _____ on this _____ day of _____ 20__

[THE HOMEOWNER]

(The signatory warrants, to the extent necessary, that the signatory is duly authorized.)

ANNEXURE E: ASTHETICS COMMITTEE DESIGN CHECKLIST

ANNEXURE E

MONAGHAN FARM



ASTHETICS COMMITTEE DESIGN CHECKLIST

UNIT NUMBER

SUBMISSION NUMBER

SACAP PROFESSIONAL

DATE

ENERGY EFFICIENCY				COMMENTS : SACAP PROFESSIONAL	COMMENTS : MAC
Insulation	YES	NO			
Shading/overhangs	YES	NO			
Thermal massing	YES	NO			
Cross Ventilation	YES	NO			
Orientation	YES	NO			
ALTERNATIVE RENEWABLE SOURCES				COMMENTS : SACAP PROFESSIONAL	COMMENTS : MAC
Heat pumps/solar/PV Panels	YES	NO			
Gas	YES	NO			
Aircon/Exhaustive Coolers	YES	NO			
SINGLE STOREY					
Height Restrictions met	YES	NO			
ROOFS				COMMENTS : SACAP PROFESSIONAL	COMMENTS : MAC
Shape/Angles	YES	NO			
Materials	YES	NO			
Chimneys	YES	NO			
EXTERNAL WALL MATERIALS				COMMENTS : SACAP PROFESSIONAL	COMMENTS : MAC
Stonework/Gabions	YES	NO			
Rammed earth	YES	NO			
Plaster & Paint Texture	YES	NO			
Cladding- Wood/Steel	YES	NO			
Shipping Container	YES	NO			
Tinder	YES	NO			
Windows & Doors	YES	NO			
WATER COLLECTION				COMMENTS : SACAP PROFESSIONAL	COMMENTS : MAC
Capacity vs Storage	YES	NO			
Stormwater Retention	YES	NO			
Underground/Submerged Reservoir	YES	NO			
Ponds or Pools (If yes, type?)	YES	NO			
STAFF ACCOMMODATION				COMMENTS : SACAP PROFESSIONAL	COMMENTS : MAC
Site	YES	NO			
Ventilation & Natural light	YES	NO			
Bathroom access	YES	NO			
GENERAL				COMMENTS : SACAP PROFESSIONAL	COMMENTS : MAC
Courtyards	YES	NO			
Development pocket	YES	NO			
Carport & Garage	YES	NO			
Building Materials	YES	NO			
Driveway & Swales	YES	NO			
EXTERNAL ELEMENTS				COMMENTS : SACAP PROFESSIONAL	COMMENTS : MAC
Fence	YES	NO			
Satellite Dish	YES	NO			
Alarm/CCTV	YES	NO			
Fiber to Home	YES	NO			
Playgrounds etc.	YES	NO			
Fire Pits	YES	NO			
House Numbers	YES	NO			
Artwork (External)	YES	NO			
SWIMMING POOL				COMMENTS : SACAP PROFESSIONAL	COMMENTS : MAC
Fence	YES	NO			
Filtertron / backwash	YES	NO			
EXTERNAL LIGHTING				COMMENTS : SACAP PROFESSIONAL	COMMENTS : MAC
Below 1.2M	YES	NO			

ANNEXURE F: ASTHETICS COMMITTEE SIGN-OFF CHECK SHEET

ANNEXURE F

ASTHETICS COMMITTEE SIGN OFF CHECK SHEET

UNIT NUMBER

SACAP PROFESSIONAL

DATE

MONAGHAN FARM



NB: The project should meet the requirements of the Architectural & Landscaping Regulations before scheduling a sign off inspection.

Record drawings to be made available for inspection

Architectural Set of AS-Built Drawings, incorporating all Vos

MAC Approved Landscape Plans

Municipal Council Occupation Certificate

SACAP professional present

MAC sign off check sheet completed by SACAP registered professional

	COMPLIANT		Comment:
	YES	NO	
Construction in accordance to MAC approved plans			
Water Collection Connected	YES	NO	Comment:
Heating, Cooling and PV Systems	YES	NO	Comment:
Building Materials	YES	NO	Comment:
External Elements	YES	NO	Comment:
Satellite Dish			
Playground Equipment etc			
Swimming Pools	YES	NO	Comment:
Back wash / overflow			
Lighting	YES	NO	Comment:
Landscaping:	Comment:		
Berns	YES	NO	
Shaped	YES	NO	
Seeded	YES	NO	
Covered for winter	YES	NO	
Complete	YES	NO	
Swales crossing	YES	NO	
Completed to Specs on Plan	YES	NO	
Lawn:	YES	NO	
Edged	YES	NO	
Garden Beds:	YES	NO	
Edged	YES	NO	
Fencing	YES	NO	
Completed to Specs on Plan	YES	NO	
Rehabilitation - all areas affected during construction	YES	NO	
Notes -			

PROJECT SIGNED OFF

YES

NO

MAC

SACAP Professional

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Proposed Plants

type	botanical name	common name	Qty
Aloe succulent	Aloe marlothii	Mountain Aloe	3
Aloe succulent	Aloe dyarrii	Dyers Aloe	6
grass	Marina nervigulmis	Bristle-leaved Red Top	27
grass	Aristida juncea	Ngongoni three-awn	14
Ground cover	Aristida arctoides	Bushbloom	9
Shrub large	Podocarpus viscosus (angustifolia)	Sand Olive	13
shrub large	Buddleia saligna	Sagehood	21
shrub small	Asparagus suaveolens	Wild asparagus	12
shrub small	Barleria obtusa	Bush Violet	3
Small shrub	Asparagus virgatus	Broom asparagus	12
Tree	Citrus limon	Lemon tree	3
tree medium	Olea europaea subsp. africana	African Olive, Wild Olive	6
Tree small	Buddleia saligna	False Olive	12
Tree small	Apodytes dimidiata	White Pear	4
Tree small	Mundulea sericea	Cork Bush	9

14 & 15. Legend includes:
 All plantings of trees, shrubs, grasses etc planted in:
 Undeveloped pocket
 Developed pocket
 Courtyards

Development pocket: 41.5%
Stand: 5740m²
Developed area: 2380m²

Stand Number:
Township / Village:
Extent (squares meters):
Property Owner details:
Landscape architect details:
Date of submission: (in bold)
Scale:

NOTE:
 SHARED BERM WITH WRITTEN
 CONSENT BY NEIGHBOUR SUPPLIED
 WITH PLAN.