

# King Abdullah Financial District The Gem Building

Riyadh, Saudi Arabia

**Owner**

The Public Pensions Agency

**Client/Architect**

Henning Larsen Architects

**Developer**

Rayadah Investment Company

**General Contractor**

SBG

**Completion Date**

2012

**Total Area**

1.6 million m<sup>2</sup>



Courtesy Henning Larsen Architects



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Designed to be the new center for Middle East trade and finance, the King Abdullah Financial District is a 1.6-million-square-meter mixed-use development consisting of 30 plots connected by a network of skywalks and green recreational spaces. Our work with Henning Larsen Architects includes the Crystal Towers, the Gem Buildings and Villas in the Sky, for which we are providing structural and building skin engineering services.

Parcel 2.10, a mixed-use development known as the Gem Building, consists of two mid-rise reinforced concrete towers comprising residential units and offices that link to two gem-shaped structures below, which include a two-story steel-framed structure and a concrete shell forming a single crystalline roof over a double height retail space at the ground level.

The project features a multi-skin system composed of an internal glass and aluminum façade for weatherproofing and a stainless steel tensioned mesh screen covering an external walkway for shading and privacy.

Our use of BIM on this project affords several benefits including speedier modeling of complex building geometries; easier coordination with design team members, leading the faster clash detection and resolution; and easy generation of 3D visualization of the structure for more effective client presentations. Other benefits of BIM consist of higher quality shop drawings, interoperability of design platforms and greater design flexibility.