

# urban futures

**BANYAN TREE SEYCHELLES** REDUCE, REUSE, RECYCLE URBAN AGRICULTURE...... RECYCLING OF OLD BUILDINGS HOUSE ON SAFFRON.. PROJECT UPDATES ......CMAI'S OFFICE TRANSFORMATION

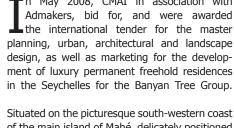
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CMAI. The Boatshed. Thesen Islands. Knysna, South Africa

www.cmai.co.za

## banyan tree seye n May 2008, CMAI in association with

As one of the leading owner-developers of a premium range of resorts, hotels and spas, the Banyan Tree Group is renowned as an international award winning organization operating throughout Asia, Indonesia and the Pacific.



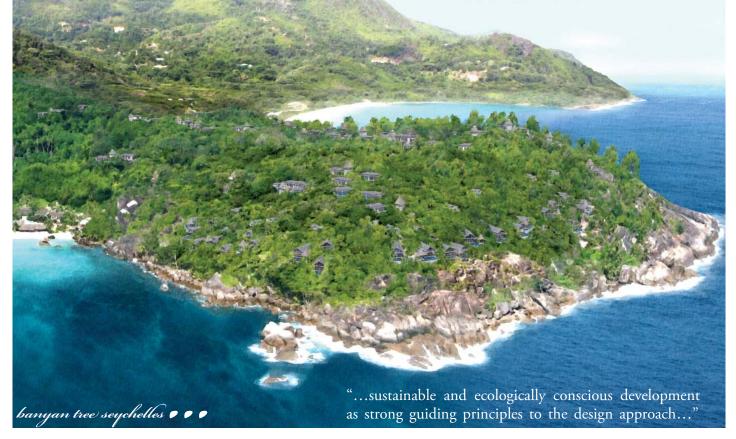
of the main island of Mahé, delicately positioned between Intendance and Takamaka Bay, the development consists of 48 magnificent private residences that border the existing Banyan Tree Seychelles Resort. With spectacular views of a turquoise Indian Ocean, the graceful swaying of palm trees within the lush tropical forest and one of the world's most pristine talcum powder beaches, the site provides an extraordinarily rare taste of paradise. The site has been classified as an Area of Outstanding Natural Beauty ( AONB ). With a comprehensive understanding of sustainable development principles and environmentally conscious design, CMAI proposed to develop a site layout plan and residential unit design that would optimise development opportunity on site whilst retaining the optimum privacy, exclusivity and desirability of Banyan Tree's signature blend of romance, rejuvenation and exotic sensuality. Drawing inspiration from a variety of cues

and stimuli unique to Seychellois architecture and culture, the design team aspired to define a contemporary reinterpretation of the local vernacular. With this sensitive approach to the local context, in conjunction with the unique characteristics and experience of the site, the primary driving ideology behind the design concept was to reinforce the fundamental sense of place; the essential qualities of the site that would guide the design process whilst creating something capable of adding value to the site, for the client and the local environment. After extensive on-site analysis and exploration, the Urban Designers and Architects from CMAI jointly identified 48 potential sites for development. Each site was hand-selected by CMAI and surveyed by SJ McMillan Professional Land Surveyors to ensure a careful balance between minimizing the overall visual impact of the building, against maintaining a strong sense of privacy and maximizing potential views, with varying stand sizes allowing a variety of private residences to be considered. These residences range in size from predomi-



nantly two-bedroom luxury units with a limited number of three-bedroom and five-bedroom

luxury units accommodated on larger stands. The average stand size is approx 1400 sq meters and the units will be sold completely built.



Preserving the critical sense of privacy and seclusion, each residence is delicately integrated into the landscape, stepping down the site in an effort to ensure the integrity of the horizon is maintained. Tucked away between natural rock features and thriving forest vegetation, the placement of the main building form further ensures that the main living areas are not visible from the access road. Composed of a series of fragmented volumes and spaces linked with walkways and passages, the design form is comparatively flexible, ensuring that it is compatible with any particular site condition as well as allowing for a variety of connecting platforms, boardwalks, pool decks and large overhangs. The fractured nature of this form further allows additional structures and features to be added readily to the existing building forms without compromising the natural beauty of the site by encouraging the building to step with the landscape.

Similarly, vertical tower elements mimic and respond to the dominant tree-line, articulating the design's vernacular roots whilst maximizing the breathtaking views. In this manner, the ephemeral quality of the architecture aims to minimize the visual impact of the building form as far as possible by maintaining the tree-line without unnecessarily breaking the horizon.

"...design form is comparatively flexible, ensuring that it is compatible with any particular site condition..."

Each stand is accessed via a sensitively positioned access road which will be upgraded in the same manner as the existing Banyan Tree buggy roads. Parking for up to two electric buggies will be provided for each house.

With sustainable and ecologically conscious development as strong guiding principles to the design approach of CMAI, Admakers and Banyan Tree Seychelles, a number of active and passive "green" measures were considered,

together with drive towards zero waste. These include a variety of environmental systems ranging from the orientation of the building form to maximize exposure to cooling breezes and views; elevating the building form to encourage airflow whilst maximizing the use of natural lighting; the use of renewable and recyclable building materials such as sustainably harvested timber; solar water heating and rainwater collecting systems; energy efficient appliances and lighting; dual flush water cisterns with on-site waste treatment systems, and; the retention of existing site features and natural vegetation to minimise the negative impacts and enhance the positive aspects of the development.

Due to the sensitive nature of the site, control over the positioning and architectural character of the residences will be managed with a comprehensive design codebook. The codebook serves as the principal regulating document within the development, and addresses all detailed guidelines. Consequently, the Design Codebook will hold significant weight in ensuring the necessary restrictions and regulating guidelines are adhered to during the operational phase of the development.

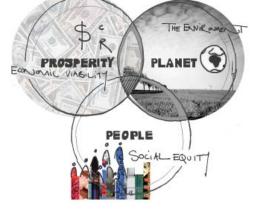
Banyan Tree Seychelles, CMAI and Admakers will be co-developing this project and all residences will be sold off on a freehold basis and managed by the resort. DJ Environmental Consultants, a leading environmental practise from Cape Town will be responsible for the Environmental Impact Assessment. From a development perspective, the residences offer a unique opportunity to draw inspiration from the dramatic surroundings and Seychellois hospitality, presenting a highly desirable setting capable of further building upon the Banyan Tree Seychelles' international reputation as a world class destination; an exceptional sanctuary for the mind, body and senses.







The project will be launched in mid 2009. For more information contact thea@theboatshed.co.za



# reduce, understand reuse, r e c y c

C e ... by Dr. L de Lange:

At CMAI, we believe it is our business to pursue sustainability within our projects. Widely used out of context, and often without a holistic understanding of its implicit meaning, the term "sustainable" is in a broad sense the capacity to maintain a certain process or state indefinitely.

In recent years, this concept has been applied specifically to the sphere of development in the form of the "triple-bottom-line" approach which is characterized by the harmonization of three significant components: the environment, social equity and economic viability. CMAI subscribes to an approach that advocates long-term environmental protection and social equity, with the aim of achieving sustainability within a framework of five fundamental principles for a healthy "triple-bottom-line". These principles are: (i) environmental sustainability, (ii) human advancement and social justice, (iii) equitable economic prosperity, (iv) good governance and institutional building, and (v) the use of appropriate and best technologies.

### **URBAN AGRICULTURE**

While often understood from a more urban context, sustainability is particularly evident within the rural setting, with many farms and remote areas being predominantly self-reliant due to limited external resources. While this is not a new concept, the advent of the 21st century lifestyle has begun adapting this sustainable approach in the form of New-Ruralist hamlets and agri-villages, providing easy access to public and commercial amenities, increased community interactivity, increased cost-effectiveness of services and providing a simplified, higher quality lifestyle. The appeal of the rural countryside is clearly evident in places like Franschhoek, Greyton and De Rust, where fresh air and the impression of openness draw a select crowd seeking a better quality of life.

With the rapid expansion of our urban centres, and technology advancing at an astonishing rate, life in our rural towns and hamlets is steadily becoming more enticing to a diverse range of people. Particularly as a result of growing concerns with respect to world food shortages, rising costs and dwindling natural resources, the introduction and incorporation of food production and urban agriculture components should be evaluated as a tactic of necessity.

With CMAI's strategy towards delivering healthy, sustainable places to live, the inclusion of several urban agriculture initiatives within various development projects will aim at successfully merging urban and rural agriculture food components in a manner that can address a number of diverse demands.

Urban agriculture can be encouraged and implemented in a variety of manners, and at differing levels of density, including roof gardens, private greens, neighbourhood parks, common greens and along streetscapes, as well as in open fields.

Within the five fundamental principles mentioned previously, specific functional elements will be focused on, for example:

5. Sustainable & renewable energy - the aim of each development is to become as self-sufficient with regards to energy as possible. Various renewable and sustainable technologies are used to ensure that this aim can be achieved.

 Soil as a resource – often underestimated, a healthy soil not only ensures a healthy growing environment for crops and plants, but will also act as a pool within which to capture atmospheric carbon.

3 . Water as a resource – with an awareness of limited water resources, CMAI incorporates a range of techniques that help to ensure the economic use, and reuse, of water within each development.

Waste as a resource - in any development, waste will be generated in various forms and must be managed completion. after Numerous opportunities benefit to from available waste are however, including composting, biogas, water recovery from sewerage and recycling of solid waste with the aim of zero landfill

By encouraging food production, the development can inspire a greater respect, awareness and understanding of food resources, as well as positively impacting on the environment by subsidizing demands placed on the earth.

Fresh food production would naturally be profitdriven, fuelling socio-economic upliftment for those associated with the agricultural operations.

Sustainability must however be qualifiable and quantifiable. As these principles are administered within a project using a Sustainability Management System (SMS), the results achieved must be measured with the aim of credible certification of the level of sustainability achieved and maintained within a development. All functional indicators of sustainable levels achieved are measurable on an ongoing basis, including human advancement and social justice during and after completion of a project.

Through this, the approach aims at encouraging a more productive and conscious lifestyle for all walks of life, income and age in a comprehensive and sustainable manner. As such, our strategy towards delivering healthier, more desirable places to live has become deeply entrenched with the process of ensuring the long-term sustainability of each of the development projects the company undertakes.

In this manner CMAI intends to make this development ideology of food sustainability one of the hallmarks of its international reputation as a leading urban and rural development company and architectural firm.











\* Images from THE JOURNAL OF LANDSCAPE INSTITUTE



#### flamink vlei velddrif, WC

ituated along the southern bank of the Great Berg River, Flamink Vlei is a West Coast Dagricultural lifestyle development opposite the town of Velddrif. Based on the concept of New Ruralism, the **360** Ha [594 units] development project will incorporate two residential marina villages, including a variety of residential stands to cater for a diverse range of ages, population and income groups. The development will also include a boutique hotel specifically designed for bird watching, forming an integral part of a planned Flamingo Route. Incorporating over 100 Ha of existing saltwater holding dams as part of a new salt mining operation, as well as a new boating canal system and world class Blue Flag Marina and small boat harbour, the development aims at successfully integrating itself in a harmonious and mutually beneficial manner with the sensitive ecosystem of the Berg River estuary.

One of the interesting approaches adopted by CMAI and its team of professional consultants for Flamink VIei is the inclusion of a large intensive and extensive aquaculture (fish farming) component in addition to the agricultural component. Through this, the development aims at revitalizing the local fishing industry by providing numerous jobs, facilities and amenities for local residents, instilling a greater respect for dwindling ocean resources and fish stocks, as well as responsibility for local food production. It should be noted however, that despite the great potential supporting infrastructure and promising opportunities these components present, support from provincial and national authorities is cautious if not discouraged. Despite legislation and planning constraints taking a substantial amount of time, the development is constantly improving and evolving with each design cycle. The layout plan, already on alternative 7, has been submitted for final scoping and is currently awaiting approval before commencing with the thorough EIA process. In addition, the Berg River Municipal council has agreed to include the development area within the urban edge, and CMAI is confident that the development will be approved shortly to assist with the alleviation of poverty in the region.

The development philosophi, 11

Ha [733 units] site situated near Thornhill in the Eastern Cape, is the conception of a rural agricultural node that will give residents the opportunity to live and experience an active farming lifestyle without having to manage the day-to-day operations. The home owners, farm management and workers will each have an equal share in the farm, giving previously disadvantaged workers the opportunity of ownership and guidance within the core development.

The development philosophy behind the 560

An integral part of the design is to develop land not currently used for agricultural purposes, clearing these areas of alien vegetation and reintroducing part of the site into the adjoining Wild Flower Reserve. Large areas of localized agriculture will also be included in the development, consisting of a diverse range of fruit tree orchards in all public open spaces and along major streetscapes. As with the Boplaas development, all produce will be maintained and harvested under the control of the home owner's association, with profits being used to subsidise levies and encourage economic upliftment.

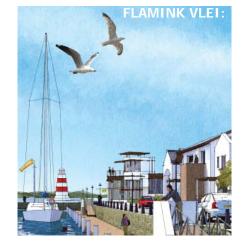
The development will also include a state of the art milking parlour and training facilities for dairy farming. In addition to the commercial dairy farm, Crossways + Sunnyvale has been identified by the Eastern Cape Holstein Society as the preferred location for the inclusion of a large rural show-ground and studs sales facility to accommodate both provincial and national events. The development has received considerable positive feedback from local residents and is viewed as highly beneficial to the future growth of Thornhill and its surrounding areas. The proposal is at present also investigating a second development alternative, and is awaiting the approval of the final scoping report in order to begin the EIA process.

#### **EXAMPLES OF AQUACULTURE:**





**EXAMPLES OF AGRI HAMLETS:** 













### RECYCLING OF BUILDINGS

wo of the most decisive issues of our time are the excessive consumption of energy as well as the high levels of CO2 emissions, resulting from the burning of carbon fuels, pollution of air, water and land, depletion of natural resources, and the disposal of waste. According to the Green Building Council of South Africa (GBCSA), an estimated 40-50% of the world's energy is consumed through the construction and ongoing operations of buildings and households. While this percentage can greatly be reduced by the implementation of green building practices and sustainable technologies, one of the most effective ways of reducing a building's environmental footprint, is by re-using it.

The renovation or "recycling" of an entire building, and the majority of its existing materials and structure, can be used to significantly reduce its potential impact on the environment. If this is done in conjunction with various active and passive design measures, it should be safe to say that a building has been designed with the ecology in mind. The adaptive reuse of existing buildings can however present a significant challenge to the architect due to a number of constraints and fixed parameters. Particularly when dealing with larger buildings that need to be manipulated to house specific functions, such as providing a comfortable indoor environment whilst minimising the ecological and environmental impact, these projects can give rise to a number of problems, but also opportunities, that otherwise would not have presented themselves.

Over the past twenty years, CMAI has recycled a number of old buildings for adaptive re-use, including the St. Blaize Terrace Houses in Mossel Bay, as well as several industrial structures which have been redeveloped on Thesen Islands, including the Boatshed, the Parking Shed, the Sawtooth Building, the Old Clinic, the Drymill, the Gantry and the Monorail, as well as the old Powerstation which is currently in its pre-construction phase.

CMAI's various redevelopment projects highlight the successful re-adaptation of programmatic elements within a building's envelope and incorporate various ecological design measures that efficiently optimize the overall carbon footprint.

### st blaize terrace house mosselbay, wc

Constructed in 1906, the St. Blaize Terrace Houses - located on Marsh Street in Mossel Bay - are a picturesque example of turn of the century Victorian rowhouses. In 1986, CMAI undertook the restoration, development and sales of these renowned Victorian rowhouses, which had become dilapidated and rundown over time.

CMAI embarked on the replacement and restoration of all the original timber windows and doors, as well as maintaining the original historical character of the building's sandstone façade. Internally, the residences were renovated to be more spacious + modern, while several of the street fronting units were converted to incorporate a commercial frontage.

### the parking shed \_\_thesen island, wc

In a similar manner, the Parking Shed on Thesen Islands used to be the old peeling plant and its original structure has been retained while two additional floors were inserted on the inside to provide parking space over three levels for more than two hundred cars, reducing the hard surface area needed on the island significantly, which meant that more space could be used for parks and recreation.

All the rainwater from its two thousand square metre roof is harvested and channeled to a freshwater pond on Avocet Island. All the old ventilators were retained and a number of new ones were added to allow for passive ventilation and a series of translucent sheets and double volume areas were allowed for to minimise the need for artificial lighting.

All the builder's rubble was used as backfill and new materials were sourced locally to reduce transport (and cost). Most of the old cladding material was re-used, together with leftover timber from the factory that was used for bumper rails throughout the building. One concern was the extensive use of concrete, but it was found to be the most effective means of economizing on the amount of material needed — to mediate the use of concrete, the slabs were all pre-stressed to reduce their thickness to the bare minimum.

Particularly when comparing the recycling of these old buildings to new more energy-efficient buildings, it is interesting to note that if optimized efficiently, the long-term footprint is equitable.





# CMAI BECOMES AN OFFICIAL MEMBER OF THE **GBCSA**

n May 2008, the newly established Green Building Council of South Africa (GBCSA) was opened for membership and CMAI is proud to be one of its first official member organisations. CMAI has signed a Statement of Member Commitment to actively support and adhere to the GBCSA's vision and mission. These are set out as

# GREEN BUILDING COUNCIL SA

MEMBER ORGANISATION

### VISION

The Green Building Council of South Africa will lead the transformation of the South African property industry to ensure that all buildings are designed, built and operated in an environmentally sustainable way that will allow South Africans to work and live in healthy, efficient and productive environments.

### MISSION

To promote, encourage and facilitate green building in the South African property + construction industry through market-based solutions, by:

- •-Promoting the practice of green building in the commercial property industry.
- o-Facilitating the implementation of greenbuilding practice by acting as a resource centre.
- o-Enabling the objective measurement of green building practices by developing & operating a green building rating system.
- o-Improving the knowledge and skills base of green building in the industry by enabling & offering training and education.
- o-The Green Star SA office pilot tool was launched in July this year and three of our staff members attended the first accreditation course held in Cape Town in November this will enable them to qualify as accredited Green Star practitioners in the new year.

or the owners of S14 boathouse, longtime sailors with a passion for the both the lagoon and ocean, now conveniently located at their fingertips, the captivating charm and appeal of the Saffron Bay site was perfectly suited to their modern lifestyle.

As the third project appointment by the client, coupled with the good relationship and understanding shared with CMAI, some might suggest that the design process would be simplified or even callous. In addition, bathroom shower projections, facing onto the road, were used to liven up the street façade of what is a simple, clean and free-floating façade. While the proposal was somewhat unconventional, requiring some persuasive reasoning to the design review panel before approval was granted,

the client remained dedicated and enthusiastic about the design. Looking at the finished building, it is clearly evident that sailing and the open water [you may struggle to get them off a boat!] were decisive factors in the final detailing and finishing touches of the house, suggestive of a modern day yacht.

The sleek modern kitchen and dining area gently flows into the living room in a manner that simply takes your breath away, while the dark stained timber floors, highlighted with areas of quartz, entice you to take off your shoes and feel the texture with your feet. Walking around this home, you have to remind yourself that this is a house and not a yacht, delicately floating on the water.









The boathouses on Saffron Bay are often described as one of the hidden treasures of Thesen Islands, allowing residents to not only live next the water, but actually on the water.

## BUILDING FRONTAGES + STREET RESPONSES

• "Frontage" refers to how the building enfronts the street, how it responds and meets the street.

 There are appropriate ways in which a building with an intended use should respond to a street or open space.

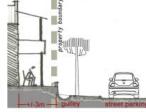
A residential ground floor unit for instance should preferably be raised somewhat from a busy street by means of a stoep or a few stairs.

This allows for a comfortable transition from public to private space.

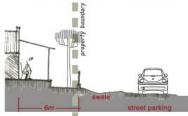
Generally the building is set back further from the street the more rural the environment, while a retail frontage would often have a zero setback from the street boundary.



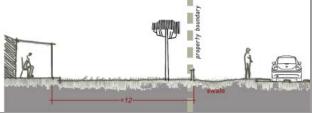












### NEXT PUBLICATION

Rail-Volution

"Building Livable Communities with Transit" Steff & Eugene's update on the congress attended in San Francisco with some insight into Transit Orientated Development (TOD's).



panist design

## house pretorius thesen islands

There is an old premise which proposes that opposites attract, and when it comes to Franz and Annamarie Pretorius, that theory still rings true. Take one part die hard motor racing fanatic and one part "young at heart Karoo-girl" with a deep love for her South African heritage, and you are sure to have a very difficult design brief to follow!

With two strong individual personalities, each offering a different interpretation of the design brief, the decision was taken that responsibility would be equally shared between the couple: Franz, more comfortable with rational contemporary architecture, would be accountable for the shell of their new home, while Annamarie, with a passion for expressing the richness in heritage, would be responsible for the interior décor and detailing. While the amalgamation of old and new design elements can be challenging at times, the final design proposal was that of a contemporary building shell accentuated by a spatial planning that accommodates all the advantages of modern living, whilst still presenting a timeless canvas internally that comes to life with numerous finishes and materials that lay emphasis on Annamarie's roots.

The end result is a seamless union of contemporary and traditional architecture; a statement that different design styles can successfully be integrated. With nearly all the design elements being purpose made for the home, including the light fittings and wrought iron balustrades, the "Hollandse klompies" for the living room fireplace, as well as the purpose made tiles for splash backs for the AGA stove and scullery, it is impossible to focus on an individual element that is not extraordinary. Another great feature of the house is the east facing timber gallery which not only links the two wings on both floors, but allows you to live out onto the pool area at ground floor level. In the bringing together of these various components, an ever active line of communication between CMAI, the clients and the contractor was necessary, with all parties involved at sourcing local products to achieve the Cape Cottage interior Annamarie longed for.

As architects we strive to incorporate our clients' personality and unique requirements in our designs. As such, it is vital that the client is involved in each stage of design, bringing a special quality and "life" to the building. Architecture allows different styles to blend and adapt over time. One could argue that a great deal of extra work and effort was put into this one house. But, to recreate the elements from years gone by requires a substantial amount of time, blood, sweat and occasionally tears. Looking back at this home, it was well worth it.

Seeing the broad smiles on the couples' faces show that this house is now home to the Pretorius family; we wish them all the best for the future in their "cottage" on Quill.







PROJECT: LOCATION:

STATUS:

roject update

**Oyster Walk** 

Pledge Square, Knysna DESCRIPTION: Situated off Main Road Knysna, this mixed-use development will consist of one & two bedroom studio apartments, including a small commercial component. Construction has finally commenced following a lengthy approval processes. We hope that as the project progress it will resolve some of

> the initial uninformed concerns Under construction.

SIZE: 0.53 Ha 63 units PROJECT:

LOCATION:

George Rex Drive, Knysna

**DESCRIPTION:** An affordable and aspirational residential development consisting of multiple apartment units with the aim of filling the gap in the middle income housing market.

**George Rex** 

STATUS:

EIA has been completed and the master plan amended according to recommendations. The proposal is currently awaiting ROD and final approval from provincial authorities

SIZE: 19.5 Ha 214 units

PROJECT: LOCATION:

**Kurland Village** 

The Crags, near Plettenberg Bay **DESCRIPTION:** Premiere Polo Estate with integrated commercial, industrial and residential components catering for a broad range of income groups, including a working macadamia orchard + equestrian

STATUS:

The development is currently awaiting ROD + final approval. A presentation was made to local authorities regarding integration opportunities + development objectives. As part of the Kurland Integration Policy, a development accord was signed between the developers + local residents. This will see the village becoming the primary beneficiary of an accord aimed at urban upliftment, job creation +





These projects are a joint venture between CMAI and private investors





### **CMAI's OFFICE TRANSFORMATION**

After occupying our current office space in Thesen Harbour Town for over four years, we were motivated to focus some of our own creative 10, ideas transforming No. the Boatshed.





aking use of our Interior Architects skill, the reception area was opened up and reoriented, creating a more spacious and formal point of arrival to the CMAI offices. A large window was also installed, encouraging a greater visual connection between the office and ground floor, as well as allowing more natural light into the waiting space. Coupled with thought provoking signage and colourful artwork which adds a touch of inspiration, a coffee counter with WiFi access was constructed to accommodate the needs of our busy clients and consultants while enjoying a cup before an important meeting.

The counter is expressed in the elevation of the Boatshed as a framed box pop-out, delicately projecting from the façade whilst simultaneously providing some protection from the elements for the ground floor below. To accommodate the growing number of professionals and consultants involved in CMAI's various international and local development and land planning projects, the boardrooms were extended with an allowance made for future video conferencing facilities. An outside deck was also constructed on the Eastern side of the boardroom to enjoy the lovely weather during the occasional break.

A staff meeting and design space was also constructed on the Southern end of the office. Suspended off the main studio space into the existing Coral Tree, the structure, referred to as the Tree House, is clad internally with natural timber and provides an exciting space for staff to meet, discuss, read and socialise in a calm and inspirational environment.





### the dry mill AWARDS

The Dry Mill Marina Apartments is continuing to secure awards:

Early 2007 – Recycling and Sustainable Projects Award from the South African Institute of Steel Construction.

Mid 2007 - Best Redevelopment in South Africa (5 Star) from CNBC International Property Awards.

End 2007 – Best Redevelopment in the World Finalist from CNBC International Property Awards.

End 2007 – Bronze Timber Frame Award from Timber Frame Builders Association.

Afrikaans: Kersgroete | Tshivenda: Ni vhe na nwaha wavhudi | North Sotho: Ditumedišo tša | Sehla sa Maikhutšo I Sesotho: Ditakaletso tse Molemo I Setswana: Ditumediso tsa setlha | Tsonga: Mikateko ya Masiku yo Wisa | Zulu: Izilokotho Ezinhle Zamaholide | Xhosa: Imibuliso Yelixesha Lonyaka | Ndebele: Izilokotho Ezihle Zamaholdeni | Swati: Tilokotfo letinhle kulesikhatsi semnyaka |

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