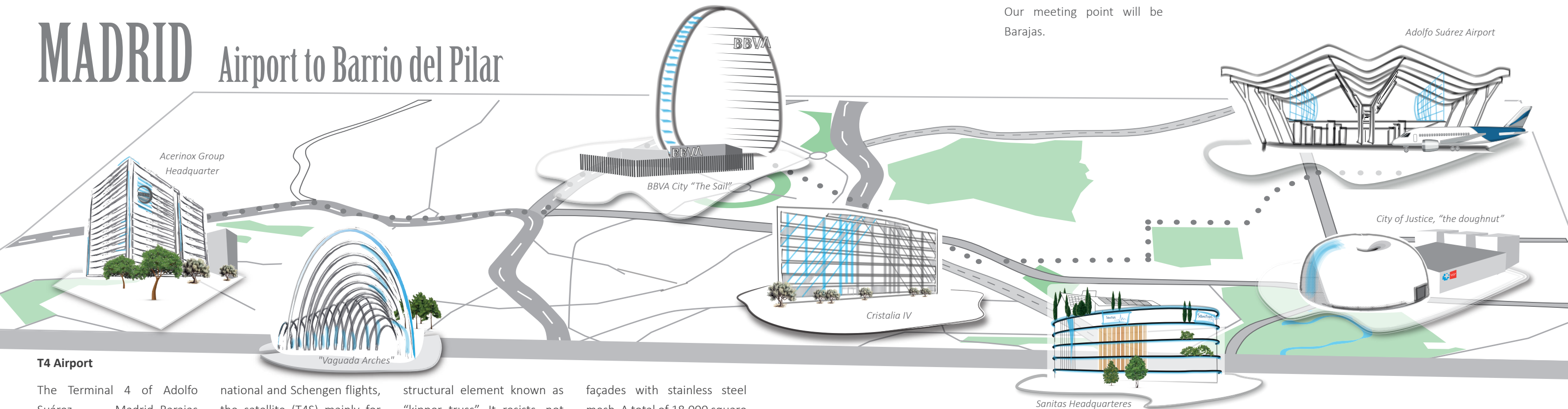


# MADRID

## Airport to Barrio del Pilar



Our meeting point will be Barajás.

Adolfo Suárez Airport

### T4 Airport

The Terminal 4 of Adolfo Suárez Madrid-Barajas Airport, is a design conceived by the British architect Richard Rogers, in collaboration with the Spanish architect Carlos Lamela.

The complex is made up of three buildings, T4 for

national and Schengen flights, the satellite (T4S) mainly for international flights, and a parking lot with capacity of 9,000 vehicles. This extension of the airport is sized for 35 millions of passengers per year. It highlights its outstanding glass façade, solved with a huge dimension

structural element known as “kipper truss”. It resists, not only the loads of the façade, but also acts as bracing for the rooftop. Every component was designed ad hoc by Folcra, the company responsible for the engineering of the façade, because the conventional elements were not able to resolve the technical requirements of the design that architects established. For the principal components of the kipper truss stainless steel with high mechanical strength is selected (1.4462), to support the stresses of the post-tensioning system in combination with the dead load, wind load and the expansions of the façade. While 1.4401 (AISI 316) is used for the transverse braces. To complete the whole construction, AISI 316 brise soleil, handrails and interior panellings were built.

Additionally the intervention includes the cover of some surfaces of the parking lot

façades with stainless steel mesh. A total of 18,000 square metres were covered, with an aperture mesh of 64%, guaranteeing natural light, lighter weight and more comfort in every module.

Very close from Terminal 4, is Valdebebas neighbourhood, and just beside Isabel Zendal Hospital we will stop again

### City of Justice, “the doughnut”

The first and unique finished building of an ambitious project to build a City of Justice in Madrid, is popularly known as “the doughnut”. This construction was Alejandro Zaera-Polo’s design. Currently, the building hosts the Institute of Legal Medicine and

Forensic Sciences in its eight circular storeys. The envelope is composed of two separated faces, the inner surface is spheric and a skylight covers it, while the exterior one, with a bigger radius is joined to the first one through a toroidal shape.

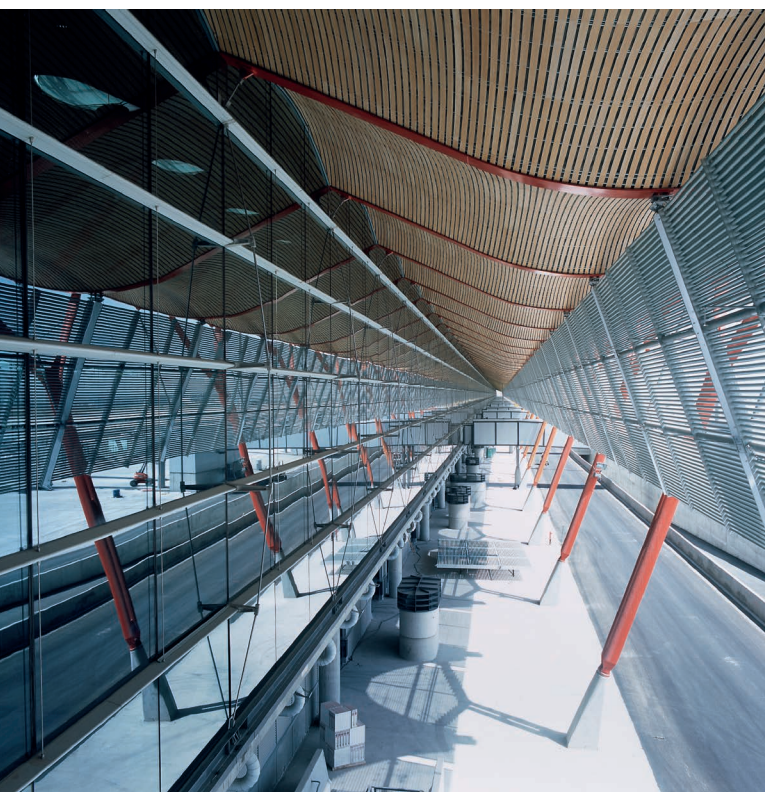
The outside skin is perforated stainless steel and seeps into the inner courtyard, unifying the spaces. This second skin has the function of controlling the temperature and the solar incidence through the aperture of the perforations, providing energy efficiency.

Our next two stops will be just besides IFEMA, the International Congress Center of Madrid. The first spot is in Campo de las Naciones.

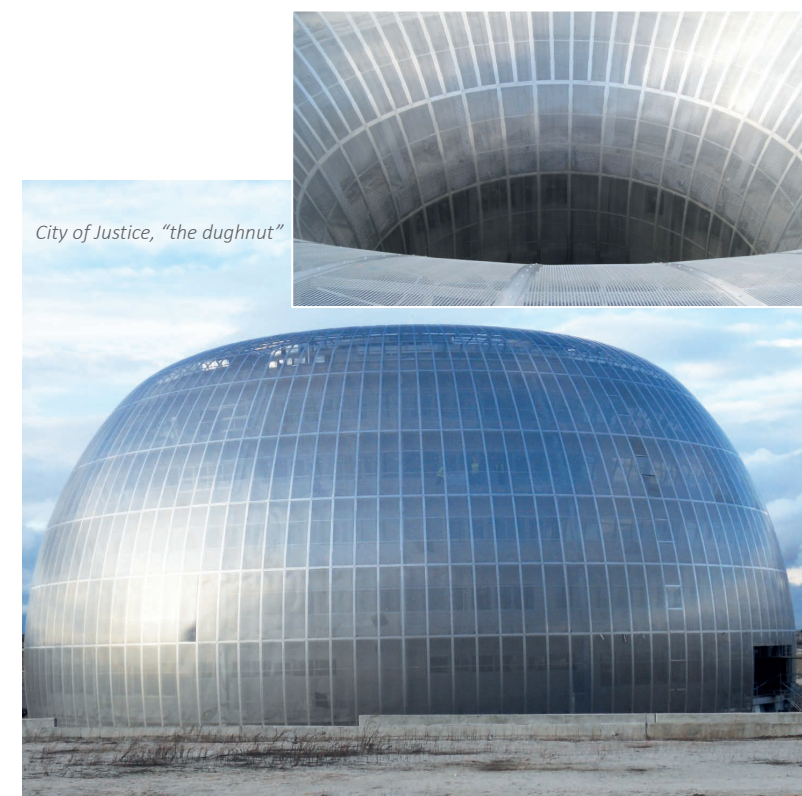
### Sanitas Headquarters

This building opened in 2000. It is an Ortiz Leon design and it has been multiply awarded. All of them due to its high quality architecture, with sustainable purposes from the beginning. It is BREEAM Excellence, thanks to the implementation of numerous resources to minimise energy consumption, and the use of recyclable materials. The

façade is made of stainless steel with different finishes, highlighting the coloured one. Moving forward, and leaving IFEMA behind, we will arrive at the Cristalia business area.



Adolfo Suárez T4 Airport



City of Justice, “the doughnut”



Sanitas Headquarters





**Cristalia IV**

Current headquarters of an insurance company, this project was planned to meet the owner’s requirements of avoiding excesses and maximising the relevance of nature.

It is a cable-stayed structure, with a central support, whose ends are big 25 m cantilevers. These platforms allow landscape to pass through the building and at the same time, they take advantage of the slope for the arrangement of some parts, such as the auditorium.

The façade transmits to the outside the structural design clad with AISI 316 stainless steel . This forceful design was awarded by COAM 2011 to the Architects.

It will be necessary to take our transport to arrive at Las Tablas, where BBVA headquarter is located, our next milestone.

**BBVA City “The Sail”**

Again Herzog & de Meuron’s design, BBVA city. It is the new headquarter of the Spanish bank, motivated by the need to give service to their employees, not only improving the working space quality, but also including sportive facilities, dry cleaner, nursery, etc. The most important determinant of the project was the plot, nearby a highway, and with some pre existing unfinished constructions. It was planned as a city, and aimed to make a sustainable contribution, it is LEED GOLD certificate.

As part of the complex, “the Sail” stands out, with 93 m high, it is the main building. This construction raises with the same shape as the square, similar to an ellipse but with

a more challenging geometry because of its asymmetry. The resistant structure is composed by the central core and post-tensioning concrete shell. Over this shell a covering of AISI 304L, 2B finish, stainless steel is placed. Symbolising the company’s cultural diversity, the three storey buildings have been named as the continents, and the streets joining them, the name of the oceans.

On the way to our last stop of the tour, we discover an urban intervention in one of the main ring roads of the city, the M-30, which in its North area turns into Avenida de la Ilustración.



*Puerta de la Ilustración “Vaguada Arches”*



*Marbella Building (Acerinox Group Headquarter)*

**Puerta de la Ilustración (“Vaguada Arches”)**

This monumental complex is composed of two parallel bodies of 13 stainless steel arches each one, it is a work of Andreu Alfaro, a renowned sculptor from Valencia. It is the joining of the two ends of the M-30 road through the Avenida de la Ilustración. This monument has the nature of the Door of the City or Arch of Triumph. 1300 m of stainless steel tube, grade AISI 304 with 508 mm diameter, were employed.

Unfortunately, this tour is coming to an end. And naturally, the route of the stainless steel architecture in Madrid, has to finish at the Acerinox headquarters. This global Spanish company is a leading manufacturer of stainless steel and high performance alloys.

**Marbella Building (Acerinox Group Headquarter)**

It was built in 1990, and it was designed to be a showroom of the wide variety of possibilities and the potential of this material for architectural purposes. It should show the brightness and strength of the stainless steel and so it does.

The grey and blue colours catch the attention of the observer. We notice strong horizontal strips enclosing the blind deck edges.

All the profiles of the curtain wall are made of stainless steel, and the marked horizontality is broken by two verticals with resistant function, guiding our attention to the main entrance.

The entrance doors are also manufactured with stainless steel profiles, and are framed by a four arches shelter with mirror finish.

Nowadays, it is a reference building showing the durability of this material, keeping its properties, aesthetic and functional ones, as time goes by.



*Cristalia IV*



*BBVA City “The Sail”*

MADRID  
STAINLESS  
AND THE  
CITY

