

# VivoCity NATURE MEETS ARCHITECTURE IN A MALL

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Images by Mapletree Commercial Property Management Pte Ltd



## PROJECT CREDITS

**Location:** 1 HarbourFront Walk **Completion Date:** 2006 **Developer:** Mapletree Investments Pte Ltd **Design Architect / Interior Works:** Toyo Ito & Associates **Project Architect:** DP Architects Pte Ltd **Landscape Architect:** Sitetectonix Pte Ltd **Lighting Designer:** L'Observatoire International, Inc. **Mechanical & Electrical (Engineer):** Parsons Brinkerhoff Consultants Pte Ltd **Civil & Structural (Engineer):** Meinhardt (Singapore) Pte Ltd **Quantity Surveyor:** Langdon & Seah Singapore Pte Ltd **Main Contractor:** Penta-Ocean Construction Co. Ltd **GFA:** 1.39 million m<sup>2</sup> **Site area:** 84,133 m<sup>2</sup>



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From the point of its conception, the vision for VivoCity has been to create an iconic, one-stop destination with a strong human focus. The guiding principle for VivoCity is to constantly enthral its visitors. Beyond being just a mall, the design and construction of VivoCity sought to realise an inspirational lifestyle experience, which will enable people to enjoy spending time both indoors and outdoors, be it for shopping or other activities.

It was an unwavering belief in creating spaces that connect with people that drove the design, layout, tenant mix, and even the art in the mall. In VivoCity, the word "architecture" is employed in the broadest sense to encompass the conceptualisation, planning, building, and day-to-day management of the mall. The "architecting" of VivoCity synergises design sensibilities, building innovation, and commercial viability.

VivoCity is one of the few malls that has successfully incorporated nature into its functional programme. There, nature is more than an icon; it exists in symbiotic harmony with the man-made environment. Roof gardens, such as the Sky Park on Level Three of VivoCity, improve the energy consumption of the buildings, while greenery enhances the attractiveness of concrete and steel.

#### The Search for Form and Function

Japanese architect Toyo Ito, a leading exponent of conceptual architecture, was the unanimous choice of the developers to bring VivoCity to fruition. He worked in collaboration with Singapore-based architectural firm DP Architects. Leveraging on VivoCity's proximity to the sea, Ito draws on the analogy of "surfing" to bring organic forms back into the man-made environment.

In line with the brief, Ito wanted to demonstrate with VivoCity the "possibility of re-examining the relationship between nature and architecture". Consequently, his design incorporated water in the rooftop garden level at VivoCity, allowing for the simultaneous experience of water and visual assimilation with the sea. The water in the Sky Park provides a visual link to Keppel Bay, which

lends itself as "borrowed scenery". The wading pools were designed with the beach sloping into the water, their shallow depths ideal for people to wade and cool themselves on a hot day.

Like lolling waves, the building's southern façade ebbs and flows along the 300-metre long promenade, enabling food and beverage outlets lined up along this end to capitalise on the views of Sentosa. The sea is brought further inland through the wave-like roofscape, which morphs into curvaceous walls along Telok Blangah Road northwards.

The ripples of the sea are carried into the building's interior through the wide expanse of sweeping curved corridors, giving visitors a panoramic view of the shops ahead and across levels. The integration of skylights allows natural sunlight to penetrate interior spaces, while their clever placement above the escalators subtly beckons shoppers to explore the upper levels. Giant spirals of seaweed-like wall structures interweave with the skylights, emerging from the lower levels and rising dramatically through the vertical voids to morph into the ribbon ceiling leading east and west. Specially painted by a craftsman, these ribbons fade from green to white as they extend out to the roof deck.

These devices, along with the unique furniture on each floor, double as wayfinding markers in the massive mall. Unlike a conventional mall with shops arranged in straight rows, the shops in VivoCity flow with the curves of the corridors. New shops emerge as one moves along, presenting an interesting play of spaces between the theatrical and the intimate, and the invigorating and the tranquil. The high level of visual and physical connectivity is intended to make shopping in VivoCity a fluid and seamless experience.

#### Beach Landscapes Integrate with Urban Design

The landscaping in VivoCity celebrates the surfing theme by reinterpreting elements found in marine ecosystems. For example, sand dunes and vegetation dunes found on the beach are expressed in a stylised manner at The Plaza and the Sky Park.



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The dunes on The Plaza curve and undulate to provide an ever-changing perspective while shoppers walk through the space. On the Sky Park, more vegetated grass mounds provide attractive picnic grounds. VivoCity boasts of plant species, such as the Phoenix Palm, Tembusu, and Dalbergia on Level One, and the Coconut Palm, Dalbergia, Erythrina, Calathea, and Zoysia on Level Three.

The quintessential beach plant, Coconut Palm, was chosen as the main planting species, while the Dalbergia was chosen for the shade it provides. Colourful plants, such as Cannas and Ixoras, were chosen for their attractive flowers, while Calathea was chosen for its lush foliage. Finally, creeping flowering plant Wedelia and creeping grass Zoysia were chosen for their ability to hold the ground to control erosion, in order to achieve both steep and gentle mounded “dune” forms.

The planter and deck combinations were detailed with the view that a large drainage area was needed under the timber deck to mitigate waterlogging during heavy rainfall. The soil was profiled to slope towards the timber decks to improve surface drainage. The palms were chosen and their mounting detailed to address the low soil depth and high wind loads expected at the rooftop. Light foliage plants were chosen to reduce the possibility of the trees toppling over. Plants with higher tolerance to salt sprays were also selected due to the building’s proximity to the sea.

The use of Zoysia was critical, given the limitations in soil depths in many of the planting areas, due to the visual height control lines imposed by Urban Redevelopment Authority. Some raised planters were created to overcome these limitations, creating benches in the process. A series of steel beams laid in grids and anchors to the roots were also provided under trees and palms to spread their bases and link them where possible. These steel cables were kept in place for over a year to ensure that the trees would be stable before they were removed.


#### Creating a Space that Connects with People

The management of VivoCity wanted its design to create a desire to experience the building. Instead of an empty shell absorbed in its architectural brilliance, the mall had to be unique—an icon that will offer multi-faceted lifestyle experiences that can attract people from all over Singapore to spend a longer period of their leisure time within it, not just for shopping but also to enjoy the space.

Public spaces in VivoCity are characterised by seven outdoor artworks specially commissioned for the inaugural Singapore Biennale in 2006, in an attempt to bring the arts to the masses as part of a holistic lifestyle experience. The collection was the only international art collection commissioned for permanent display.

Taking a stroll at the Sky Park, the colourful toy characters of *Vivo Punch* greet visitors with exuberant smiles and playful punches into the air. On the other side of the rooftop, visitors can observe the acrobatic swings of *There*—a sculpture of a man swinging from a horizontal bar at more than six metres above the ground.

While the art installations and architecture pursued by Ito are full of vitality and energy, they also make room for quiet contemplation. This is most evident at the Sky Park. On a typical Saturday afternoon, the Sky Park is bustling with activity as children of all ages wade around the large pools, getting wet and wild, untroubled by the unrelenting heat. Parents and grandparents lounge about casually on the soft grass mounds.

VivoCity has embraced its own architecture to truly embody all that is present, capture split-second euphoria, and frame it in moments of joy. Redefining the concept of shopping, it is a living example of the amalgamation of art, design, and life. In this mall where the waves roll, there will always be a place for everyone. 



1. The architects drew on the analogy of “surfing” to bring organic forms back into the man-made environment.
- 2, 3. On the Sky Park, shallow wading pools invite children to play and cool themselves.
4. The ripples of the sea are carried into the building’s interiors.
5. Outdoor art commissions on the Sky Park offer both vitality and room for quiet contemplation.
6. The playful characters of art installation *Vivo Punch* on the Sky Park.
7. Art installation *There* on the Sky Park.