



# 深圳“京基100”设计

## ——访TFP Farrells设计总监Stefan Krummeck

**KINGKEY 100 Design: An interview with Stefan Krummeck, Principal Director of TFP Farrells**

**采访/撰文** 朱晓琳 《建筑技艺》(AT) 副主编

**采访人物** Stefan Krummeck, TFP Farrells事务所设计总监

**照片提供** © Carsten Schael Photography, TFP Farrells事务所

Stefan Krummeck, TFP Farrells设计总监, 是一位国际性的建筑师和城市规划设计师, 负责设计、指导和协调TFP Farrells事务所在香港办事处的重点项目。凭借20多年来在欧洲和亚太地区的项目经验, Stefan对于综合开发的商业和超高层项目的设计、规划和一体化的全过程有着非常深入的理解。他在亚洲设计了众多的与商业有关的项目, 包括一系列获奖项目: 深圳京基100 (中国排名第8的高楼, 441.8m, 2011年), 上海东亚银行金融大厦 (180m, 2009年), 柬埔寨安达大都汇 (柬埔寨第1高楼, 184m, 在建)。

Stefan Krummeck, Principal Director, TFP Farrells

Stefan Krummeck, an international architect and urban designer, is responsible for directing the design and coordination of key projects in the Hong Kong office. With over 20 years experience in Europe and throughout Asia Pacific, Stefan has an in-depth knowledge of the design, planning and integration of large complex, commercial and high-rise projects through all stages of procurement. He has led the architectural design on a multitude of commercial related projects in Asia including a number of award-winning projects and developments: including Kingkey 100, in Shenzhen (the 8th Tallest building in China, 441.8m: to be completion 2011); BEA Financial Tower, Shanghai (180m; completion 2009) and Vattanac Capital, Cambodia –1st high-rise in Cambodia (184m; under construction).



从公园远眺京基100 © Carsten Schael Photography



总平面

**AT:** TFP Farrells通过国际设计竞赛赢得了“京基100”，您认为能够取得成功的原因是什么？

**Stefan Krummeck:** 正如业主要求的那样，他们希望“京基100”在成为深圳地标的同时，也是一座体现创新和高效的建筑。TFP Farrells用实际行动证明并展现了一个适当可行的创新设计。实质上，我们之所以能够取得成功是因为我们为大楼将来转变成城市的催化剂\激发城市活力和提升城市形象的整体发展提出了一个综合性的集成设计方案。业主认为我们的设计能够良好反映出建筑本身和城市的标志与象征。

**AT:** TFP Farrells was commissioned to design the 441.8-meter tower after winning an international design competition. So can you talk about the reasons behind this big success?

**Stefan Krummeck:** TFP Farrells demonstrated and showed an innovative appropriate design solution to the client which embodied a creative and efficient solution for meeting the objective of the project by creating an iconic landmark in Shenzhen. We won because we suggested a comprehensive integrated approach for the whole development turning it into an urban catalyst for growth, urban vitality and reassurance of city's image. The client felt our design to be the appropriate symbol for the building and the city.

**AT:** “京基100”是综合用途开发项目总体规划的一部分，那么京基中心在整个规划中的定位是什么？与其他建筑之间在功能上有着怎样的联系？

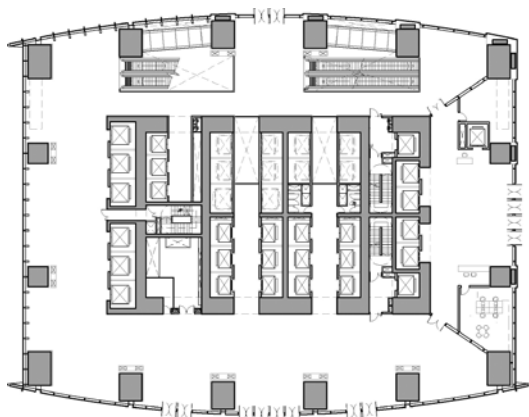
**Stefan Krummeck:** 这幢达100层的超高层建筑包括了21万m<sup>2</sup>的地上建筑面积，是一个总面积为41.7万m<sup>2</sup>的综合用途开发项目总体规划的一部分。该项目包括5幢住宅楼和2幢商业建筑。大厦楼层被划分为三种主要功能：4~72层为17.3万m<sup>2</sup>的甲级写字楼。从75~100层的顶部楼层，将由面积为35 000m<sup>2</sup>的六星级豪华酒店所占据。

将这些元素联系起来的是建筑的裙房部分，这是一个世界级的商业零售空间，具有地方特色、令人兴奋和刺激经济持续增长的购物环境。深圳最著名的商业零售地将为注重生活品质的项目元素提供租用空间，以吸引大量的消费者和游客。设计对人行流线的组织进行了策略性规划，同时允许人们在基地的每一侧都能进入零售区域，入口的设计迎合了每一侧的尺度、规模、密度和行人的步行交通。裙房屋顶上是住宅庭园，反映出场地公共空间的不同空间和功能需求，同时为大众创造了一个和谐的休憩游乐区域。

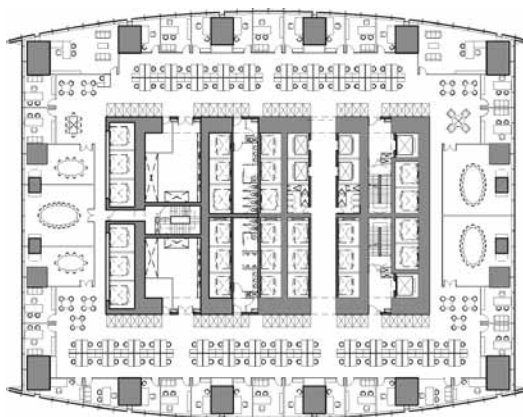
商业零售区域是与地铁系统结合在一起的，而其与办公空间、酒店的连接也为人们的穿行提供了便捷条件。住宅楼群在较高的楼层上进行了连接，以方便邻里之间的互通。塔楼就像是一座“微型城市”服务于整个规划，为社区提供丰富的生活福利设施，实现24小时的城市生活以及人与环境之间的更好互动。

**AT:** “KINGKEY 100” is part of a mixed-use project master plan, so how to identify “KINGKEY 100” in this master plan? How does it connect with other buildings functionally?

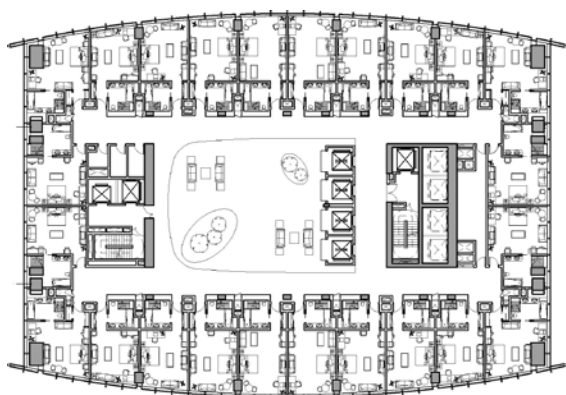
**Stefan Krummeck:** The Kingkey 100 is a 100-storey tower comprising over 210,000m<sup>2</sup> of accommodation is part of the master plan design for a 417,000m<sup>2</sup> mixed-use development. The development includes 5 residential buildings and 2 commercial buildings. The floors of the tower are divided into three major functions. The floors from level 4 to 72 will house 173,000m<sup>2</sup> of Grade-A office space while the uppermost levels from 75 to 100 will be occupied by a 35,000m<sup>2</sup> 6-star Luxury Hotel.



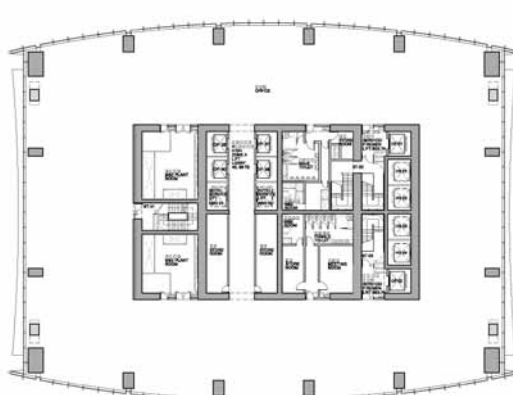
一层平面



办公区平面



酒店平面



标准层平面

Linking all these elements is the podium that is driven by a world-class retail environment designed for local flavor, excitement, and economic growth and continuity. Shenzhen's most prominent retail address will offer leased space to lifestyle-focused anchors drawing visitors and consumers as a destination. The design strategically routes pedestrian traffic while provides retail access from every side of the site, with entries catered to each side's scale, density and foot traffic. On the roof of the podium is a residential garden with landscaping that reflects the different spatial and functional requirements of the open spaces for the site whilst creating a harmonized living and play area for the public.

Retail is integrated with the Metro system while direct office and hotel connections are also provided for easier movement of people. The residential blocks are also linked at the higher levels to create easier neighborhood accessibility. The Tower serves as a "Mini-city" which contributes and provides an amenity-rich focal point back to the community, offering a 24-hour city-life to be better for the environment and human interaction.

**AT：超高层建筑特别象“京基100”的高度已经达到了400m以上，是一种技术高度集成的建筑类型，“京基100”采用了哪些先进技术？**

**Stefan Krummeck：**与传统正常的超高层建筑相比，“京基100”具有三重结构体系，它们由内含型钢的钢筋混凝土核心筒、巨型钢斜支撑框架及构成核心筒和巨型钢管混凝土柱之间互相作用的伸臂桁架以腰桁架组成。办公区部分采用了混凝土核心筒和管柱，酒店部分采用分开的两个核心筒和中空中庭。在建筑的顶层，颇具特点的顶部采用空间框架结构围绕特色餐厅。与一般屋顶设置机电设备不同的是，“京基100”的屋顶由光洁的弧形玻璃幕墙和钢结构组成。

处于地震带区的建筑，其结构往往非常巨大，并且只有短跨式的结构才可行。“京基100”采用先进的结构工程系统，可以承受高达里氏7级的地震。风荷载是整个结构设计中至关重要的一环，我们解决风荷载的方法是在两个狭窄的立面上应用了十字交叉斜撑和伸臂桁架。

垂直交通的组织对于管理者和公共使用者来说都是非常便捷的：1）办公区部分的电梯是非常简单直接的，只有一个双楼层的转换大厅，这个大厅作为公共空间的所在区域也被分成了两层，包含图书室、咖啡厅和观赏区；2）酒店部分的穿梭电梯可以运载着客人直接从地面层上升至98层以办理入住手续，酒店大堂带给客人非同一般的感受，同时有4部酒店专用电梯可以运载客人下达至客房楼层；3）一旦发生火灾，穿梭电梯亦可协助整座大楼的疏散。





建筑与外部环境设计草图

AT: High-rise buildings including “KINGKEY 100” peak at 400 meters and beyond, and they are the results of intensified technology applications, so can you talk about some of the modern technologies applied in this project?

Stefan Krummeck: Compared to normal high-rise buildings, Kingkey 100 has three components in the structural system. The office area uses concrete core and parameter columns while hotel uses central void & spilt cores. On the top floor, the feature top uses parameter space frame with the feature object. Instead of putting M&E equipment on top of the building, the roof is constituted by a curved smooth glazed curtain wall and steel structure.

In seismic zones, often the structure becomes very large and only short structured spans are feasible. Kingkey 100 building employs an advanced structural engineering system which fortifies it against earthquakes of up to 7 on the Richter scale. Wind load plays the most important role for the structural design. Solutions we came up with to challenge the wind load is to use cross bracing on the two narrows elevations and outriggers.

The vertical circulations are user-friendly for both operations as well for public use: (1) Lifts for the office are kept very direct and simple with only one double height transfer lobby. This lobby again doubles up as a public space with opportunities for library, cafes, and viewing areas. (2) The hotel shuttle lifts brings the guests directly from ground-floor up to the 98th floor for check-in. Hotel lobby gives a unique experience and four numbers of local hotel lifts bring visitors down to their rooms located below. (3) in case of fire, shuttle lifts will be used to assist total building evacuation.

AT: “京基100” 采用了哪些节能设计策略？

**Stefan Krummeck:** 从环境角度来说，项目面临的有利条件是主要解决东西向立面的传热问题。片型垂直外遮阳板有助于减少眩光和形成阴影，同时它们对于安装和固定维修系统也是非常重要的。主要的绿色设计策略包括基于环境友好型的建筑形体和幕墙设计，节能建筑服务体系，一个高能源效益的冷却系统，以及先进的建筑节能和环境模拟。在建筑的全生命周期里，所有这些系统的综合使用将有助于限制对能源的消耗，加强环保意识，同时为深圳的天际线增添优美的一笔。

AT: What are some of the energy-saving strategies adopted by “KINGKEY 100”?

Stefan Krummeck: From an environmental point-of-view, the advantage to be facing primarily north south (particularly in China) is to reduce the east and west ‘heat gain’ elevations. The vertical fins help to reduce low-level glare and provide shading. Also, they are important for the fixing of maintenance systems. Major “Green” proposals included an environmentally friendly built form and envelope design; energy-saving building-services systems; a free-cooling system; and advanced building energy and environmental simulations. During the building’s lifetime, the net aggregate of all these systems will contribute to the limitation of energy use and enhance the profile of the development as an environmentally aware and responsible contribution to the skyline of Shenzhen.



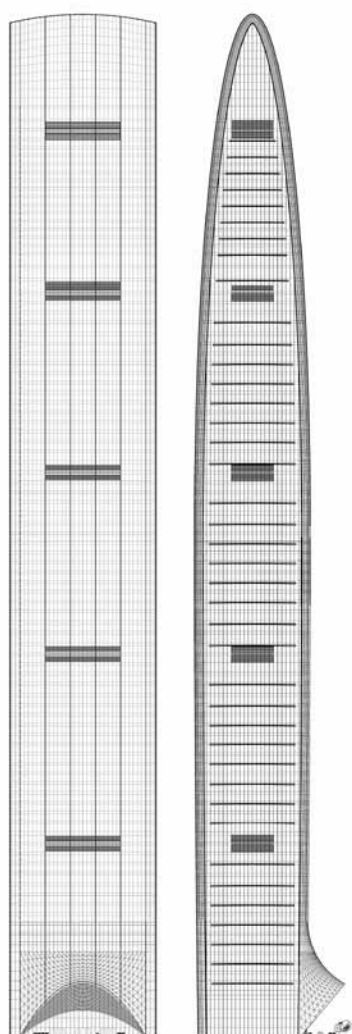
零售商业裙房入口 © Carsten Schael  
Photography



零售区中庭空间



内部大厅



南立面与西立面

AT: “京基100”在高度上的第一成就了其城市中的标志性，但建筑对于城市应不仅仅局限在标志性方面，此项目是如何考虑与城市、人的关系的？

**Stefan Krummeck:** “京基100”是一个具有创新性的高密度开发项目，采用了一种全新的方式应对城市的形成、发展和再生。它形成深圳新兴金融区的一部分，创造了在中国最成功的经济开发区内具有独特身份和目标的先例。

关于“京基100”与周围环境、城市的关系我们经过了仔细的考虑，尽管塔楼很高，但较低楼层和地面层的设计与周围的邻里关系形成了很好的交织，为深圳经济的增长和繁荣创造了一个充满活力的场所。

AT: “KINGKEY 100” first hails as the landmark of the city, but a great architecture goes beyond that, can you elaborate on its relationships with the city and people?

Stefan Krummeck: Kingkey 100 is an innovative high density project that takes an entirely new approach to city making, development and regeneration. It forms part of Shenzhen's new financial district and creates a new precedent for creating a distinctive new destination within China's most successful economic zone.

The interface with the surrounding urban context has been carefully considered. Despite the tower's height, lower level and ground floor uses are integrated successfully with the fabric of the surrounding neighborhoods to create a vibrant community with a strong sense of place as well as major focus for economic growth and prosperity within Shenzhen.

AT: 超高层建筑因投资巨大，通常都要考虑它的实用率和投资收益比率，能否谈谈“京基100”在这方面所做的具体设计？

**Stefan Krummeck:** 3.6ha的基地面积之前被密集的居住区蔡屋围村所拥有。开发商有创意地与村民一起成立一家公司，在深圳启动一种全新的拆迁安置方式。这为21世纪世界范围内的城市化进程提供了一种模式。现存的建筑损耗严重，居住条件也很差。作为发起这种转变的一部分，一个联合发展计划将村民变成了相关权益人。每一位业主都可以获得一个新的房产同时还可以得到一出新的住宅，这也意味着社区建设是由几代人的共同积累完成的。





京基100的夜景 © Carsten Schael Photography

不断激增的人口、拥堵的交通系统和严重短缺的可开发土地，已经成为深圳的重大问题。因此为了实现可持续的未来，一个合乎逻辑的关键解决之道就是向着高空发展。“京基100”作为一个可持续形式的浓缩体，将在今后不断增长的工作和生活环境的品质要求中做出重要贡献。

这个项目用如此小的占地面积容纳大量的人对环境是有利的，它缓解了绿色空间和当地交通基础设计不足的压力，同时也抑制了郊区蔓延。这一综合性多功能的开发模式创造了社区环境和新的工作生活方式，从而减少了对汽车的使用和依赖以及能源的消耗和污染。

AT: High-rise buildings, due to its great investments, have to take utility ratio and return on investment ratio into account, can you elaborate on this point?

Stefan Krummeck: The 3.6-hectare site was previously occupied by a dense residential quarter, Caiwuwei Village. The developer had the creative vision to form a company with the villagers, initiating an entirely new approach to the art of place-making in Shenzhen. This serves as a model for 21st century for urban change all over the world. Existing buildings were run down and living conditions were poor. As part of initiating this transformation, a Joint Development Initiative was formed in which villagers became stakeholders. Each owner was offered a new property as well as a second home which serves as an income generating asset. This meant the preservation of community links that are built over generations.

With Shenzhen's growing population, clogged transport systems and an acute shortage of affordable land for development, the increased population density has become a major issue, therefore the logical key to a sustainable future is to build upwards. Kingkey 100, a major sustainable form of densification, will play an important contribution to meeting the ever-increasing demand for quality working and living space in the city.

The development accommodating large numbers of people into such a small footprint is better for the environment, as it puts less pressure on green spaces and local transport infrastructure while reducing suburban sprawl. The development of this major mixed-use development creates communities and the idea of live and work in the same place, which diminishes the reliance on and use of the car as energy consumption and polluting force.