

A landscape architect with remarkable vision has helped turn a polluted timber-processing yard into an ecologically-sound property development while improving biodiversity significantly.

Photographs courtesy of D&B

Positive property development

Thesen Islands proves that property development in an ecologically-sensitive setting can be done responsibly.



project TEAM

Client: Thesen Islands Development Company
 Landscape architect, architect and urban designer: CMAA
 Environmental consultant: Pieter Badenhorst Professional Services
 Engineers: Arcus Gibb and Niewoudt Hofmeyer/LSM
 Specialist hydrology consultant: CSIR
 Quantity surveyor: Steele Consulting
 Landscape contractor: Golf Landscapes

What is known as the ecologically-sensitive, developed Thesen Islands in the Knysna River Estuary today was once a polluting timber-processing plant. Owned by the Thesen family for more than 80 years, the site was sold to Barloworld in 1974 and expanded. However, in 1992, Dr Chris Mulder proposed a complete redevelopment of the island; taking cognisance of concern for the environmental impacts and noise pollution associated with the timber plant.

Implementing Mulder's vision for Thesen Islands was not an easy task. The initial planning phase took a multi-disciplinary team four years. Because of complexities relating to rezoning and the ecological sensitivity of the estuary, another four years passed before the project was approved by the authorities. In fact, approval was granted on 100 strict conditions.

EXCELLENCE IN DESIGN
COMPLETED PROJECTS

Thesen Islands
By CMAI

PRESIDENTS
AWARD RECIPIENT



This project involved the transformation of an island from an industrial timber-treatment plant into a residential and commercial development of the highest standard. The interaction of various disciplines addressed toxic mud, sea-horse habitat and salt-marsh function, and developed a system of gabion retaining walls that are resistant to corrosion. The analysis, research and planning has resulted in an urban environment that is stable, safe and a very attractive place to live in and raise children. The arrangement and integration of land use has been guided by the available natural salt-marsh areas and the linkage of community open space. The detailing of the roads and pathways, bridges, street furniture and planting is of a high standard, and has created a strong sense of unity and consistency in the space between buildings. It is encouraging to see what can be done by a dedicated professional design and construction team!

panel's
CITATION

Liveable neighbourhood

The design concept is based on the notion of "new urbanism"; aiming to create a liveable neighbourhood or village that reduces dependence on cars and provides public amenities or spaces to promote community interactivity. In order to ensure that a diverse community is created, the layout includes varied stand sizes, which appeal to a spectrum of buyers (from retirees to young families and single professionals).

The best attribute of Thesen Islands, though, is its cohesive system of open spaces. A network of tree-lined, pedestrian-friendly streets link amenities such as the commercial centre with the mooring facilities and sports fields.

Many site-specific factors helped shaped the design:

- Salt marsh areas were avoided during construction and, where unavoidable, the marshes were lifted and then taken care of temporarily in a nursery before they were transplanted.
- The 90 ha island was divided into 19 smaller islands and the earth cut from the canals was used to raise the level of the land for protection against floods.
- Significant factory buildings were retained and adapted to form the structure of the harbour town and to provide anchors for public spaces as well as an element of maritime heritage.
- Most of the existing seawall was retained to become an "eco walk".
- Contaminated land was rehabilitated. As much as 300 m³ of soil was removed to a toxic waste-disposal site and 1 ha of ground, contaminated to a depth of 3 m, was capped with a layer of sodium bentonite and covered with 2 m of topsoil as well as a layer of tarmac to accommodate a parking area and tennis courts.



A polluted timber processing plant has been transformed into a sustainable community, set in a wetland habitat.



Photographs courtesy of CMAI



The concept of "new urbanism" focuses on the creation of a liveable neighbourhood with public amenities or spaces to promote community interactivity.

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- Construction and demolition waste was recycled and reused: 60 000 m³ of timber offcuts and sawdust was fine-milled, injected with nitrogen and bacteria, and turned into compost.
- After many alternatives were tested, gabions were chosen as the most cost-effective and environmentally-appropriate solution for the protection of canal embankments.
- Labour-intensive construction methods were employed as far as possible.
- The stormwater system was carefully-planned as no run-off was allowed to flow into the lagoon. All run-off was, therefore, directed into swales from where it is allowed to infiltrate the ground.

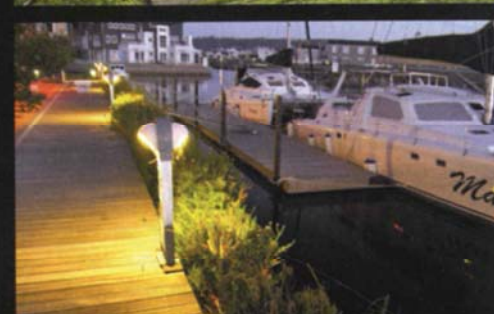
The result of this visionary property-development initiative is that the biodiversity of the island has been significantly enhanced. In fact, 22 ha of new aquatic habitat has been added to the lagoon. The canal embankments provide habitat for marine organisms, including the Knysna sea horse while the 13 ha of parkland is home to thriving birdlife – enjoying the naturalistic planting and man-made nesting boxes in the wetland area.

However Thesen Island is not only accommodating the natural environment; a major asset is the community open-space system. This includes parkland, a nursery, chipping green, tennis and squash courts, clubhouse, maze, playground, orchard, communal vegetable patch and a communal beach with an ablution block that form the hub of the community open-space system within Thesen Islands. ■

the original thought factory

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chris mulder associates incorporated
po box 2498 knysna 6570 tel: 044 382 6732



'New ruralism' mooted for Eastern Cape

On the Crossways and Sunnyvale farms, a residential estate will be integrated with agricultural development in a showcase of sustainability.



Images courtesy of CMAI



A "new ruralism" development is envisioned for the Crossways and Sunnyvale farms near Port Elizabeth. *Urban Green File* can disclose that a R3,4-billion development bordering the Van Stadens Wild Flower Reserve is being planned and designed by Dr Chris Mulder of CMAI.

According to Mulder, the proposed development will create a new, vibrant and sustainable rural node comprising interspersed intensive fruit, vegetable and dairy farming, as well as housing. "The proposed project fits in perfectly with government's stated

objective of rural development. It should not only help stem the flow of people from the country to the nearby towns and cities but might also entice, especially, young families to come and share in a rural lifestyle in an idyllic location. The concept of upmarket golf estates belongs to the past. The priorities for the future are water and food. Instead of surrendering valuable agricultural land to residential development, the planned farming activities on Crossways and Sunnyvale will double agricultural output."