Architectural Design Guidelines

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1. Design Guidelines

Moquini Bay is named after the African Oystercatcher, a charismatic water bird and inhabitant of the coast of southern Africa, named after the French professor of zoology Alfred Moquin-Tandon.

Moquini Bay is situated in-between the Agulhas National Park and the small seaside village of Suiderstrand. The area forms part of the Overberg District Municipality in the Western Cape province of South Africa. The Agulhas plains, also known as the Strandveld, can be described as lowland plains covered in a blanked of Fynbos with beautiful, secluded beaches and the Cape Mountain scape on its peripheries.

Moquini Bay is nestled into this awe-inspiring visually dramatic landscape and is further endowed with the various species of bird, insect and animal life which also call it home.

The purpose of this document is to demonstrate the design ethos and provide the architectural/design guidelines for prospective stand owners of Moquini Bay.

All proposed interventions (architectural/landscape) should not seek prominence or to overshadow but rather respect and resonate with nature and local climatic conditions. The guidelines are to be referred to and used in conjunction with the SANS (South African National Building Standards 10400) as well as the CAM (Cape Agulhas Municipality) Zoning Scheme.



Figure 1: Map showing wider context and location of Moquini Bay





2. Moquini Bay Ethos

2.1 Moquini Bay Objective

Moquini Bay DC reveres distinct, contemporary architectural concepts which respects their surroundings. We encourage owners and architects to draw inspiration from the solitary, forlorn vessel on the jagged and perilous L'Agulhus coastline reef, from which forms the basis of an architectural language inspired – timeless buildings poised in nature! We believe in the future of buildings aesthetically in harmony with their surroundings whilst utilizing the advantages of innovation and technology with emphasis on sustainability.

As a prospective property owner, Moquini Bay presents the chance to partner with an architect to develop a one-of-a-kind concept that suits your stand best – creating a beautiful and enduring tribute to your imagination and ingenuity. Let us collaborate and turn your dream into a reality!

2.2 Moquini Bay Location

Moquini Bay is an Eco Residential Estate managed as a Nature Reserve with a low-density residential footprint.

On the western side Moquini Bay borders the Blinderivier flowing through rocky ravines and forming a lagoon that regularly breaks open into the sea. On the southern side Moquini Bay borders the Indian Ocean with a sea front of approximately 1,3 km with mainly open beaches.

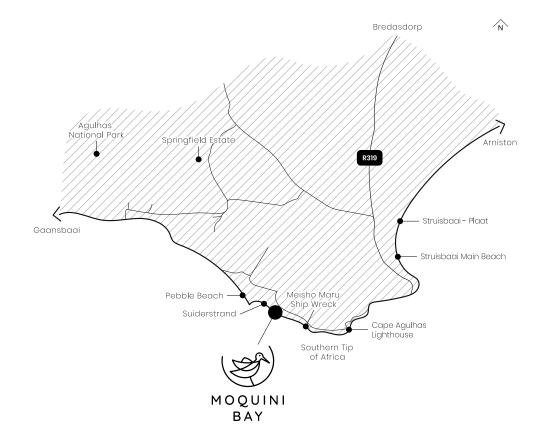


Figure 2: Map showing Moquini Bay location

2.3 Interpretation

The Guidelines

A "design control document" which contains the written rules (enforceable) and guidelines (suggestions) set out to ensure the best architectural aesthetic and environmental outcome for the Moquini Bay Development.

The DC

The Design Committee consists of designated architects; BIRU Architecture and Design and selected Moquini Bay share holders. The DC is in-charge of aesthetics and upholding the architectural guidelines. The DC is established to ensure the estate ethos is spoken for throughout the Moquini Bay Development.

The HOA

The Home Owner Association consists of Homeowners of the Moquini Bay Development as well as the DC. The HOA has the ability without limitation to annex against rules promulgated under the guidelines.

Homeowner

The purchaser of the Property in terms of the Deed of Sale.

Property

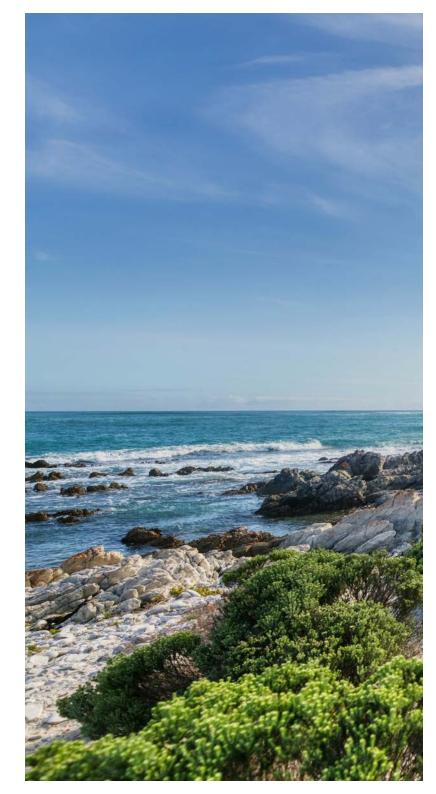
The property sold by Moquini Bay Developments to the Purchaser or a resale Erf forming part of the development.

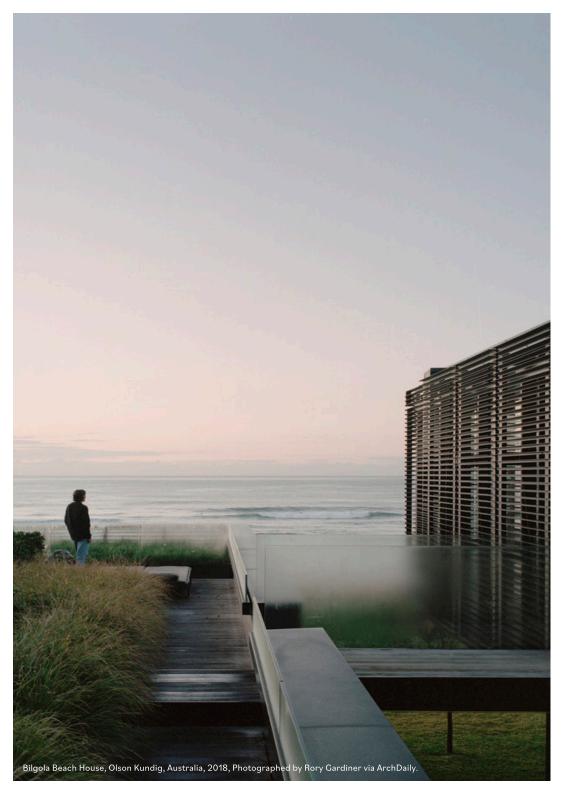
The Ethos

The characteristic spirit of a community as manifested by its actions & attitudes.

Eco Residential Estate

A private housing estate managed as a nature reserve with a low-density footprint.





3. Design Review

3.1 Design Review Process

The objectives of the Design Review are to ensure consistency and coherency to establish an architectural style within Moquini Bay and to guarantee quality of work with a new luxury Eco Estate.

The submission fee covers the following: The review of the Design Review Package. Once submitted the Package will be inspected by the DC and members of the HOA. A confirmation meeting will then be scheduled between the Homeowner, the respective architect, DC & HOA.

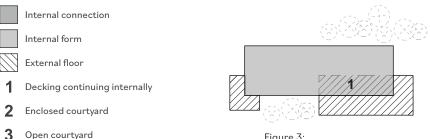
Alternatively, if the Design Review Package does not satisfy the DC & HOA it will be sent back to the package author with a list detailing the relative recommendations.

Only once the Submitted Drawings have received the stamp of approval from the DC & HOA, may they be sent off to CAM building control for local authorities approval.

3.2 Design Submission Requirements

List of requirements for the Design Review Package:

- 1. Professional SACAP registration certificate.
- 2. Letter from architect confirming; Plans comply with latest published Moquini Bay regulations & agreeing to a minimum of one site visit per month by the proposed architect during construction phase.
- 3. Architectural Drawings: A full set of council submission drawings and design drawings, illustrating the elevation and finishes to the building.
- 4. Proof of payment for a submission fee of R7,500 (excluding VAT) to Design Committee.



- Open courtyard
- Wall to vegetation 4

Figure 3: Linear typology diagram

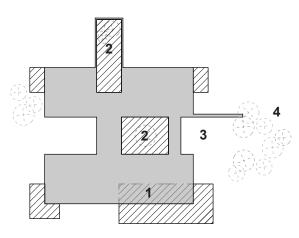
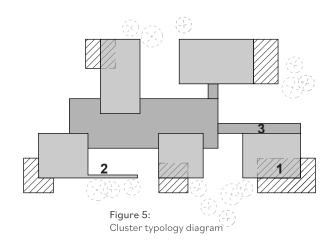


Figure 4: Courtyard typology diagram



4. Typologies

Plan configurations are suggestions to get the best potential from the stand. We encourage simplicity and clarity in architectural forms and planning.

Linear Typology 4.1

Linear configuration which can exist as single or multiple rectilinear shaped spaces connecting in a parallel or perpendicular format. External floors may sprawl between the buildings however walls and spaces maintain a linear language. Linear design is suitable when maximizing views and sloping sites.

4.2 Courtyard Typology

A single building form fragmented by the incorporation of courtyards (enclosed or semi-enclosed unroofed spaces).

Courtyards allow for the creation of layered, visually interesting, and deep spaces. Courtyards give rise to the opportunity to become connective open space between interior areas. They also invite greenery and light into internal spaces while providing privacy and protecting against external factors such as wind and adverse weather.

4.3 Cluster Typology

A linear style configuration divided into multiple space-forms connected by thresholds. Not all thresholds need to be entirely enclosed, however, the incorporation of courtyards are encouraged. This typology is more complex but makes for interesting, larger designs which utilize unenclosed external spaces and open-ended boundary walls.

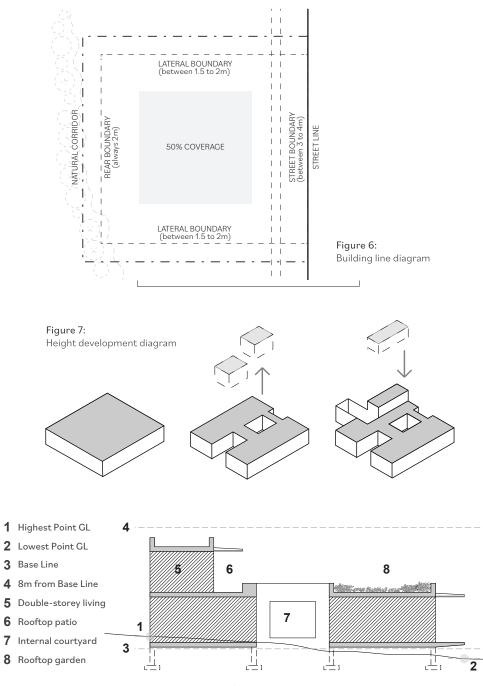


Figure 8: Section diagram AA; double storey height

5. Design Parameters

5.1 Maximum Coverage

Each Stand is greater than 500m2 thus the buildings are allowed a maximum coverage of 50% of the stand/erf (refer to figure 6).

5.2 Lateral Building Line

The average width of the property is calculated by adding the length of the street boundary and the rear boundary and dividing it by two. If the building's average width is less than 20m, a 1.5m lateral building line is required.

If the building's average width is 20m or more, a 2m lateral building line is required (refer to figure 6).

5.3 Street Building Line

If the building's average depth is less than 20m, a 3m street boundary is required.

If the building's average depth is 20m or more, a 4m street boundary is required (refer to figure 6).

5.4 Rear Building Line

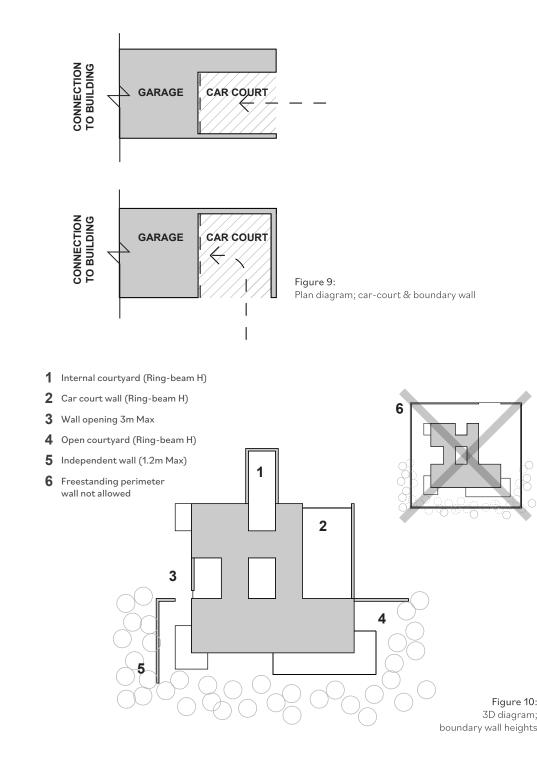
Rear building line is always at 2m (refer to figure 6).

5.5 Maximum Height

An 8m building height restriction is implemented from the base level (BL).

The base level is determined by calculating the average between the highest point of ground level (GL) immediately adjacent to the building with the lowest point of ground level immediately adjacent to the building (refer to figure 8).

Double storey living spaces should be proportionate to whole building and incorporate balconies and rooftop gardens (refer to figure 7 & 8) (Reference: Zoning Scheme Regulations in the Cape Agulhas Municipal Area, 2014)



5.6 Garages & Driveways

Driveways and Parking spaces are to be smoothly graded, adequately drained with suitable sub-grading, base and surfacing to be durable under use and low maintenance. The DC recommends a continuation of the gravel paths from road to stand to garage. Exposed aggregate and approved permeable paving blocks are encouraged. (Reference: Zoning Scheme Regulations in the Cape Agulhas Municipal Area, 2014)

Car-court:

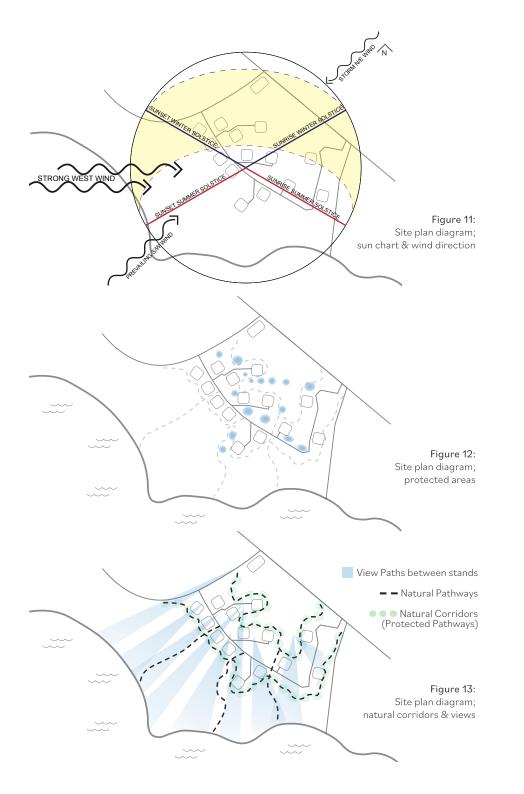
The DC and HOA encourage car courts as an attempt to keep visibility of vehicles at a minimum. Prior to the garage there may be a car court; a threshold to buffer between the garage and driveway. The car court can be visible from the road, as it can be used to obscure the garage and garage entrance from the road or neighbours (refer to figure 9).

Garage:

Minimum of 2 off-street parking bays are recommended as per municipal regulations. Garage or storage sheds may not be stand alone buildings or sit on the perimeter of the stand, they need to be connected to the primary building envelope. No other temporary structures allowed on site. (Reference: Zoning Scheme Regulations in the Cape Agulhas Municipal Area, 2014)

5.7 Boundary Walls

Boundary walls are allowed if appearing to be part of the primary building. Some Fencing is allowed if it blends into natural vegetation. Walls that are attached to the building may continue at Ring Beam (RB) height. If walls stand independent to the building they may not be located further than 3m from the primary building or be taller than 1.2m. Independent walls must terminate in natural vegetation and blend into the landscape. Natural Fynbos Hedges may be planted between stands with vegetation listed but not within natural corridors (refer to figure 10 & 13).



5.8 Site Context

Land-form:

Undulating land and existing vegetation needs to be considered in the design process. The building design must take into account natural contours of the land.

Climate:

Wind directions and the sun angles must be taken into consideration when designing. South Westerly and North Easterly winds are prominent. Building orientation must reference the sun cycle for effective passive strategies, the prospective owner/architect is encouraged to take into account climate conscious design (refer to figure 11).

Protected Shell Midden Zones:

Stone tools, stone fish traps and shell middens are all evidence of the predecessors that once roamed the shores of this coast. The Shell Middens are visible on the map and must be protected and treated the same way as natural corridors; no disruption shall come to these areas. The DC and HOA acknowledge the owners and custodians of this precious piece of land (refer to figure 12).

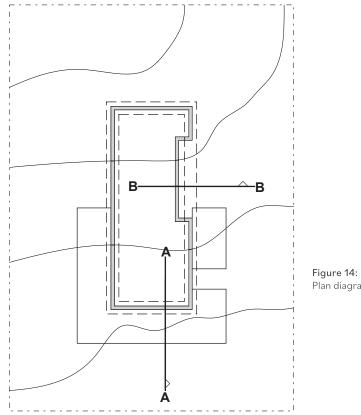
Natural Corridors:

Moquini Bay has designated natural corridors across the estate. The natural corridors hope to preserve pathways across the estate and allow for public shared space between stands. No built form or boundary walls may be located within natural corridors (refer to figure 13).

Context Views:

Moquini Bay is surrounded by breathtaking views, it is understood that the view of the Indian Ocean takes preference. Stands are laid out in such a way that this ocean view can be enjoyed, in some form or another by all.

We encourage effective use of sites and taking into consideration your neighbours future view (refer to figure 13).



Plan diagram; raft slab set-back

6. Foundations

6.1 Raft Slab

The estate consists of a sandy soil type where Raft Slabs or Pile footings are recommended, but must be designed by a registered structural engineer. It is encouraged for the foundations to be setback from the building perimeter. Slope backfill can be used to divert surface water away from the building where possible (refer to figure 14).

6.2 Floating Slab

Utilize cantilever ground floor decks & outdoor terraces in such a way that they conceal where the structure comes into contact with the earth, especially on the lowest points of the stand. This will make the building appear to be floating, creating a softer transition between building and landscape (refer to figure 15 & 16).



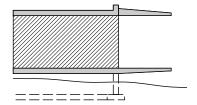


Figure 15: Section AA diagram; floating slab balcony

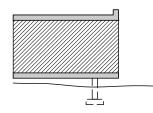
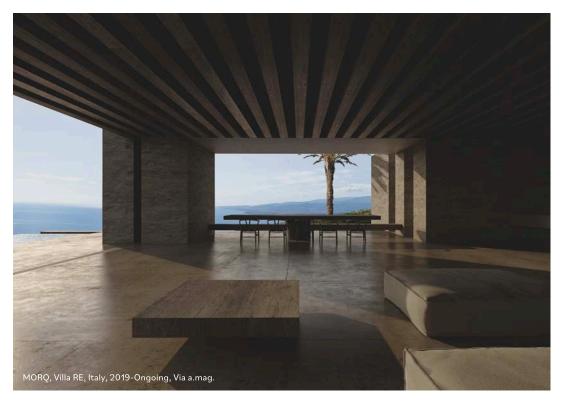


Figure 16: Section BB diagram; floating slab building edge





7. Floor Finishes

7.1 Internal Floors

A soft sanctuary within the hard outer shell. Neutral earth toned materials work together in creating a softer neutral base for internal spaces.

Internal materials should make use of light, soft and textured materials.

Using the same material in lighter tones internally and darker tones externally is recommended for consistency.

- Natural Timber Flooring (Walnut/Oak/Iroko/Ash)
- Engineered Hardwood Flooring (Bestwood/Oggie or similar approved)
- Natural stone/Ceramic tiles
- Terrazzo/Exposed polished screeds
- Corcoleum (Maplette)

7.2 External Floors & Decking

A fort for its residents that is able to blend into the surrounding vegetation.

External materials should make use of a darker colour palette and appear cohesive with nature.

Maintenance and material wear within a coastal environment must be considered.

- Balau/Garapa Timber decking
- Terrazzo/Exposed polished screeds
- Black or Terra Cotta Klompies
- Non-slip Natural Stone tiles



8. Wall Finishes

8.1 Internal Walls

The internal walls need to reflect a welcoming atmosphere that can accommodate shelter. Soft and well textured materials create a comfortable and warm internal space.

A colour palette of neutral matte paints and material finishes will be provided.

- Textured plasters/textured paints
- Natural Timber Cladding
- Engineered Hardwood Cladding
- Natural Weaved Grass wallpapers
- Natural Stone tiles

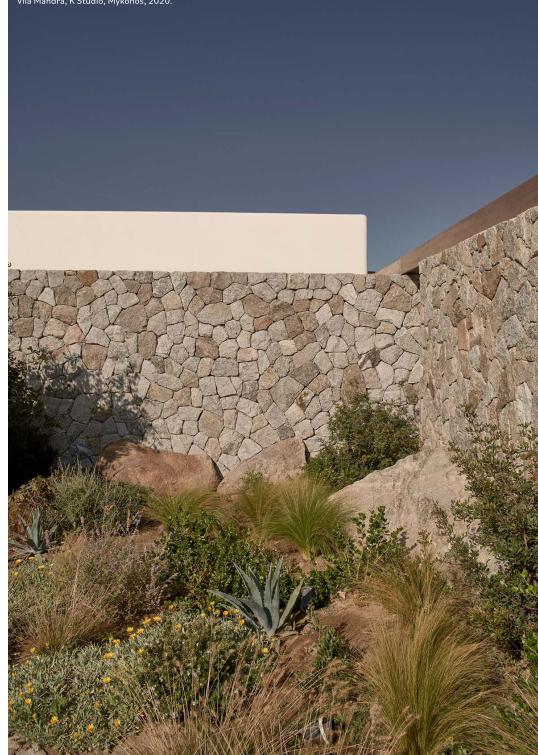
Internal Lighting:

Lighting design is important in creating soft internal spaces.

Recessed lighting for areas with flat ceilings is recommended.

Adjustable surface mounted, recessed down lights or adjustable track lighting for exposed truss ceiling spaces.





8.2 External Walls

A shipwreck scattered coastline informs us of the harsh realities of the environment and climate along the most southern tip of Africa.

The exteriors of these buildings need to be strong enough to endure these, at times, harsh conditions.

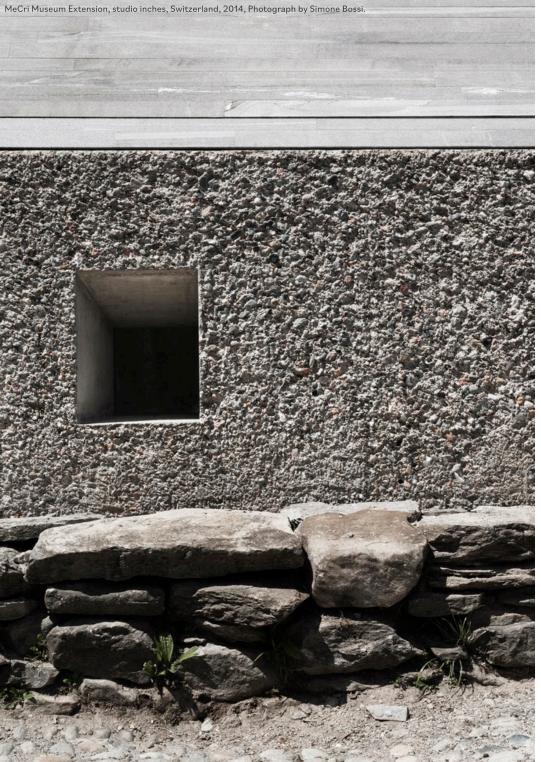
Cooler, neutral, matte tones and more heavily textured materials will make up the external material palette.

Material maintenance and natural aging needs to be considered.

Sun-dried or cement stabilized earth bricks are an alternative to conventional clays and cement bricks as they have good thermal mass and store heat effectively.

- Core10 Steel cladding •
- Natural Stone (Dry Stack/cladding) .
- Off-shutter Concrete .
- Textured plasters/textured paints (No bright colours) .
- Balau/Garapa Timber cladding .









8.3 Wall Aperture Ratio

The window to wall ratio is defined by SERVED (living, dining, bedrooms) and SERVING (kitchen, bathroom, laundry) spaces.

Served spaces are better suited to be expansive, 80% of wall space may be allocated to openings. Serving spaces are often designed around catering and are more private, 30% of wall space may be allocated to openings. An exception to the guide is made for any wall adjoining an internal courtyard, 80% of wall space may be allocated to openings (refer to figure 17 & 18).

Screens:

Fencing and screens follow the same guidelines as boundary walls, and must appear part of the primary building.

If fencing is required in the case of domestic animals then low lying horizontal wire fencing or low walls are allowed. Fencing should kept at a minimum, so that the boundaries between stands appear blurred.

Railing:

The Brookie lace, ornate designs, cast iron work, decorative plaster moldings are not allowed. No palisade walls or fencing are allowed.

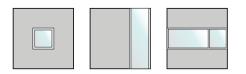


Figure 17: Elevation diagram; Serving areas (30% opening allowance)



Figure 18: Elevation diagram Served areas (80% opening allowance)



9. Windows & Doors

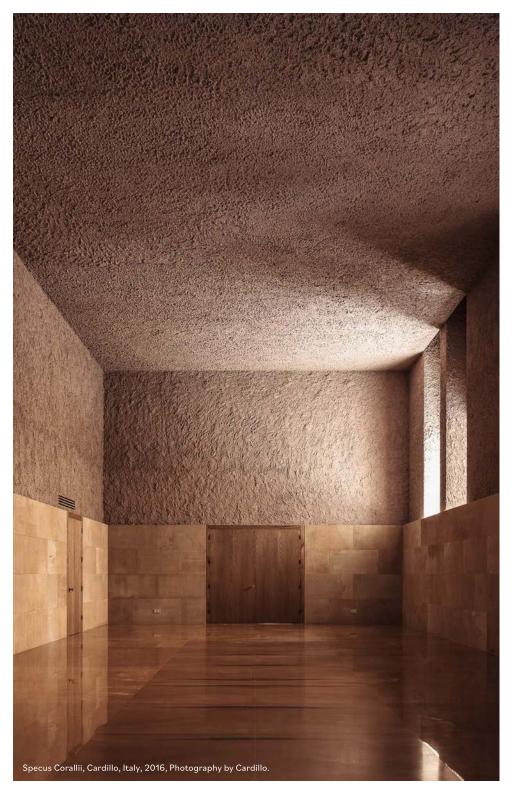
9.1 Style

Window & Door placement should consider Passive Solar design principles such as orientation, shading & cross ventilation to reduce reliance on artificial energy input. Double glazed windows must be used where possible. Ventilation sliding windows allow a 50% breeze to pass. Ventilation fixed louvres allow up to 95% breeze to pass. Casement windows are able to redirect breeze. Fixed framing windows don't allow breeze and are best as storey windows.

9.2 Frames

Aluminum frame finish may be left anodised or powder coated. Timber may be left untreated to turn silvery grey or stained in a very dark colour (Imbuia or Ebony).

- Aluminum in Matte Tones (grey/matte black/charcoal)
- Engineered Hardwood (Interior swing/pocket sliding doors)
- Core10 panels (Picture window frames)



10. Ceilings

10.1 Exposed Structure

The tectonic expression of timber or steel trusses or beams, especially in spaces with larger volumes are permitted.

Generally services such as ducting and electrical wiring of AC, lighting and electrical equipment must be concealed within the ceiling space, although specialist designs will be considered.

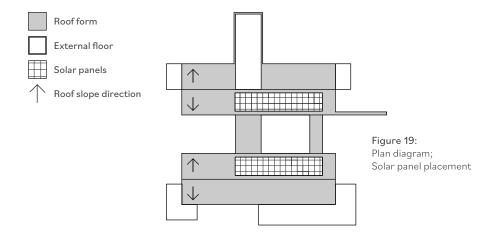
- Timber boarding/ Timber slats
- Engineered Wood
- Off-shutter Concrete

10.2 Concealed Structure

Fully skimmed and plastered ceiling boards such as Nutec or similar, with aluminum shadow line cornices are permitted.

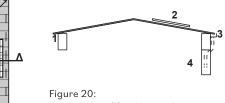
Avoid using classical cornice moldings to keep with a contemporary architectural aesthetic.

• Plastered and painted (smooth/textured)



Plan & Section Diagram Roof Design

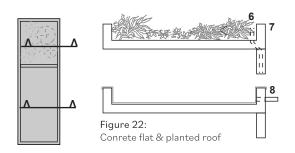
- 1 50mm overhang
- 2 Solar panels
- 3 Gutter
- 4 Concealed Rainwater DP
- 5 Flat Roof as Gutter
- 6 FBO Gutter
- 7 Planted parapet 300mm
- 8 Custom Water spout



Low pitch roof & solar panels



Figure 21: Mono pitch & flat roof gutter



11. Roof

11.1 Roof Design

Simple roof forms recommended with a continuous ridge-line and continuous eaves lines. Suitable roof overhangs must be considered to allow the winter sun in and to encourage the shade in summer where possible.

Low Pitch Roof:

Sheet metal roofing is recommended with a low pitch and hipped edge (gable not permitted), ranging between 20- 60 pitch. The solar panel is to be located on the interior pitch, reasonably concealed from public view (refer to figure 20).

Mono Pitch & Flat Roof:

A hybrid between Mono Pitch roof that allows a fixed storey window as well as a Flat concrete roof that acts as a gutter is allowed and encouraged (refer to figure 21).

Concrete Flat Roof:

Standard concrete flat roof or planted concrete roofs are both allowed. Standard flat strategies make use of custom designed water spouts for water drainage. If planted, additional waterproofing is required with a concealed DP and gutter at maximum height of the parapet which is 300mm (refer to figure 22).

11.2 Solar Panels

Solar panels are to be positioned in such a way that they are exposed to maximum sun, while simultaneously minimizing visibility to neighbours. Solar panels may be located on the inward facing roof pitch to be as discreet as possible within the development.



11.3 Roof Materials

Dormer windows, skylights or roof lights are encouraged where possible.

With metal roofs, minimal roof profiles are recommended.

Collection of rain water from the gutters must be implemented where possible. Exposed metal downpipes are not permitted.

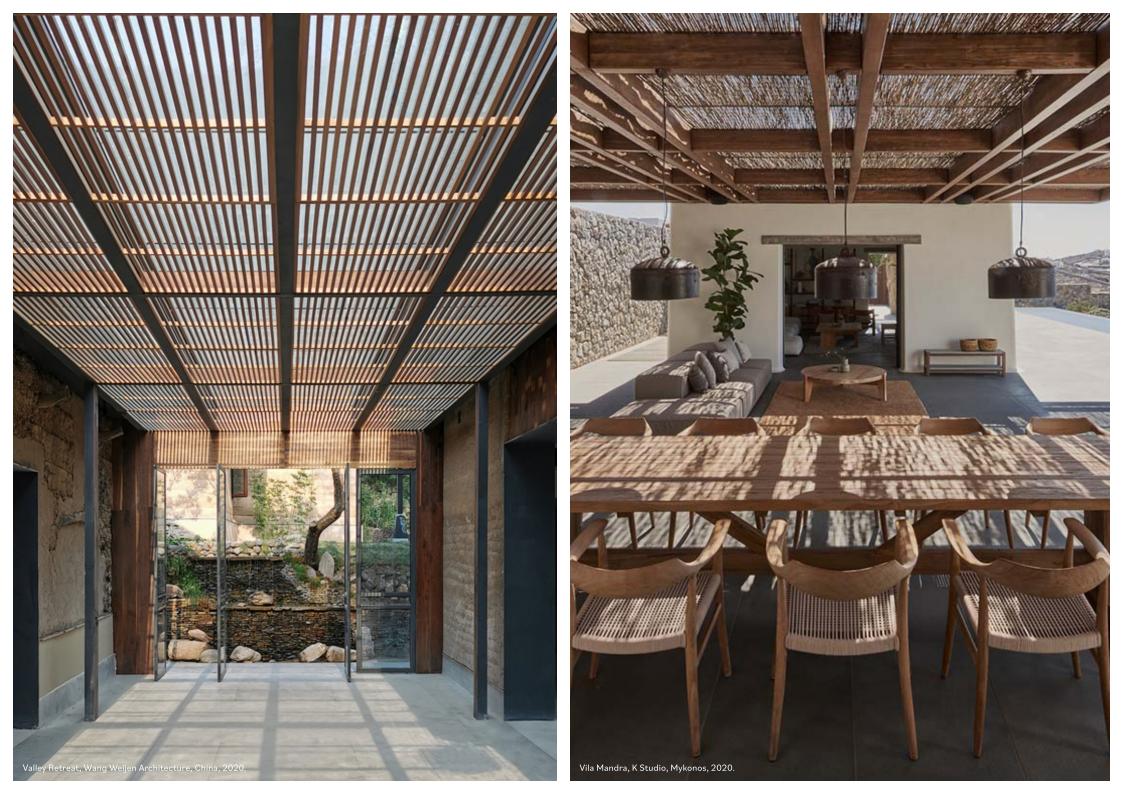
Colorbond AZ 200 Matt (Diamond Deck, Victorian or simillar approved profile)
Rheinzink

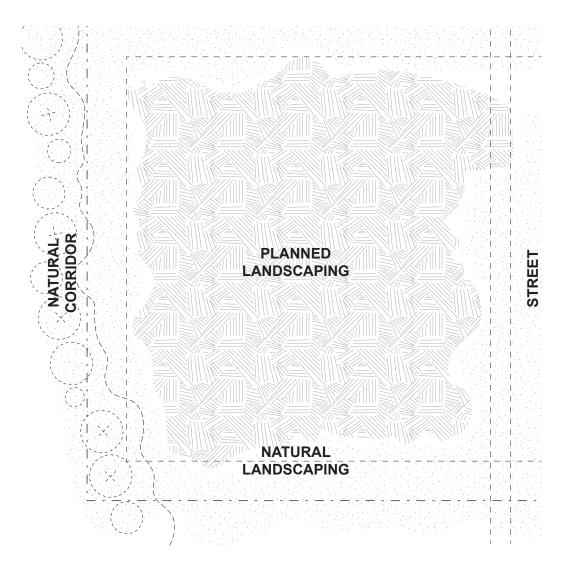
11.4 Pergolas/Shading Devices

Pergola roofs to provide additional shade to external areas is recommended to make use of more natural materials.

These may be a part of the primary building form or stand independent of the building.

- Timber Battens (Balau/Garapa)
- Weaved Reed







12. External Elements

12.1 Landscape Design

Landscaping must be sympathetic to the natural topography and vegetation in terms of line, form and plant choice.

Natural planted areas must comprise at least 70% of the landscape area.

Lawned areas are not encouraged, and may not exceed 30% of the overall landscape area or comprise of couch grasses.

All stand edges should be left informal, with no definitive boundaries.

Vegetation management aims to preserve the existing fauna and flora as best it can, so no blanket clearing of vegetation is allowed.

Indigenous or water wise plants must be planted to reduce water usage and plants with similar water requirements must be planted together.

All land outside of stands are part of the Eco Residential Estate and are to be treated as a Natural Reserve (refer tofigure 23).

Moquini Bay DC recommends prospective stand owners/developers make use of registered/recommended landscapers and when planting, only to incorporate endemic plants.

See plant species list in Section 13.

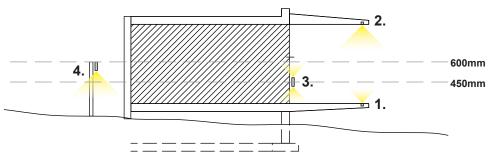


1. Concealed deck up-light

2. Concealed covered terrace down-light

Figure 24: Section diagram; Exterior lighting placement

- 3. Wall mounted up-down-light
- 4. Bollard mounted down-light



12.2 Hardscaping

Hardscaping is to be kept to a minimum and may not exceed 15% of the overall landscape area.

12.3 Lighting

Light pollution must be taken into account when considering external lighting design.

Fluorescent, dimmers and motion sensors must be used to reduce energy consumption where possible. All exterior lighting must be mounted on the buildings.

Upward facing lights may be concealed within decking or positioned on walls 450mm high. Downward facing lights are allowed at Ring Beam height in covered terrace areas or on walls or posts 600mm high.

Solar powered sensor garden lights are allowed (refer to figure 24).

12.4 Electricity

Use of energy efficient equipment, solar panels and geysers where possible.

Geysers can be installed vertically or horizontally, concealed and covered with geyser blanket to save electricity.

12.5 Water

It is recommended for showers to be fitted with low-flow shower heads.

These must be well balanced with geyser pressure. Ensure maximum flow rate from a hand basin does not exceed 6l per minute. The flush toilets must be fitted with dual flush mechanisms to ensure the amount of water required is controlled by the user.





13. Plant List Appendix

Acacia cyclops A.Cunn. ex G.Don Agathosma dielsiana Schltr.ex Dummer (LR-lc) Bassia diffusa (Thunb.) Kuntze Carpobrotus acinaciformis (L.) L Cassytha ciliolata Nees Chironia baccifera L. Chrysanthemoides monilifera (L.) Cineraria geifolia (L.) L. Conicosia pugioniformis (L.) N.E.Br. Cotula turbinata L. Crassula glomerata P.J.Bergius Cynodon dactylon (L.) Pers. Dasispermum suffruticosum (P.|.Bergius) B.L.Burtt Dimorphotheca fruticosa (L.) Les Dimorphotheca nudicaulis (L.) DC Dischisma ciliatum (P.|.Bergius) Drosanthemum intermedium (L.Bolus) L.Bolus Ehrharta villosa Schult.f. var.maxima Euclea racemosa Murray Ficinia filiformis (Lam.) Schrad Galium tomentosum Thunb. Hebenstretia cordata L Helichrysum dasyanthum (Willd.) Helichrysum patulum (L.) D.Don Ischyrolepis eleocharis (Mast.) Isolepis prolifer R.Br. Metalasia muricata (L.) D.Don Morella cordifolia (L.) Killick

Morella quercifolia (L.) Killick MARZIE Ecological services. 67 Muraltia satureioides DC. var. satureioides Oncosiphon sabulosum (Wolley-Dod) Kallersjo Otholobium bracteolatum (Eckl. & Zeyh.) C.H.Stirt. Passerina ericoides L. Passerina rigida Wikstr. Passerina paleacea Wikstr. Pentaschistis calcicola H.P.Linder Phylica stipularis L. Rhus crenata Thunb. Rhus glauca Thunb. Rhus laevigata L. var. laevigata Rhus laevigata L. var. villosa Rhus lucida L. Sarcocornia littorea (Moss) A.J. Scirpoides nodosus (Rottb.) Sojak Senecio arenarius Thunb. Senecio elegans L. Silene undulata Aiton Solanum africanum Mill. (LR-lc) Solanum nigrum L. Tetragonia decumbens Mill. Tetragonia fruticosa L. Tetragonia herbacea L. Thesidium fragile (Thunb.) Sond. Thinopyrum distichum (Thunb.) A. Trachyandra divaricata (lacq.) Kunth

CONTACT:

MARISKA HAMEL MARISKA@MOQUINIBAY.CO.ZA +27 82 347 7070 +27 65 882 7417

> FOR MORE INFORMATION: WWW.MOQUINIBAY.CO.ZA

> > @MOQUINIBAY (f) (



DISCOVER A PLACE LIKE NO OTHER