

Project

Infinitus Plaza

Location

Guangzhou, China

Date

2016/2021

Client

LKK Health Products Group (LKKHPG)

Status

Built

Size

185,643 m²



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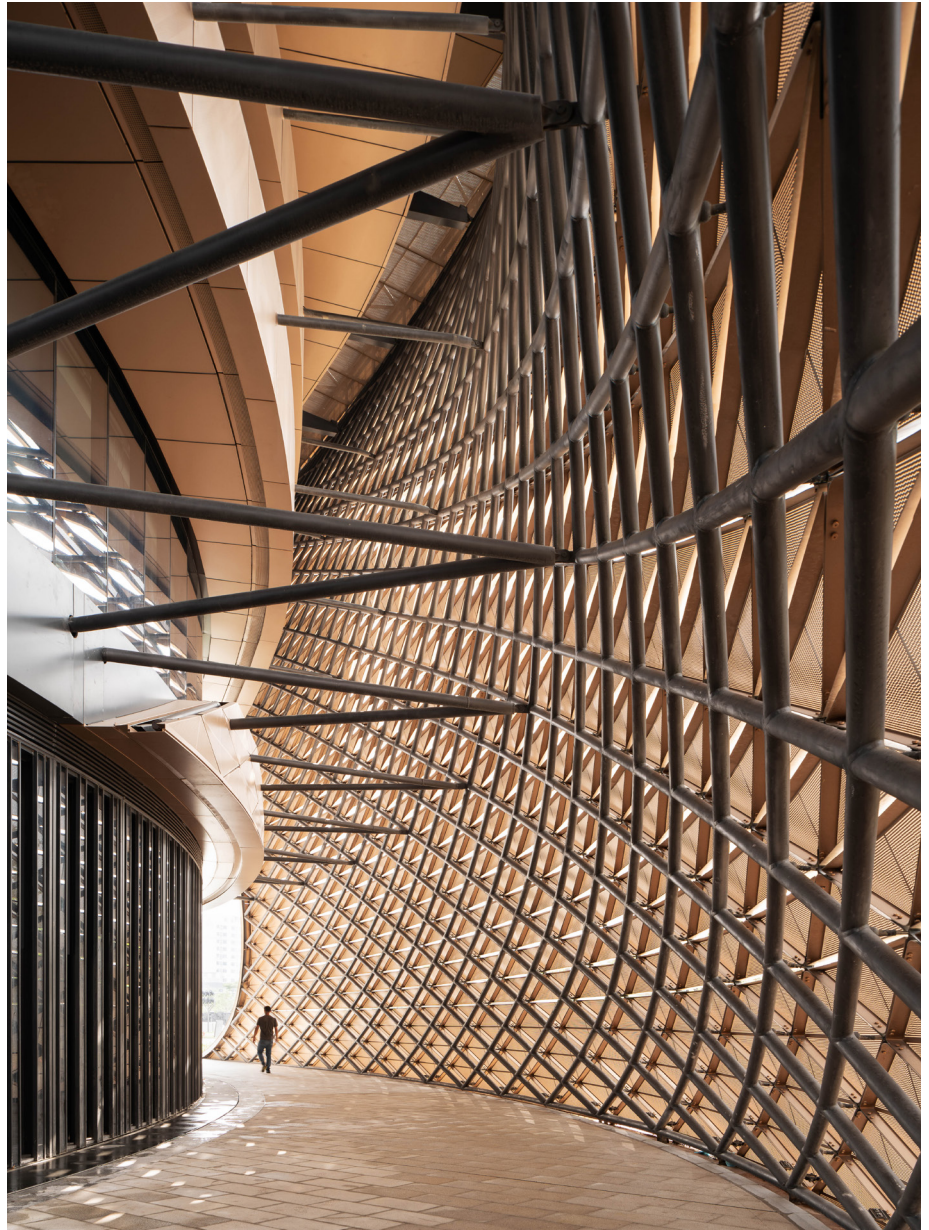
Infinitus Plaza is the new global headquarters of Infinitus China. Incorporating work environments designed to nurture connectivity, creativity and entrepreneurship, the new headquarters also includes the group's herbal medicine research facilities and safety assessment labs as well as a learning centre for conferences and exhibitions.

The 185,643 sq. m Infinitus Plaza defines a gateway to the new Baiyun Central Business District. Built on the site of the decommissioned Baiyun Airport, the new district links Guangzhou's city centre with Feixiang Gongyuan Park and the new communities within the former airport's redevelopment. Located adjacent to Feixiang Park station on Line 2 of the Guangzhou Metro, Infinitus Plaza straddles the metro's sub-surface tunnel, dividing the headquarters into two buildings that interconnect at multiple levels.

Establishing collaborative work spaces that are healthier and more adaptive to new ways of working, Infinitus Plaza is designed over eight storeys as a series of infinite rings that enhance interaction and communication between all departments.

Arranged around central atria and courtyards, echoing the symbol for infinity "∞", the design creates a variety of shared indoor and outdoor spaces that build the strong sense of community (Si Li Ji Ren) which defines Infinitus' corporate culture.

The interconnecting bridges house a variety of flexible communal spaces for employees that promote individual



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Architect

Zaha Hadid
Architects (ZHA)

Design

Patrik Schumacher

ZHA Project Director

Satoshi Ohashi

ZHA Project Associates

Yang Jingwen, Juan Liu, Martin Pflieger

ZHA Project Architect

Kai-Jui Tsao

ZHA Project Leads

Xuexin Duan, Nan Jiang

ZHA Project Team

Congyue Wang, Eugene Leung, Feifei Fan, Lida Zhang, Lily Liu, Qi Cao, Shu Hashimoto, Xiaoyu Zhang, Ying Xia, Zhe Xing

ZHA Competition Project Directors

Satoshi Ohashi, Paulo Flores

ZHA Competition Associates

Yang Jingwen, Dennis Brezina, Damiano Rizzini

ZHA Competition Team

Anat Stern, Chaoxiong Huang, Harry Spraiter, Julian Lin, Lida Zhang, Marius Cernica, Ovidiu Mihutescu, Shu Hashimoto, Tommaso Casucci, Xuexin Duan

Consultants**Local Design Institute**

GDAD

Structure

RBS

Façade

BuroHappold
Engineering

Lighting

LIGHTDESIGN,
LUMIA, Holy Power

Landscape LDI

Pubang

Signage LDI

Basalt

Project Manager

ARCADIS, BCCI

General Contractor

Guangdong No.1
Construction
Engineering

Façade Contractor

Jangho

MEP Contractor

Shijian

Landscape Contractor

Shenzhen Landscape

Signage Contractor

ATG BEYOND

Size**Site Area**

45,280m²

Gross Floor Area

185,643m²

Above Ground

118,200m²

Below Ground

67,443m²

Height

35m

Top of occupied floor

30.9m, 8 floors

Floors Above Ground

8

Floors Below Ground

2

Retail

18,000m²

Vehicle Parking

1026

Bicycle Parking

800 (42,800m²)

Electrical Bike Parking

302 (2100m²)

Interior Design Area

59,368 m²

and overall wellness including gym and exercise rooms, recreation and relaxation zones as well as restaurant and cafe. The bridges also connect the plaza's offices with further shopping and dining areas.

Situated within Guangzhou's humid subtropical monsoon climate, Infinitus Plaza has been designed and constructed to LEED Gold certification and the equivalent 3-Stars of China's Green Building Program with its life cycle carbon emissions calculated at 15.3% embodied carbon and at 84.7% operational carbon emissions.

Optimization of the structure has reduced the amount of concrete required and increased the proportion of recyclable content. 25,088.33 tonnes of recycled materials have been used in the construction of Infinitus Plaza, primarily: steel, copper, glass, aluminium alloy profiles, gypsum products and wood.

Annual solar irradiation analysis has determined the width of the outdoor terraces to self-shade the building. This analysis has also defined the external perforated aluminium shading panels to optimise reductions in solar heat gain. These measures, together with double-insulated low-E glazing provide effective shading and heat insulation that ensures good natural light throughout the building while reducing solar heat gain and energy consumption.

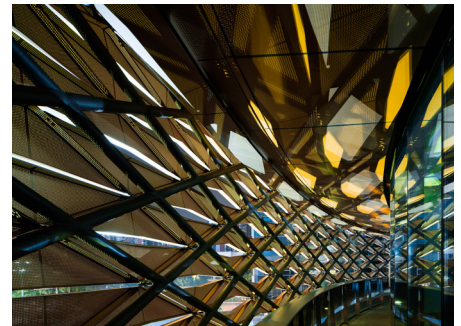
Operated by the building's smart management system and powered by photovoltaics, a network of sprinklers spray atomised particles of collected rainwater onto the ETFE membrane roof above each atrium to dissipate heat by evaporative cooling. This translucent, double-layered ETFE membrane roof incorporates a 60cm cavity of compressed air.

Activated when the membrane's exterior surface is heated to 35°C by solar radiation, spraying for 3-4 minutes every half an hour will cool its surface temperature by 14°C, effectively lowering interior temperatures by 5°C. Rooftop solar water heating further reduces energy requirements.

The project's system of rainwater collection, filtration and reuse also supplies micro-irrigation to the surrounding landscaping. The gardens on the roof of the 3rd, 7th and 8th floors grow herbs and plants native to the region and are naturally irrigated. These outdoor communal areas are linked together with the rooftop jogging track and walking paths. Green roofs comprise 49.36% of the project's total roof area.

Equipped to monitor temperature, carbon dioxide, PM2.5 particulates and other pollutants, the building's smart management system with fresh air linkage ensures indoor air quality, detecting the level of occupancy and automatically adjusting for optimal comfort with minimal energy consumption while also learning to accurately predict daily occupancy trends for increased efficiencies.

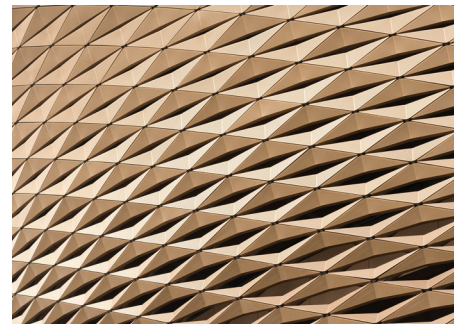
Anchoring Guangzhou's new Baiyun Central Business District as a national centre for China's health and wellness industries, Infinitus China's new headquarters combines innovative design and construction technologies with proven sustainability strategies to create new work environments that unite all departments and enhance communication throughout the group.



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