

## Facade Construction

An undulating external building shape enveloped with a multi-coloured louvered wall: the unconventional exterior is the secret of the Skyline Plaza's vibrant presence. In developing the facade, our engineers took advantage on their long experience, design creativity and in-depth know-how.

### ■ A successful partnership: Anders Metallbau and ECE

The planning, development, letting and operation of shopping centres is the speciality of real estate company ECE Projektmanagement. The Hamburg-based experts now manage 189 retail complexes in 17 European countries. The Skyline Plaza is already Anders Metallbau third shopping centre scheme, after the company was contracted by ECE to construct the facades for the Marktplatz-Center in Neubrandenburg and the City Point in Kassel. Following a nearly two-year design and installation period, the curtain wall for the Skyline Plaza was completed in August

2013, in good time for its opening on 28 August 2013.

The characteristic feature of the Skyline Plaza is its architectural composition, developed by the eminent practice Jourdan & Müller. For the upper levels, the Frankfurt architects designed a swirling, wave-like louvered wall that wraps around the building as a tight-fitting skin. The aesthetic appeal is particularly highlighted through the use of colour louvers.

On plan, the five-storey building forms a large oval. Served by a car park at basement level, the spacious shopping emporium occupies the ground and first floors. This is clearly signalled on



The louvered wall emphasizes the living design.

the exterior by the generous shopfronts and aluminium-sheet cladding.

### ■ Brainchild by our engineers: the louvered wall structure

Ingenuity and experience helped our engineers identify the best solution for the approx. 11,000 sqm louvered wall: this took the form of a specially developed assembly comprising horizontal and vertical steel sections connected by freely adjustable nodes. At the design stage, our engineers opted for a completely new construction concept based on three-dimensional detailing. The structural calculations were performed in collaboration with the Kassel-based engineering practice Ingenieurbüro Stahlklar.

The louver wall was fabricated and assembled at our workshops in Fritzlar and Borken using state-of-the-art manufacturing technology. Overall, our specialist fabrication teams processed some 300 tonnes of steel sections in various sizes.

The louvered wall comprises 3,000 different vertical and 1,200 horizontal louvers. Over 15,000 sqm of aluminium sheet in more than 60 colours and high-gloss-polished stainless-steel sheet was needed to fabricate the louvers.



The innovative colour scheme of the louvers, reminiscent of a rainbow from some angles, plays with the onlooker's perception.



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What we most appreciate about our clients and architects with whom we work is their principled rejection of standard architectural solutions. All Anders Metallbau components for the Skyline Plaza – from the curtain walling to the entrances and rooftop structure – were customized-fabricated.

The brackets used by our installers to fix the structure to the building shell were specially designed for the project. The installation works were supervised, co-ordinated and monitored by our own site managers, in close consultation with the client.

### ■ Intriguing glimpses of the emporium: the glass facades

The ground floor and parts of the first floor of the Skyline Plaza are clad with a glass facade. Overall, Anders Metallbau fabricated and installed over 4,000 sqm of glass curtain walling to the shopfront and office areas on these two levels. Curved glass was incorporated in some sections of the entrance fronts.

### ■ Added value for visitors: the landscaped roof

On account of its high-profile location within the Europaviertel district, the Skyline Plaza was graced with an elegantly modelled „fifth facade“. Alongside generously designed green spaces, known as the „Skyline Garden“, the rooftop facilities include a restaurant with terraces plus the outdoor area of a fitness and wellness centre, on the third and fourth upper storeys.

The tasks facing Anders Metallbau were multifaceted: in the area over the



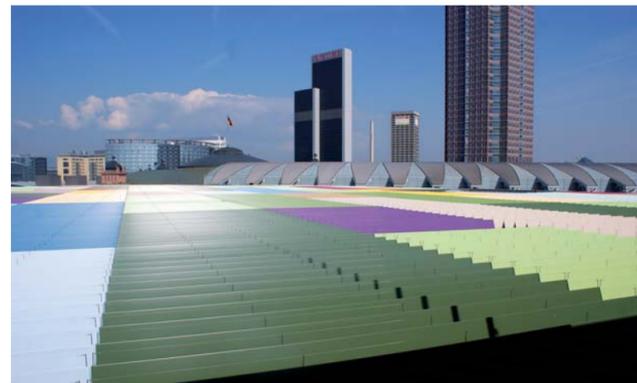
Centrally located on Europaallee: the main entrance to the Skyline Plaza.

parking decks, the roof is clad with triangular louvers with a total length of around 18,000 m. Here too, a special coated finish was applied in 15 different colours to underline the building's unique character.

For the Skyline Garden restaurant, Anders Metallbau fabricated and installed a series of sliding doors in special sizes up to 2.50 m wide and

4.00 m high. Also included in the package was the sheet-metal cladding to wall and soffits areas of the building envelope. We also supplied and installed well over 50 doorsets to the building. The doors at the entrances were required to meet the highest performance standards.

Numerous fire doors were also incorporated throughout the building.



Unique feature: the flat roof, designed as a „fifth facade“, adds the final touch to the overall aesthetic concept.



## Skyline Plaza Shopping Mall Europaviertel District, Frankfurt/Main



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Lead design: ECE Projektmanagement GmbH & Co. KG, Hamburg  
Facade design: Jourdan & Müller, Frankfurt/Main  
Developer: Joint venture between ECE Projektmanagement GmbH & Co. KG, Hamburg, and CA Immobilien Anlagen AG, Vienna  
Curtain wall package: Anders Metallbau GmbH, Fritzlar

## Mission

The Europaviertel is a widely acclaimed urban development scheme in Frankfurt/Main. Work on the complete area is scheduled for completion in 2019, by which time it will house some 10,000 residents and around 30,000 workplaces. The opening of the Skyline Plaza shopping mall in August 2013 gave an enormous boost to the new quarter's profile.



Corrugated suction effect: designed by Jourdan & Müller, the Skyline Plaza's louvered wall creates a distinctive accent.

### Not satisfied with pure consumer temples: ECE-architects

Can a retail complex be more as just a pure consumer temple and reevaluate the environment of an entire residential neighbourhood? This was the question pondered by Skyline Plaza's developers – shopping centre specialist ECE and real estate company CA Immo. And that for good reason. Occupying a prominent, central location between the Messe Frankfurt exhibition centre, the city's banking district and the main

train station, the Skyline Plaza forms the urban focus of the Europaviertel quarter. Its architects faced a variety of challenges: the mission called for a scheme that would connect with the urban context, invigorate the location and create added value for people in the Europaviertel and adjoining districts. The concept developed by lead designer ECE-architects excels by its innovative detailing and sets the Skyline Plaza apart from the city's other malls.

### Geared to users: the architectural concept

The dominant feature at ground-floor level is the shopfront facade. The undulating upper-storey elevations cantilever to varying depths from the line of the facade and form canopies above the four entrances. Located on the western front, the main entrance opens onto the Europaboulevard.

The ground and first floors form a continuous shopping area covering over 38,000 sqm and accommodating around 170 specialist stores, restaurants and service provider outlets. A particular eye-catcher is the approx. 400-seat food court. The mall is a popular leisure-time destination for the residents of the Gallus and Westend districts, commuters and exhibition visitors.

As an added attraction, the Skyline Plaza will, as of February 2014, boast the city's biggest fitness and wellness centre, covering some 10,000 sqm on the third and fourth upper storeys. An additional 1,500 sqm will be provided on a roof terrace.



Energy-efficient LEDs illuminate the vertical louvers at night.



## Building Design

Despite the building's conventional oval-shaped plan, the visible exterior of the Skyline Plaza is nothing less than spectacular. With sweeping undulations, the louvered wall wraps neatly around the entire building shell to form a tight-fitting skin.

The shopping centre's main crowd-puller is the rooftop Skyline Garden. Spanning some 7,300 sqm, the spacious landscaped area tremendously reevaluates the quality of the systematically planned, densely developed Europaviertel quarter. Indeed, it is a rare delight to step out onto the flat roof of a tall building that is uncluttered by vents, utility pipes and structural members. Those areas that are not covered by rolled turf, cast-stone flags or potted trees are topped by rainbow-coloured louvers. ECE-Architekten partnered distinguished landscape architects in creating a multi-faceted roofscape with lawns, garden courtyards and recreational facilities such as boulevards, table-tennis and children's play areas. Visitors can also relax in the rooftop restaurant which has two outdoor terraces.

### Invent facade structure constantly: architects Jourdan & Müller

In approach of a new project, architectural practice Jourdan & Müller dispenses with any stylistic preconceptions and sets about fashioning an eloquent architectural response to the particularities of the surrounded location. And it is precisely this open-minded approach that enables the Frankfurt-based architects to lend their buildings such a novel and distinctive presence.



The curvilinear facade with the Skyline Plaza's trademark coloured louvers.

For example the Skyline Plaza. While many large shopping centres create a monotonous atmosphere with dead-straight circulation routes, the new Europaviertel mall captivates visitors with its curvilinear building envelope and gently meandering shopping promenades. The architects at Jourdan &

Müller consciously respond to the heterogeneous setting: the Europaviertel is anything but the product of organic urban evolution, having been built on the site of the former main freight station in Frankfurt's Gallus district. Due for completion in 2019, the new quarter features a potpourri of building forms, including office towers, commercial premises and residential blocks.

Taking their cue from the multifarious environment, the architects at Jourdan & Müller opted to wrap the glass facade in an envelope of expanded metal and louvers. While the louvers are rhythmically configured in a regular pattern, their spacing varies from storey to storey. The louver edges are reflective and mirror the surroundings. One face of each louver is coloured in such a way as to create a rainbow pattern running once around the building. The opposite louver faces, by contrast, alternate between black and white. The facade's visual impact is thus constantly in flux, depending on the vantage point.



The Skyline Plaza blends harmoniously into the Europaviertel's urban structure.

## Interiors

While a hectic atmosphere prevails in most shopping centres, the designers of the Skyline Plaza proposed the opposite principle: deceleration. Shopping, strolling, dining – the Skyline Plaza allows visitors to do all of this at a leisurely pace. For most, however, the supreme experience is situated at the very top of the building, in the landscaped rooftop garden.

### Sinuous forms, natural light, soft colours: the Skyline Plaza's designers consciously shun sensory overload

While most shopping centre interiors bombard visitors with stimuli, Mark Gurney, Director Creative Design at ECE, championed the exact opposite. The Skyline Plaza offers a congenial background ambience. The colour scheme, featuring a warm orange and floor tiles in a soft latte beige, was shrewdly selected. The mall interior is further brightened by daylight admitted through glazed roof lights. As Mark Gurney points out, the guide theme of the design is a visual stroll through Frankfurt. The mall is laced with emblems of the city, such as the skyline, the diamond-shaped features of the city's high-rises and ribbed forms, which were borrowed and adapted by the project artists.

Lying at the heart of the Skyline Plaza is a large square with tree sculptures and wood artefacts. This is the site of Frankfurt's biggest food court with a generous selection of restaurants. Yet, the Skyline Plaza's undisputed highlight is the publicly accessible roof garden, which also offers ample recreational attractions. For the physically and mentally active, these include table tennis, boules and giant outdoor chess. Those seeking relaxation, on the other hand, can make a beeline for the garden courtyards and savour the view of the Taunus mountain range, a shimmering bluish-grey silhouetted against the horizon.



## Facts and figures: the essentials in brief

<b>Employer/architect/project team:</b>		<b>Curtain wall structural engineering:</b>	Ingenieurbüro Stahlklar, Kassel
<b>Developer:</b>	Joint venture between ECE Projektmanagement GmbH & Co. KG, Hamburg, and CA Immobilien Anlagen AG, Vienna	<b>Project data:</b>	
<b>Lead design, letting, centre management:</b>	ECE Projektmanagement GmbH & Co. KG, Hamburg	<b>Storeys:</b>	5
<b>Architect:</b>	ECE-Architekten	<b>Shopping area:</b>	Approx. 38,000 sqm
<b>Facade design:</b>	Jourdan & Müller, Architecture & Urban Design Project Group, Frankfurt/Main	<b>Skyline Garden:</b>	Approx. 7,300 sqm
<b>Skyline Garden design:</b>	ECE-Architekten; Bittkau – Bartfelder + Ingenieure GbR, Wiesbaden; Mahan Rykiel Associates, Baltimore/USA	<b>Construction period (months):</b>	18
<b>Curtain wall package:</b>	Anders Metallbau GmbH, Fritzlar	<b>Completed works:</b>	
<b>Facade component suppliers:</b>		<b>Vertical louvers:</b>	Approx. 3,000
<b>Sliding doors:</b>	Schüco International KG, Bielefeld	<b>Horizontal louvers:</b>	Approx. 1,200
<b>Doorsets:</b>	Schüco International KG, Bielefeld	<b>Louvered wall:</b>	Approx. 11,000 sqm
<b>Special sections/louvered wall:</b>	Schüco International KG, Bielefeld	<b>Glass facade (shopfronts, offices):</b>	Approx. 4,000 sqm
		<b>Cladding with louvers (over parking decks):</b>	Approx. 18,000 m
		<b>Sliding doors (roof garden restaurant):</b>	Approx. 10
		<b>Doorsets:</b>	Approx. 50
		<b>Sheet-metal cladding (walls, soffits):</b>	Approx. 1,500 sqm

Picture sources: The picture rights to all photos marked accordingly reside with Jens Kirchner, Düsseldorf, and Action Press, Hamburg. All other photos were taken by our project managers.

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