

WINNER: RECYCLING, SUSTAINABLE THESEN ISLAND REDEVELOPMENT

Steel has this remarkable attribute that developers should always take into account. That is with some clever thinking, some remarkable attention to detail, almost any steel structure can be recycled and converted and upgraded into a totally new life.



A BRIEF HISTORY OF THESEN ISLAND AS A TIMBER-PROCESSING BASE

Arnt Leonard Thesen and his family left Stanger in Norway in 1868 in search of a new home. In 1870, they settled in Knysna and soon became an integral part of the burgeoning village, setting up the first trading store and counting house. They also dealt in timber, and in 1904, Charles Wilhelm Thesen bought Paarden Island which had been part of the Melkhoutkraal Estate of George Rex – the founder of Knysna. The Thesens began processing timber on the island in 1922 and the island soon became known as Thesen Island.

The industrial development continued and as recently as the late 1960's new steel framed industrial buildings were added to the factory. The industrial structures consisted of various processing and storage buildings including amongst others:

- The dry mill buildings, which were classic steel framed with latticed crane columns and roof trusses.
- Open crawl beam structures constructed out of goal post type portal frames to support a centre under-slung crawl beam system.
- An open crane gantry with enormous plate girders supported on latticed crane columns.
- A classic style portal frame building to store timber with a mansard style roof for natural light.

About 10 years ago a decision was taken to redevelop the island into an upmarket residential development. Canals would be added for the boating fraternity. The manner in which the steel framed buildings have been re-cycled is what caught the Steel Awards 2006 judging team's proverbial eyes.

THE DRY MILL 2005 STYLE

With superb attention to detail the architectural team saw an opportunity to retain much of the main structure of the three dry mill sheds and to convert them into two sets of two or three storey apartment complexes. The one side set looks out towards the famous Knysna Heads, one of those magnificent views that words cannot describe, the other set facing one of the new canals. Each set would be

supported on and make use of the old latticed columns to create features in the various rooms of the apartments. This is dramatised by means of up-lighters placed in the floor in the middle of the column structures. By retaining the outer portion of the roof trusses and purlins, no new roof support would be necessary for these apartments. The middle of the roof truss has been retained to act almost as a trellis link between the two blocks covering the driveway between.

By means of well and sympathetically detailed add on features such as lift shafts, covered patios, tensile structure supports and the like using steel framing once again, show just how to use steel to add decorations in a functional way to any type of complex.

Great stuff guys!

THE OPEN CRAWL BEAM 2005 STYLE

Part and parcel of the development is the system of waterways created for the new tenants to reach their apartments by water (in addition to road). To create foot access in some positions bridges are required over the newly dug canals.

The old goal post portals and crawl beam are used to hang new delicately designed and detailed arched bridges in a unique manner.

THE OPEN GANTRY 2005 STYLE

More new apartments – this time the new canal runs down the middle of what used to be the open gantry storage area. The new apartments once again use the old crane columns and girders as the primary supports.

THE PORTAL BUILDING 2005 STYLE

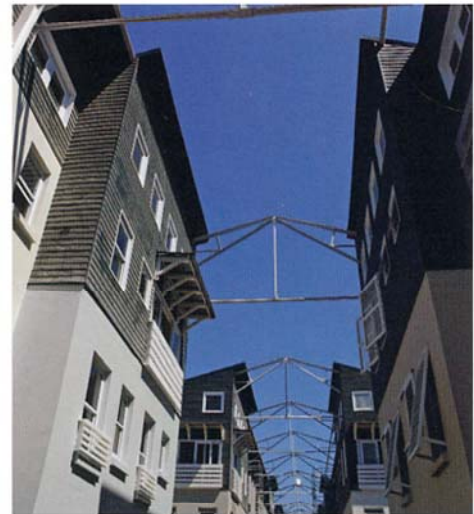
High-density apartments, new homes on smallish stands, shopping developments, and office developments all mean that there will be a demand for parking. The simple portal shed has been converted by means of the judicious addition of new concrete floors supported on some new concrete columns but also supported on the old steel columns to create a parking complex of three floors in height.

The upper floor has found use for exhibitions and during the annual "Oyster Festival" that is making Knysna even more famous. The addition of new cladding, brick features, steel staircases complete this conversion that would leave the visitor guessing just what is inside this remarkable redevelopment.

THE JUDGES COMMENTED:

Steel has this remarkable attribute that developers should always take into account. That is with some clever thinking, some remarkable attention to detail, almost any steel structure can be recycled and converted and upgraded into a totally new life.

This is a great example where excellent re-use of old structures, adorned with regular building materials and some new structures has shown just how



to take advantage of this attribute – a win-win situation and excellent use of steel richly deserving recognition in this the 25th Steel Awards competition.

Really well done guys!

project team

Developer:

Thesen Islands Development Co.

Architect:

Chris Mulder Associates Architecture

Structural Engineers:

LSM Structures Et Civils and Niewoudt & Hofmeyr

Quantity Surveyor:

Steele Consulting

Project Managers:

CMAI Architecture and Intergrated Projects

Main Contractors:

Shamwari Projects, Prokon Services and J. C. Joubert Building Contractors

Steelwork Contractors:

Van Brakel Engineering and Prokon Services

Steel Restoration, Painting & Cladding:

T. I. Paint and Lomot