



Алютерра СК

СОВРЕМЕННЫЕ ФАСАДНЫЕ ТЕХНОЛОГИИ
ОБСЛУЖИВАНИЕ ФАСАДОВ

MERO TSK
International GmbH & Co. KG
Construction Systems

**1. Торгово-развлекательный центр
АФИМолл**

Россия, г. Москва
Архитектура: BBV Architects, Торонто
Проектирование, изготовление и монтаж:
• Пространственная технология устройства
конструкций кровли МЕРО-TСК (система КК + ВК);
• Площадь поверхности купола - 10000 м².

2. Культурный центр Гейдара Алиева

Азербайджан г. Баку
Архитектура: Заха Хадид
Заказчик: Ильхам Алиев
Проектирование, изготовление и монтаж:
• Пространственная технология устройства
конструкций кровли МЕРО-TСК (система КК)
• Площадь поверхности снаружи — 33000 м².

**3. Торгово-развлекательный центр
Ferrari World Theme Park**

ОАЭ насыпной остров YAS/ Абу Даби
Архитектура: Беной
Проектирование, изготовление и монтаж:
• Пространственная технология устройства
конструкций кровли МЕРО-TСК (система КК)
• Площадь поверхности снаружи с учетом
воронки — 195000 м².

ВЫСОТЫЕ ЗДАНИЯ

**АТРИУМЫ
В НЕБОСКРЕБАХ**
Atria in Skyscrapers

**ЛОВУШКА
ДЛЯ ВЕТРА**
Wind Catcher

**КОРОЛЕВСКИЙ
ПАРК**
Park Royal

**ЧИСЛЕННОЕ
МОДЕЛИРОВАНИЕ
НАГРУЗОК**
*Loads Numerical
Simulation*



НА ПРАВОМ БЕРЕГУ ХУАНПУ

Шанхай – город, построенный в дельте реки Янцзы, – разделен на две части ее притоком Хуанпу. Он входит в первую пятерку мировых мегаполисов по темпу развития и скорости роста населения. Это финансовая и коммерческая столица Китайской Народной Республики, деловой район которой располагается в **Пудуне (Pudong)** – территории на правом берегу реки **Хуанпу**, в большей степени застроенной небоскребами.

Материалы предоставлены **RRC Studio Architects**

3 а последнее десятилетие, которое прошло под знаком выставки Expo 2010, участки территорий рядом с рекой, а именно расположенные выше уже застроенного делового района, переживают общую реконструкцию, которая должна интегрировать их в существующий ландшафт мегаполиса. Именно в контексте этой трансформации итальянская архитектурная фирма RRC Studio Architects разработала проект многофункционального комплекса из трех башен смешанного назначения, который станет новым городским центром, местом для встреч, торговли и отдыха.

Комплекс расположится в самом перспективном для расширения районе Шанхая и призван стимулировать развитие активной коммерческой деятельности, частного жилого сектора, в то же время должен стать живой, удобной для пешеходов зоной, объединяющей бизнес и досуг.

В рамках проекта планируется обустроить территорию площадью 240 тыс. кв. м. Ее наполнят жилыми, коммерческими и гостиничными сооружениями. Развлекательным учреждениям отведен цокольный этаж комплекса площадью 55 тыс. кв. м правильной формы, разделенной на зоны.

Конструктивное решение основывается на соединении простых компонентов, а именно цокольного этажа и трех башен разной высоты и функциональной наполненности, каждая из которых имеет свой отдельный вход. При этом высотные здания словно вырастают из подиумной части комплекса.

Прозрачная часть облицовки цоколя, связывающего три высотных сегмента вместе как функционально, так и композиционно, состоит из 2 основных элементов: тонкого покрытия правильной формы, выполненного из белого металла, и

сплошного стеклянного фасада, характеризующегося своей неправильной формой и яркостью. Взаимодействуя друг с другом, эти детали маркируют общественные места, отделяя открытую площадку от внутренних помещений и направляя посетителей к различным входам в сооружение.

Благодаря правильной организации внутреннего пространства, подиум легко может вместить в себя различные многофункциональные помещения. Здесь расположатся коммерческие и развлекательные учреждения: кинотеатр, выставочные пространства, общественный театр, рестораны и кафе, подземная часть подиума отведена под парковку. Это большой участок, разделенный на разные уровни и освещенный естественным светом. Тут берут начало «дороги», которые ведут посетителей по разным маршрутам отдыха и развлечений.

С помощью эскалаторов и лифтов публика может подняться на все эксплуатируемые уровни, а также на территорию около комплекса, где разобьют городской парк и площадь. Здесь, на большом мощеном участке земли, авторы проекта предлагают посетителям место для проведения оздоровительных мероприятий на открытом воздухе, что является традиционным времяпрепровождением в Китае. Подобная структура постройки объединяет жизненное пространство вокруг башен в своеобразный район.

Высотные здания соединены с цоколем и представляют собой простые большие квадратные объемы с гармоничными пропорциями, где главная роль отведена дизайну фасада.

Главный вход в комплекс находится в восточной части подиума, в углублении. Чтобы попасть сюда нужно пройти через широкие двери.

Все три башни имеют сплошной фасад с каркасом золотистого цвета, который разделяется широки-

MULTIFUNCTIONAL COMPLEX

Расположение:

Shanghai, Китай

Функциональное назначение:

торговля, офисы, клиника, жилье

Площадь застройки:

240 тыс. кв. м

Дата начала строительства:

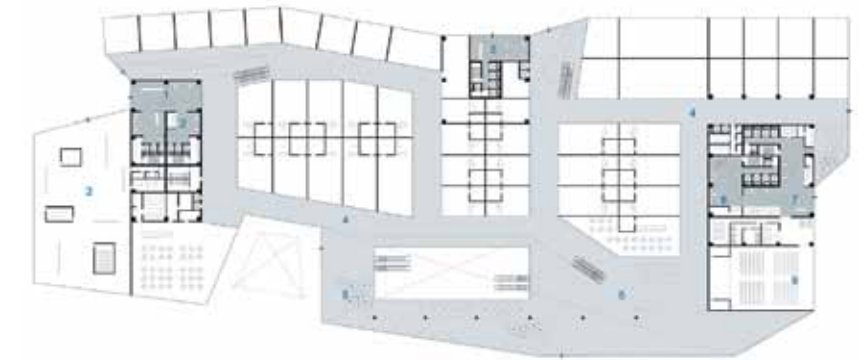
2013



Интерьеры подиумной зоны



Входная зона



Поэтажный план

Схема комплекса



ми проемами, подчеркивающими их функциональное деление.

Высота Tower 1, вход в которую находится на южной стороне комплекса, составляет 145 м. Она рассчитана на 39 этажей, первые 3 из которых приходятся на цоколь. Ее форма состоит из 2 перекрывающихся объемов. В нижней части, имеющей вид параллелепипеда, располагаются 20 этажей отеля класса люкс, оснащенного всеми удобствами, которые могут быть в гостинице такой категории. А в верхней, в виде трапецевидной призмы, расположены 16 этажей с первоклассными апартаментами, уникальными по своей сути, из окон которых открывается панорамный вид на город.

В Tower 2 можно войти через западный вход, расположенный в основании комплекса. Это самое тонкое и в то же время самое высокое здание объекта.

Стройная по своей форме, устремленная в небо, она вытянулась на 210 м вверх. В общей сложности она рассчитана на 57 этажей, без учета цокольного уровня. Tower 2 полностью отведена под реализацию функций, относящихся к сфере услуг. Она состоит из стандартных этажей, задуманных как большие открытые пространства, чередующихся со специальными уровнями с двойной и тройной высотой потолков, которые должны стать залами для проведения собраний, конференций и т. д. Последние уровни здесь отведены под зоны рекреации с комнатами отдыха, спа-салонами с бассейном, павильоном и бельведером.

Вход в Tower 3 находится в северной части комплекса, и ее габариты словно оппонируют огромным размерам Tower 2. Высота этого здания составляет только 137 м, в нем находится в общей сложности 32 этажа (без учета цокольных). В нижней

части башни располагаются офисы, которые занимают 18 уровней, в то время как жилые квартиры располагаются на 14 верхних этажах. Вестибюль построен таким образом, что он направляет посетителя в различные помещения башни, среди которых следует упомянуть зал собраний.

Подобная структура комплекса должна не только создать комфортное пространство, но и привести к эффективному потреблению энергии и воды: высокоэффективное остекление окон, вентилируемый фасад и естественное освещение сокращают потребность в электрическом освещении. В дополнение к этим техническим особенностям здесь будут использоваться и другие эффективные строительные системы, например естественная вентиляция, что сделает его примером экологически чистого строительства. ■

ers of the residential complex Riverside South named One Riverside Park, which is located in the Upper West Side. The Upper West Side is a neighborhood in the borough of Manhattan, NYC, that lies between Central Park and the Hudson River, and between West 59th Street and West 116th Street.

Like the Upper East Side, the Upper West Side is an upscale, primarily residential area. It has the reputation of being home to New York City's cultural, intellectual hub (with Columbia University located at the north end of the neighborhood), and artistic workers (with Lincoln Center located at the south end), while the Upper East Side is traditionally perceived to be home to commercial and business types. One Riverside Park, the newest luxury condominium in Riverside South, a thriving enclave on the Upper West Side.

BUILDING'S EXTERIOR

Designed by award-winning architecture firm Goldstein Hill & West Architects, One Riverside Park, located at 50 Riverside Boulevard and 62nd Street, between Eleventh and Twelfth Avenues brings a new level of refinement to waterfront living on Manhattan's Upper West Side. The building rises 604 feet (184 m) above street level, containing 33 floors and 219 residential units.

The building was designed by the architectural firm Goldstein, Hill & West Architects, who also designed The Aldyn and The Ashley, also on Riverside Boulevard, plus the Silver Towers Manhattan development. The building has an underground tunnel linking residents to the LA PALESTRA Athletic Club & Spa next door in The Aldyn.

The building's exterior, which will be constructed primarily from glass and limestone, was designed to complement the modern aesthetic of the Riverside South neighborhood.

According the architects "the original buildings were governed by zoning and design guidelines that were restrictive in the amount of glass and stone used," said Mr. Hill. "With this building we have more freedom with its façade and materials."

Buildings on the northern end of the site tend to have heavier materials and smaller windows, he noted. The new tower at 40 Riverside will have a stone base but transition into more glass as it rises, he said. It will have an "appearance of a curtain wall."

INTERIORS

The new condominium offers spacious apartments, many with expansive private terrace space and majestic views. One Riverside Park consists of 219 spacious luxury residences, which feature interiors and finishes by visionary interior designer Shamir Shah. Many of the homes feature floor-to-ceiling glass with endless views of the Hudson River, Riverside Park and the Manhattan sky-

line. The development offers the best of urban living in a new and vibrant neighborhood, coupled with unrivaled amenities and services.

"The full-floor penthouse residences at One Riverside Park, with nearly 100 feet of frontage directly on the river, are nothing short of phenomenal. They offer spectacular 360-degree views and the finishes by Shamir Shah are absolutely gorgeous," said Beth Fisher, Senior Managing Director of Corcoran Sunshine Marketing Group. "The West Side is really starved for large residences and we expect these to be in very high demand."

Shamir Shah brings a warm, modern elegance to One Riverside Park. The project's lobby includes the lavish use of natural materials including travertine accented with decorative metal work, a hand-selected mural from the world-renowned New York artist, Malcolm Hill, and a custom hand-blown glass chandelier. The building's residences keep with the aesthetic of the lobby and were designed to be modern and warm with the use of natural materials.

One Riverside Park offers layouts tailored for a variety of selective buyers. Residences range from one-to seven-bedrooms, including five full-floor penthouse residences, each featuring six-bedrooms with more than 6,000 square feet of living space and breathtaking panoramas. There are also two unique duplexes each offering a 29' by 12' private pool as well as a 17th story apartment which also offers a 29' by 12' private pool.

Prospective buyers are given the signature "Extell Choice" of two custom kitchen selections. The light package offers white polished lacquer cabinetry accompanied by Montclair Danby Striato countertops and backsplash with stainless steel accents. The darker kitchen finish offers dark stained oak millwork with charcoal high-gloss polished lacquer wall cabinetry coupled with Basalt marble countertops and backsplash with metal mosaic accents and tiles. All kitchens are equipped with a premium Miele appliance package. All of the homes feature European stained, white oak hardwood flooring throughout.

Master bathrooms incorporate luxurious deep soaking tubs, Dornbracht fittings and fixtures, double vanities and separate glass showers. Concordia marble floors are paired with Bianco Dolomite marble walls. Secondary baths are designed with Apavisa Lava tile floors, Bianco Dolomite counter tops and Kohler fittings and fixtures.

AMENITIES

The luxury condominium will feature over 50,000 square feet of lifestyle amenities, including a 40,000-square-foot athletic club and spa. One of the city's largest private residential athletic clubs, LA PALESTRA, at One Riverside Park, includes a 75-foot swimming pool, 38-foot rock-climbing wall, full-size basketball and squash courts, two-lane bowling alley and club lounge, and a golf simulator. The club also offers personalized services and classes includ-

ing yoga, Pilates, personal training, and Kinesis. Spa facilities include expansive men and women's locker and dressing rooms, sauna and steam rooms, and private treatment rooms.

One Riverside Park will feature additional lifestyle amenities including a game room with billiards and ping pong, indoor playground designed by Kidville, function room with full catering kitchen, private screening room, residents lounge and landscaped garden courtyard designed by Matthews Nielsen. The impressive lobby designed by Shamir Shah will feature a 24-hour doorman and concierge service. An on-site parking garage is also available.

NEIGHBORHOOD

Overlooking the Hudson River and boasting expansive views of Riverside Park South and the New York City skyline, One Riverside Park features not only original facade and elegant interiors. Riverside South is conveniently located steps from some of New York City's most desired cultural attractions, Lincoln Center for the performing arts, Central Park, Time Warner Center, and some of the city's finest dining and retail destinations.

Designed by Thomas Balsley, Riverside Park South offers 21 acres of open space, sports fields, playgrounds, plazas, piers and intimate gardens easily accessed by residents. Select recreational opportunities include kayaking, fishing and sailing along the Hudson.

The final piece of the Riverside South community will be Riverside Center, which, once completed, will provide the neighborhood with over 100,000 square feet of shopping, dining and retail services, a public K-8 school and 3.2 acres of green space.

Occupancy of the building is slated for 2015.

One Riverside Park

Location: 40 Riverside Boulevard, NYC
Design and construction Architect: Goldstein, Hill & West Architects

Developer: Extell Development Company

Structural engineer: WSP Cantor Seinuk

Other designers: Shamir Shah

Height: 184 m

Floor count: 33

Type: Residential

Status: In development

Construction started: 2012

Opening: 2013

Completed: 2015 ■

COMPLEX

On the Right Bank of the Huangpu

(p. 72)

MATERIALS PROVIDED BY RRC STUDIO ARCHITECTS

Shanghai, is the city developed by the Huangpu River since the 10th Century, at the Yagtze River delta, is one

among the first five of the World's metropolis for extension and population. Considered as the financial and commercial capital city of the People's Republic of China, Shanghai finds its business district in Pudong, an area which is built more or less of skyscrapers, located on the right bank of the Huangpu River.

In the last decades, also driven by the realization of Expo 2010, the areas next to this river, all above those located on the right bank, have experienced a general redevelopment aimed to their integration with the existing urban fabric. Right in this context of transformation, Italian architectural firm RRC Studio Architects was commissioned to designed a project of multifunctional complex comprising three mixed use towers

The Multifunctional Complex located in a prosperous expansion of Shanghai takes form as a new urban core, place for meetings and exchange, activating a vibrant commercial zone, a private residential area and a lively, walkable district for business and entertainment.

The project involves the construction of 240,000 square meters of residences, retail and hotel components with a strong focus on leisure activities in the basement, on a parcel area of regular form of 55,000 sqm. The Complex at the same time, a vibrant commercial zone, a private residential area and a lively, walkable district for business and entertainment.

The design concept is based on the composition of simple elements such as the base and the three towers. On an urban level the project is proposed as a wide slab made of two main elements: a thin covering of regular form, in white metal; a continuous skin, irregular and vibrant, in glass. The two elements, in an open interaction with each other in the composition of the base, define the different public areas separating the outdoors from the indoors and directing the user to the different entrances of the complex. Upon the base the three towers stand out, each with different height and functional use, recognizable from the ground floor thanks to their independent entrance to each one of them.

This services provide abundant outdoor living space for the tower, tying them into the surrounding neighborhood.

The base is configured as a multifunctional slab with an articulated form which embraces the bases of the towers and, thanks to its spatial organization, is able to host and distribute easily the numerous functions settled within. It is the collector of commercial and recreations activities such as a

cinema, exhibition spaces, a public theater, restaurants and cafes. This place is presented as an ample surface on different levels, lit up by natural light, characterized as a place for meetings and exchange, with restaurants, cafes, spaces to relax and with recreational functions.

From here the different "roads" radiate outward, accompanying the visitor through the discovery of the different shops of the center.

Through the escalators and the lifts it is possible to reach, other than the various commercial floors, the covering of the base characterized as an urban park-square where the public functions of the towers look out to and, thanks to the ample paved spaces, offer the users, as usual in China, spaces where they can carry out outdoor recreative activities.

The volumetries of the towers are juxtaposed to the base, presenting themselves as squared and pure volumes, with harmonious proportions, where the facade design has a fundamental role.

The main entrance is located on the east side through a deep indentation which, going past the wide doors, allows to enter the indoor square of the complex.

The three towers feature a continuous skin, made of a golden frame interrupted only by wide openings that emphasize the correspondent functions contained within the tower.

Tower One, which is accessible from the south entrance of the slab, is 145 meters tall, with a total amount of 39 floors, the first three of base. Its form is made of two overlapping volumes: in the lower part a parallel-form of 20 floors, hosting a Luxury Hotel equipped with all comforts of a maximum category hotel; in the superior part a trapezoidal base prism of 16 floors, hosting luxury apartments, unique in their genre, with a panoramic view to the city.

Tower Two is to be accessed by the west entrance of the base and is the thinnest and at the same time the highest tower of the complex. In its slender form, projected to the sky, reaches 210 meters for a total amount of 57 floors not including the base. This tower, wholly destined to tertiary functions, presents standard levels conceived as large open spaces alternated with special levels, double, triple height, destined to boardrooms containing meeting rooms, congress halls, etc.

Being the tallest of the complex, the highest floors are destined to amenities, with recreation rooms, a Spa including a pool, a pavilion and a Belvedere.

Tower Three, accessible from the North side, is opposed with Tower Two with its sheer size. This tower, only 137 meters tall, for a total amount of 32 floors not including the base, includes offices in its lower part, its first 18 floors, whereas the residences are contained in the remaining higher 14 floors. The tower's hall is configured to distribute the entrance to the different functions among which a congress hall.

The intervention is designed to use energy and water efficiently; high performance glazing on the windows, the curtain wall and daylight decrease the need for electric lighting. In addition to these devices, the Complex will integrate other advanced building systems, like natural ventilation, to be an example of sustainable architecture.

Multifunctional Complex

Location: Shanghai, China

Functionality: trade, offices, hospital, housing

Building area: 240 000 sq. m

Construction start date: 2013 ■

STYLE

Gem of the Diamond District

(p.76)

MATERIALS PROVIDED BY EXTELL DEVELOPMENT COMPANY

Midtown is hardly the love-liest part of Manhattan, and few parts of Midtown are quite as unlovely as the stretch of 47th Street between Fifth and Sixth avenues. This corner of creation is known worldwide as the Diamond District and, with the possible exception of the city of Antwerp in Belgium, it's home to the biggest diamond emporium in the world.

Into this mix now came the International Gem Tower, a 34-story colossus designed by Skidmore Owings and Merrill and developed by Extell Development Company.

The tower was erected within the context of the "47th Street Business Improvement District" city programme. 20 floors of condominiums is a rare type of tailored architecture specifically for the diamond, gem and jewelry trade. The building was completed in summer 2013.

Just about the biggest structure on the street, it brings a blast of contemporaneity to this tired and superannuated part of the city. The form is dully conventional, but the jazzy surface treatment achieved the distinction that is promised in the renderings.

Aesthetically speaking, the facade of the IGT is like a monochromatic kaleidoscope. Different patterns become visually prominent depending on the light and the viewing angle. Sometimes, the building appears festooned with diamonds. At other vantage points, the diamonds aren't visible and instead, facets at different levels link to form step-like patterns that zigzag down the building. Depending on the angle, these zigzag patterns sometimes appear to go from right-to-left, and sometimes appear to go from left-to-right. Architecturally, the IGT's claim to fame is skin deep: Architects Skidmore, Owings

& Merrill call it "crystalline curtain wall with embedded steel medallions." The reflective surfaces change appearance as the sun moves – especially if viewed through polarized lenses – because metal and glass reflect light differently.

The International Gem Tower (IGT) may be the only building in New York with a name that alludes to both facade and function. Its exterior of interlocking facets connotes the precious stones that will be bought and sold inside. The architects appear to have followed a modified modernist dictum "facade follows function," and the result is generally satisfying, both for symbolic reasons and as an aesthetic object.

Symbolically speaking, the design of the IGT is strongly contextual, as it signifies its location in the Diamond District, the site of much of the wholesale diamond business in the United States. The Diamond District is an increasingly isolated example of a place that dominates an industry, and is for this reason a particularly suitable place for such symbolism. Meanwhile, the icons of Wall Street and Seventh Avenue stand increasingly isolated from the dispersed industries they represent.

Needless to say, this building is fun to look at, although all of this whimsy may come with a cost. The facets of the building at times reflect very bright light onto the street in a way somewhat reminiscent of the "Walkie Talkie" building in London, which has concentrated light onto an adjacent street, burning carpets and melting cars. The concentration of light reflected onto the street by the Gem Tower isn't nearly as extreme however, and could even prove to be beneficial during winter months. In the dark time illuminated offices will further change the building's appearance – it may become mesmerizing.

The endurance of the Diamond District, perhaps aided by the addition of the IGT – and, admittedly, tax incentives – is appealingly quaint. On the question of permanency, it is perhaps notable that the tenants of the IGT will own rather than lease their space. This may be reassuring to those who seek a sense of place and find it lacking in a world of mobile firms, anonymous office buildings and fungible office space.

Within the building's exterior facade of gem-like crystalline and steel, the model displays sophisticated metal-and-glass office walls with sliding doors of frosted glass. The feature walls, along with the pantry and print-room cabinetry, stand in beautiful, stained rift-cut oak veneer, complimented by polished work-tops of solid stone. The model's perimeter offices and conference rooms boast lofty 10-foot ceilings, with the latter embellished with recessed down-and-cove-lighting.

Custom furnishings in rift-cut oak veneer, polished chrome and stone slab sit on broadloom carpeting, adorning the elegant and modern space. Owners will have a unique opportunity to design their office condominiums at IGT. Efficient floor plates creates conditions for optimized layouts and space planning. Offices range from full floors to 1,000 SF suites.

Dramatic design of the entrance lobby includes decorative elements of glass and natural stone.

Beneath the skin, International Gem Tower has other innovations specifically focused on the diamond trade: secure underground delivery bays, double door (man trap) entry to office suites and other security systems, such as, for example, provided there state-of-the-art UL-rated, class 3 vaults, modern infrastructure to support jewelry manufacturing and secure, underground secure valet parking.

Fully-integrated security management system also includes emergency generators for life safety, security and critical operations.

The building has also been certified as New York's only U.S. Foreign Trade Zone – allowing duty-free import/export within the building.

The building's other distinction is that it is two buildings in one. The first 20 floors are being sold to diamond industry tenants as condominiums. The first three floors have been sold to Turkish-based Gulaylar Group for a retail mall. The upper 14 floors are being leased to non-diamond industry tenants – these occupants have their own entrance, at 55 W 46th Street, in the midst of Little Brazil.

There's a pleasant little public access space behind 1166 Sixth Avenue (between W 46th and W 45th Streets) where you can sit and contemplate IGT's changing visual patterns. Business premises, the wait staff and full-service concierge are functioning in the building 24 hours 7 days a week. For the convenience of its inhabitants are provided private health & fitness center, a restaurant and a specially designated area for bicycle storage.

The project strives to achieve LEED® Gold certification by using FSC® certified wood products, recycled content, a water conserving plumbing system, efficient plumbing fixtures, water-efficient landscaping and low-emitting materials for paint, carpet, adhesives and sealants.

The building will also control indoor chemical and pollutant sources, provide thermal comfort and implement parking spaces under cover and incorporate reflective materials in the roof design to reduce the heat island effect. The project will also divert 50% of construction waste. Security, logistics and material deliveries will be crucial components of this project due to its challenging location.

International Gem Tower

Location: New York, Manhattan
Developers: Extell Development

Architects: Skidmore, Owings & Merrill

Functionality: offices, condominium

Architectural height: 140.2 m

Number of floors: 34

Construction: steel

Facades: glass, steel

Type of facade: curtain wall system

Facade color: blue

Start of construction: 2008

End of construction: 2013

Style: postmodern