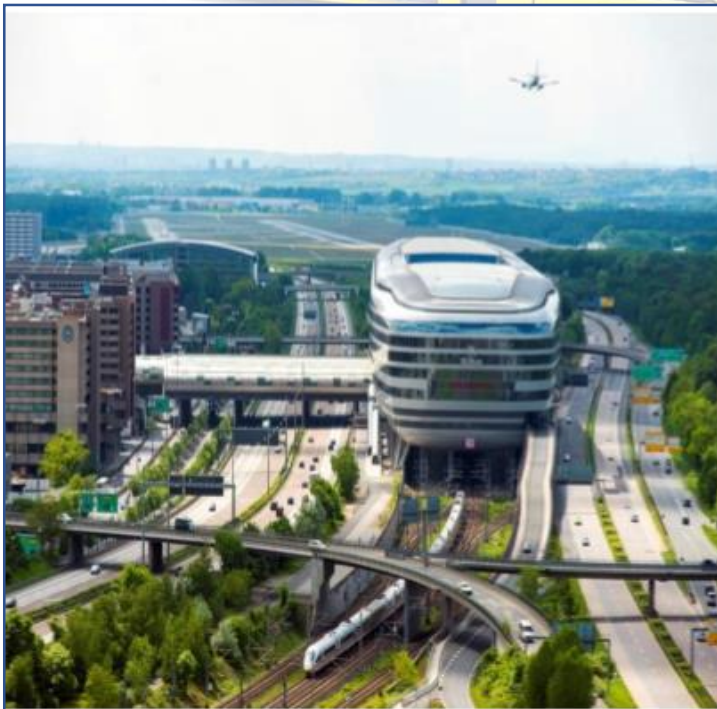


FRANKFURT _ THE SQUAIRE CITY-LINK

Location:

The station is located in the German city of Frankfurt near Frankfurt International Airport, where the station is able to connect and transfer between them and the cross-road bridge linking them.



Components and activities

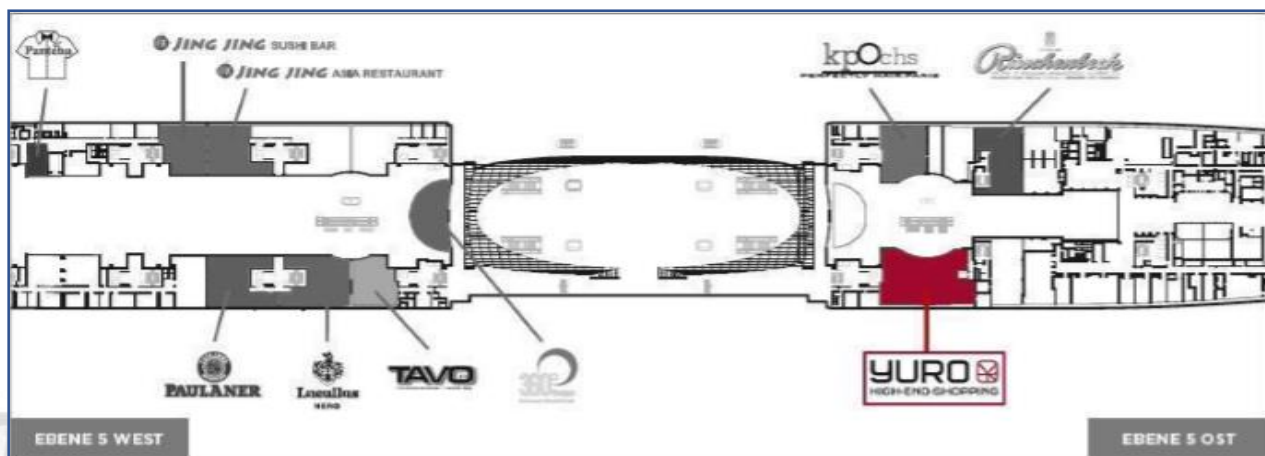
The bridge connects the airport and the station

The ground floor has a metro and tram track

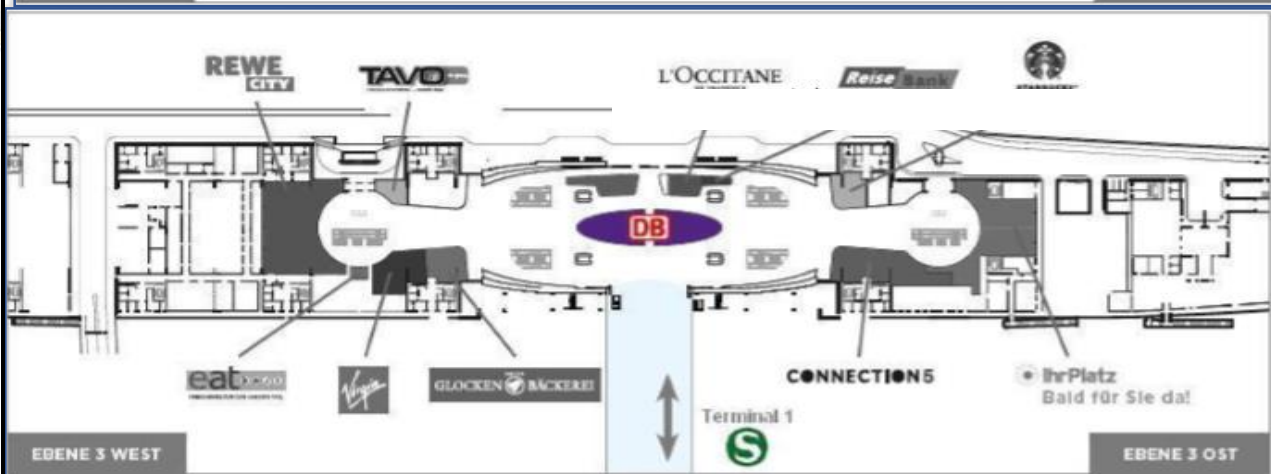
The first floor is the main hall of the station (lobby - ticketing places - other services) and the rest of the spaces are distributed.

The second floor contains shops, entertainment and restaurants, and there is an outlet for the (MINIMONA RAIL).

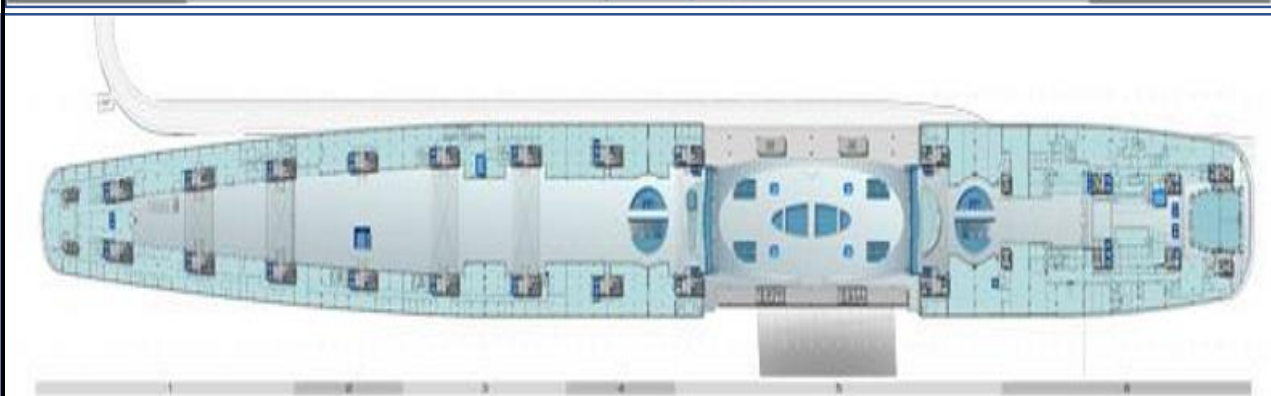
Other floors have motel services, tourist services and restaurants.



GROUND FLOOR PLAN



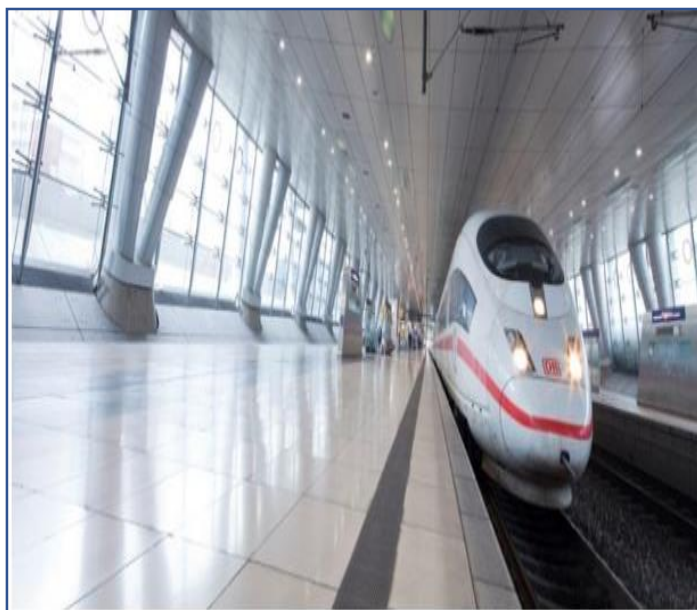
FIRST FLOOR PLAN



SECOND FLOOR PLAN

STUDIES RESULTS

- Good solutions to avoid motor intersections for transport.
- Providing all necessary services for passengers (tourism- Entertainment - commercial)
- Connecting the components of the floor with wide corridors .
- The presence of buildings between the airport and the station, which led to the breach of the bridge to those buildings and increase the length.
- There is no central foyer in the middle resulting in the length of the distance cut horizontally .
- Incompatibility between the length and width of the building, which led to a lack of comfort .



Train station at Lyon airport in France

Location:

The station is located in the French city of Lyon near Lyon International Airport, where the building is linked to the airport by a bridge connecting them and leads to the main hall of the station.

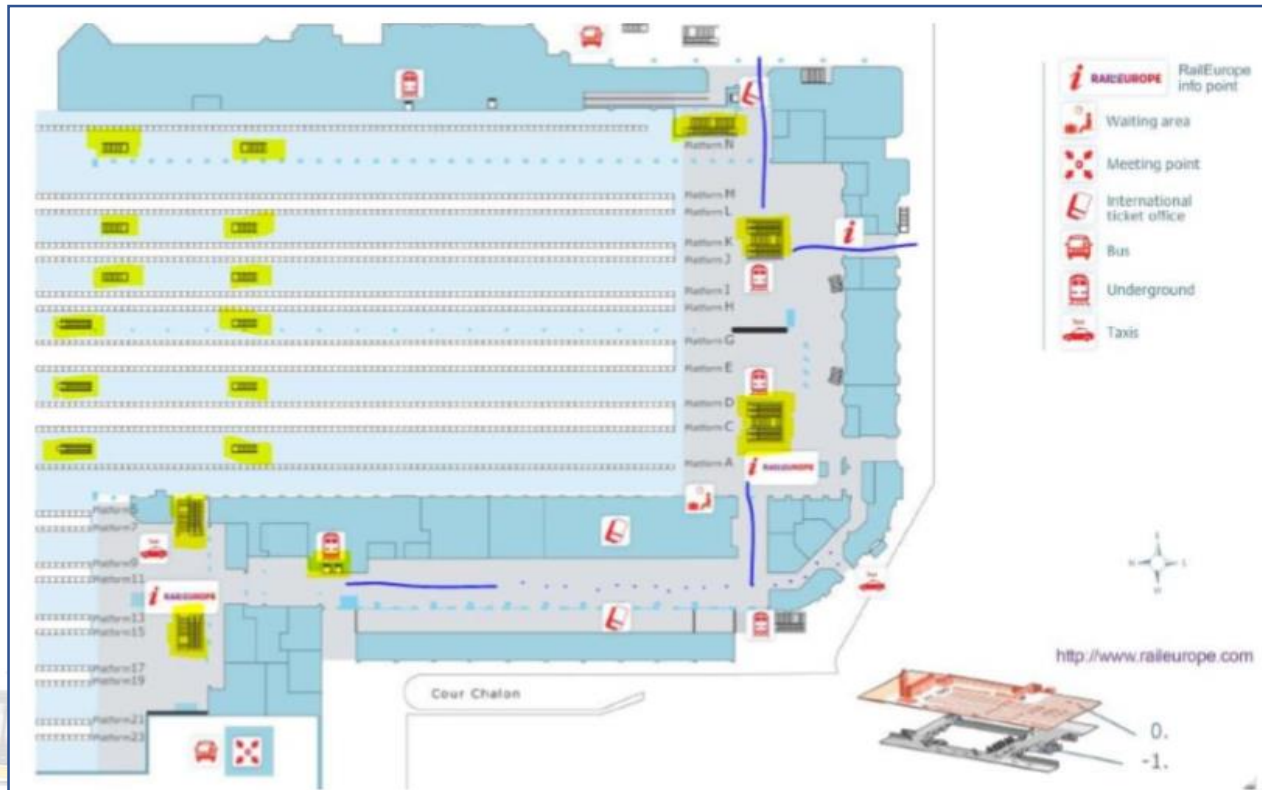
The station designed Calatrava to describe and plan the uses available through the technology. The idea of the station as a place to commemorate the movement and recreate its shape in new form and embellished through sculptures, the station was designed to be attractive and attractive, covering the station with a layer of curved steel to two parts length of 120 m and height of 40 m and became like a bird's beak.



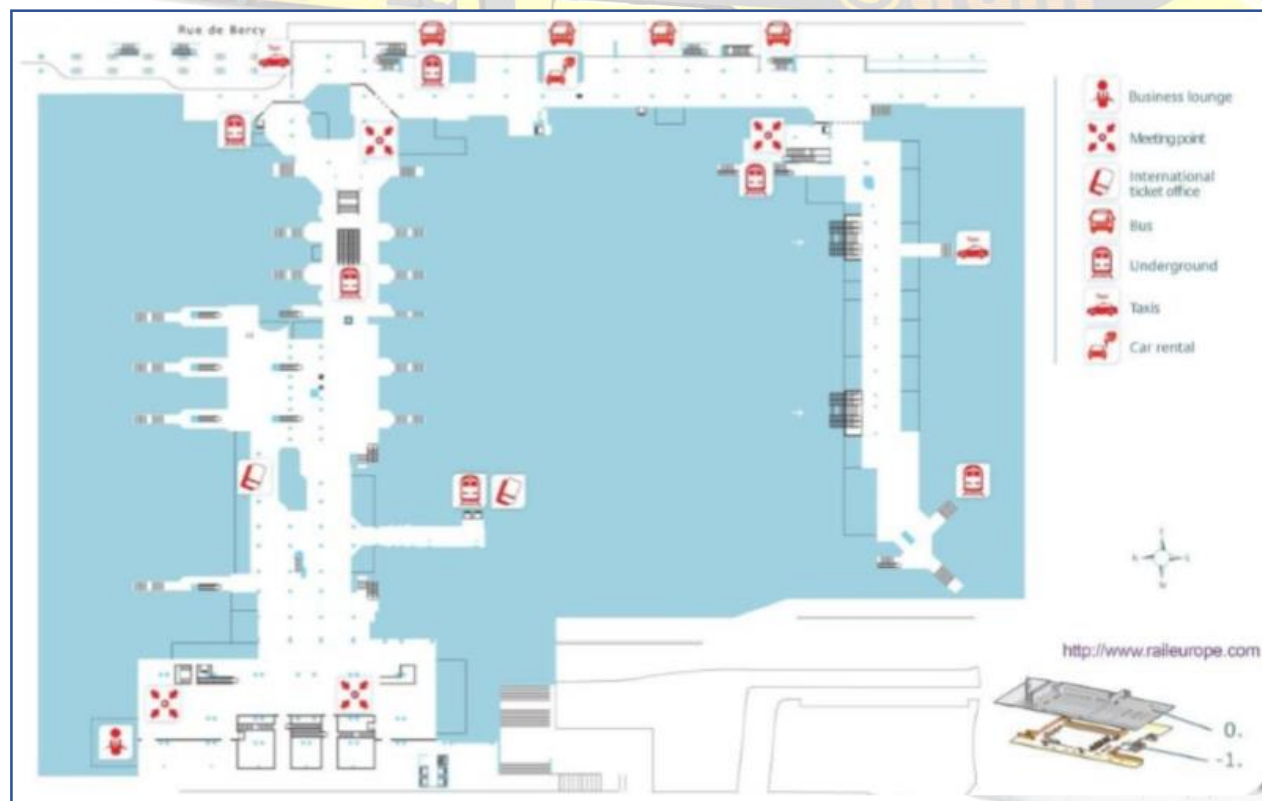
Components and activities

The ground floor has trams, platform and other services.

The first floor includes bus, taxi and commercial services.



GROUND FLOOR PLAN



FIRST FLOOR PLAN

STUDIES RESULTS

There are several lounges with VIP lounges.

The distribution of blanks is appropriate with the function of the building.

Separate transport between train, taxi and bus.

The steel ceiling is suitable with the type of project.

Flow in motion.

The distinctive exterior of the station is like the bird's beak.

Providing commercial and recreational services within the terminal for passenger service.



Graz Main Station Local Transport Hub

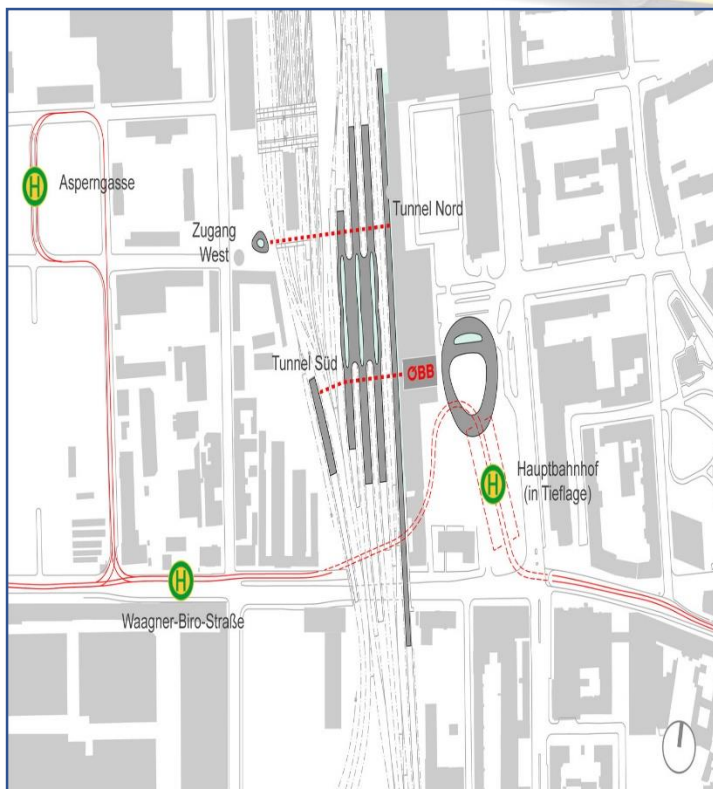
Location:

It is the main tram stop in Graz, the capital of the Austrian state of Styria.

Local transport center in Graz main station the area in front of the station with a new projection roof, called "Golden Eye" has been designed by locals, marking the center of the square. Tram lines have undergone modernization, and now run underground, with all four lines connected directly with the station. Due to the local transport hub which provides international connection, the station will attract about 40,000 passengers.

The Projecting Ring Roof, 'Golden Eye'

The most significant element of the redesign is the covering of the plaza – an oval, ring-shaped disk that provides a ring of shelter to the station concourse and bus stops. The ring roof, called 'Golden Eye' by the locals, creates an 'outer concourse' outside the existing station concourse. Viewed from below, the roof's covering reflects a slightly distorted version of the stripes of the plaza pavement, passengers and vehicles, resembling a movie screen projection of their movements.



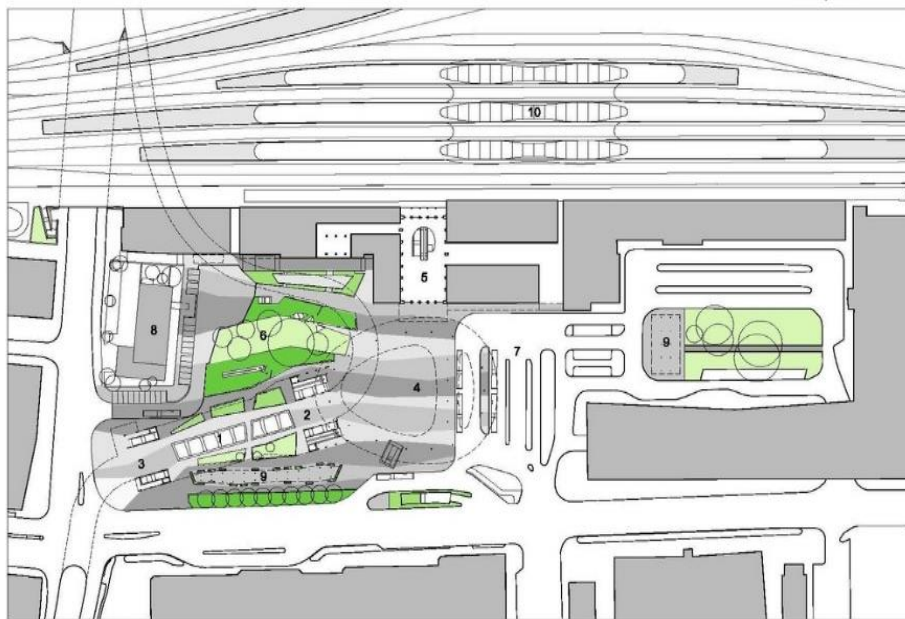


Components and activities

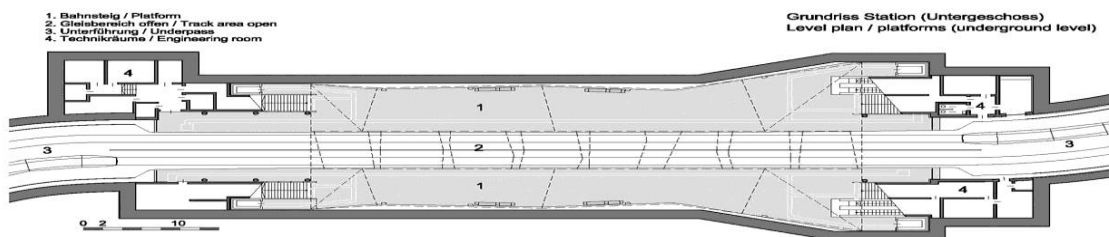
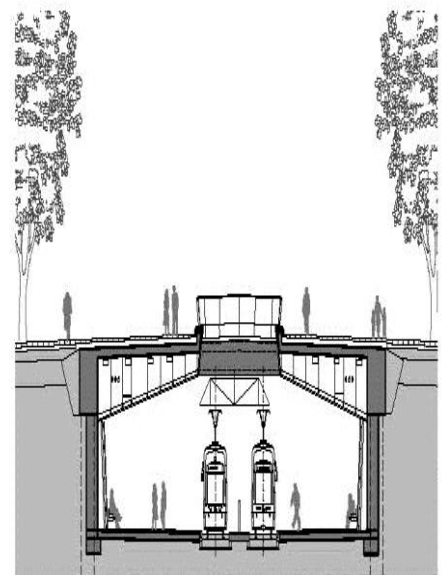
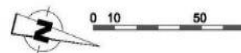
The New Tram Stop at the Main Station

The new double-length stop for the tram lines 1, 3, 6 and 7 is situated underground below the green space at Euro Platz. The stop is open to the sky above the lines, with covered waiting areas. This allows natural light to illuminate the platforms and provides ventilation that, in the event of a fire, is capable of clearing smoke from the station without need of additional systems. Passengers can also see the neighboring hotel and the sky, which helps them to orientate themselves. Escalators and elevators provide disabled access at plaza level.

Lageplan
Site plan



1. Unterirdische Station / Underground station
2. Aufgänge Nord / Exit North
3. Aufgänge Süd / Exit South
4. Bahnhofsvorplatz / Station forecourt
5. Bahnhofshalle / Station hall
6. Park / Park
7. Busbahnhof / Bus terminal
8. Hotel / Hotel
9. Bahnsteige / Platforms
10. Fahrräder / Bicycles

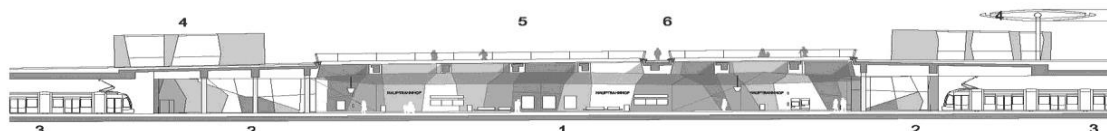


1. Bahnsteig / Platform
2. Gleisbereich offen / Track area open
3. Unterführung / Underpass
4. Technikräume / Engineering room

Grundriss Station (Untergeschoss)
Level plan / platforms (underground level)



1. Bahnsteigbereich / Platform area
2. Aufgänge (Treppen, Fahrtreppen, Aufzüge) / Exit (Staircases, escalators, lifts)
3. Unterführung / Underpass
4. Aufgangseinhausungen / Roofing of exits
5. Deckenöffnungen Station / Floor opening station
6. Brückenverbindung / Bridge



Längsschnitt Station
Longitudinal section station





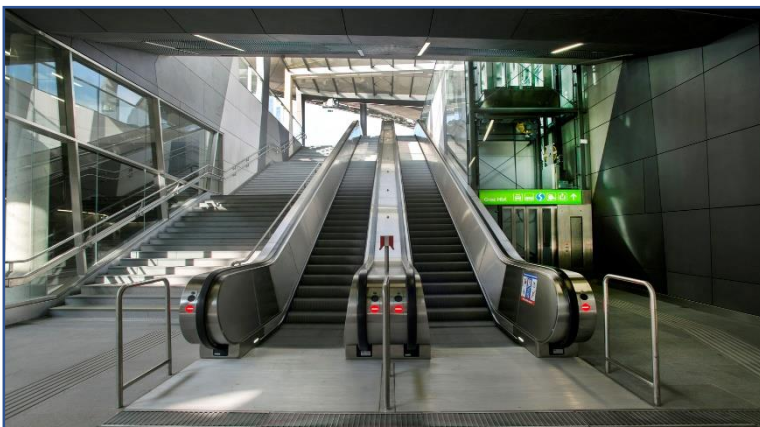
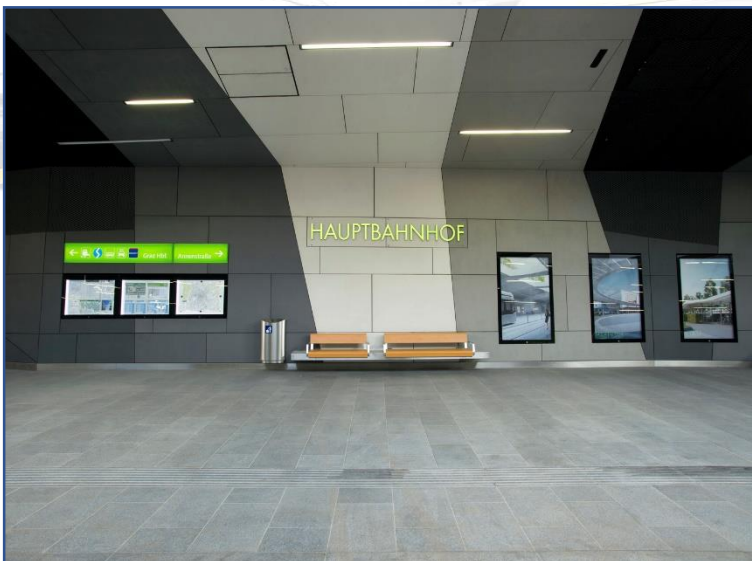
STUDIES RESULTS

The station's stripe pattern extends over the paving of the plaza area, and shades into differently designed green zones. The polygon beds of plants, designed by landscape architects 3zu0, and a rolling lawn topography not only makes relaxing in the station plaza much more visually attractive, but also provides various recreational uses.

Prefabrication on site was used throughout construction. The limited space available at the construction site and short time window available for erecting the structure had also to be taken into consideration. The solution selected was bolting the entire structure together, without on-site welding.

The wall and ceiling surfaces of the station are covered with a stripe pattern of fiber-reinforced concrete panels in three different grey tones. The angled and structured surface makes the station seem to have been 'cut' from the ground, with these cuts extending onto the surface of the plaza.

The construction of the new below-ground stop offered the opportunity of adapting the heterogeneous look of the station plaza and the unsatisfactory layout of routes.



Montesano Station Refurbishment

Location:

Montesano, 80135 Napoli, Italy. Area = 4690 sqm.

the Montesano Regional Railway Station. Dating from 1889, the station opens onto a piazzetta of the same name. As an important fixture in the rail infrastructure of the region, the building serves the Cumana and

Cruciferae lines, the former being celebrated for its impressive seaside vistas. In addition to accommodating these networks, the station is also the low end of a funicular that scales the Naples hillside leading to Sant 'Elmo castle.

Over the years, the station accumulated a number of unfortunate add-ons intended to provide improvised solutions to cope with increasing passenger traffic. Station operators first enlarged the main covered waiting area located on the upper level, and later expanded and enclosed the funicular platform inside a series of strange box-like structures. These additions had a tacked-on appearance that rarely discouraged vandals from leaving their mark. By 1990, the station had fallen into a significant state of disrepair.

A restoration campaign, launched by Ferrous 2 in 2004, sought to overhaul the building. In addition to refurbishing its historical façades, the project involved removing the haphazard additions amassed over time, in view of replacing them with new structures designed to accommodate the building's growing passenger numbers.



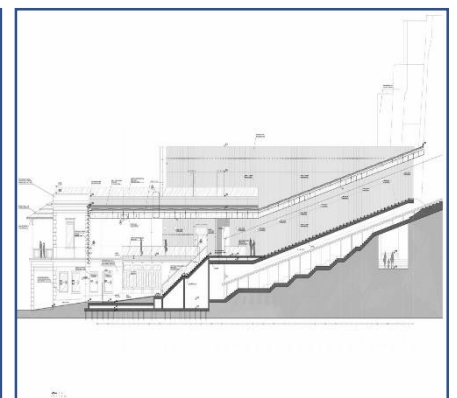
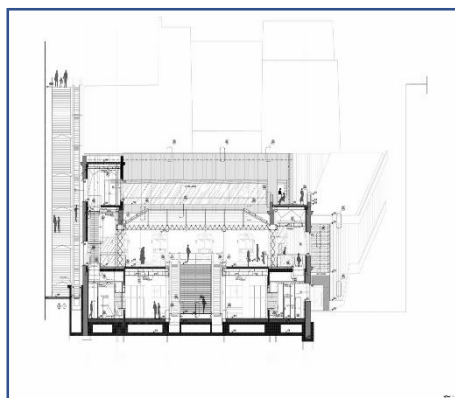
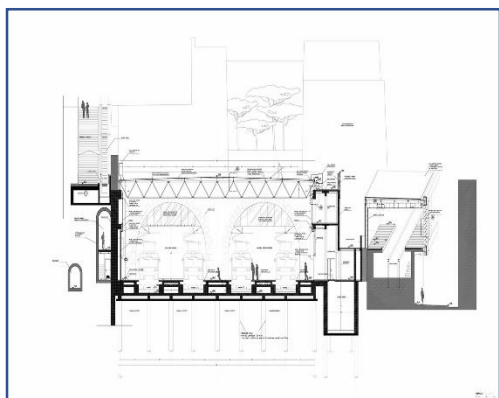
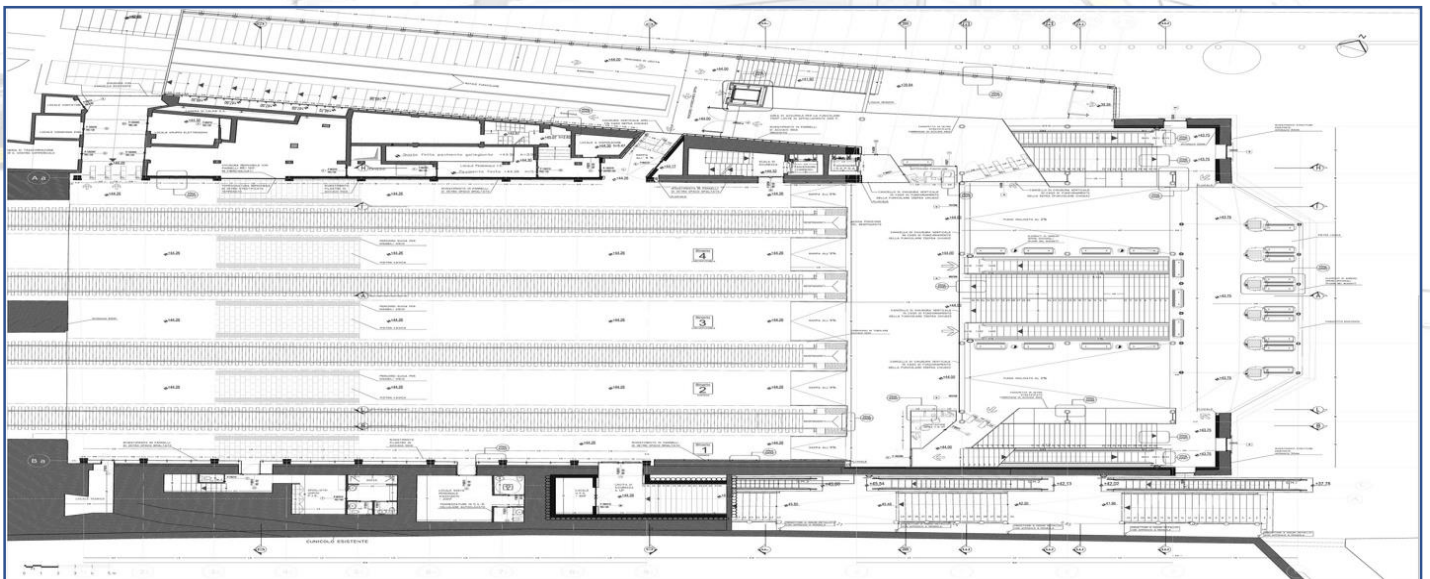


Components and activities

Moving through the entry gates, passengers encounter a spacious street-level passenger hall, which flanks the ticket counters and automated tellers. A small newsstand is located opposite these services. From here, one accesses the upper level platforms and waiting zones via one of two staircases and escalator banks. Located beside the newsstand and ticketing areas, the new circulatory elements ease congestion to the upper level.

On the upper level, passengers await departing trains underneath a metal lattice structure with glazed panels for daylighting. Although covered, the seating area's open-air character allows one to experience the site's unique sensorial attributes... the noises and smells emanating from local market stands; the neon lights pulsating from the nearby storefronts; the vibrations of trains, cars, and pedestrian flows.

The platform zone contains four tracks and five platforms that are under constant surveillance in order to prevent overcrowding. Because of the station's bermed condition, enlarging this zone was impossible. Still, the project redistributes passenger circulation to provide a larger arrivals hall area, formerly a major bottleneck within the building. The platform shed receives ample daylight via glass skylights integrated within a metal trellis system measuring 1,000 m² in surface area.



STUDIES RESULTS

The presence of security and safety systems in the station in addition to organizing the process of unloading passengers

Visual transparency in the station by removing all unnecessary elements inside the center of the building

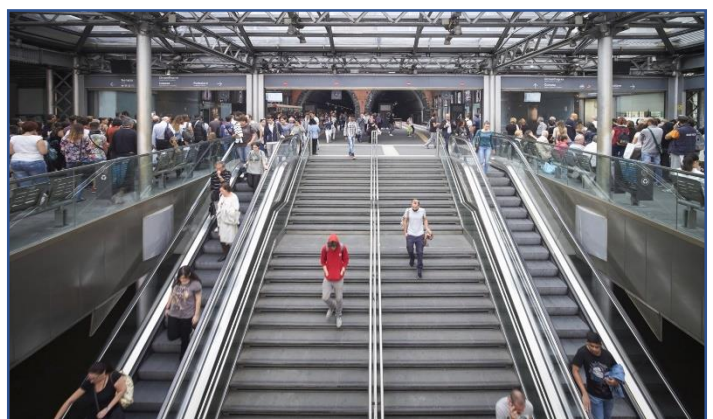
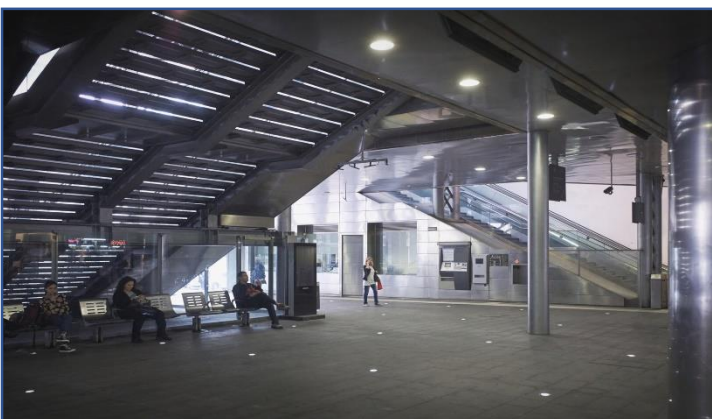
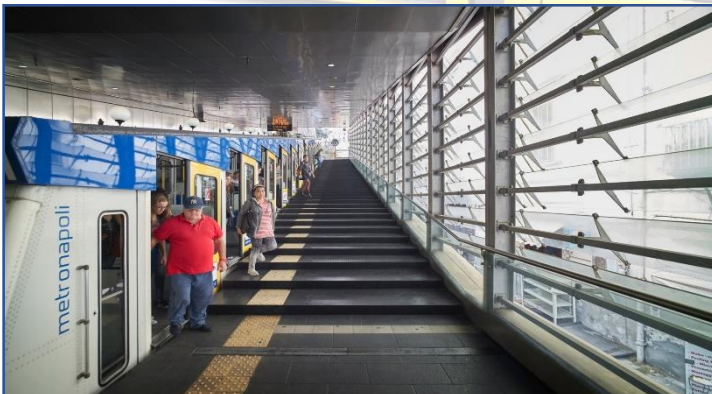
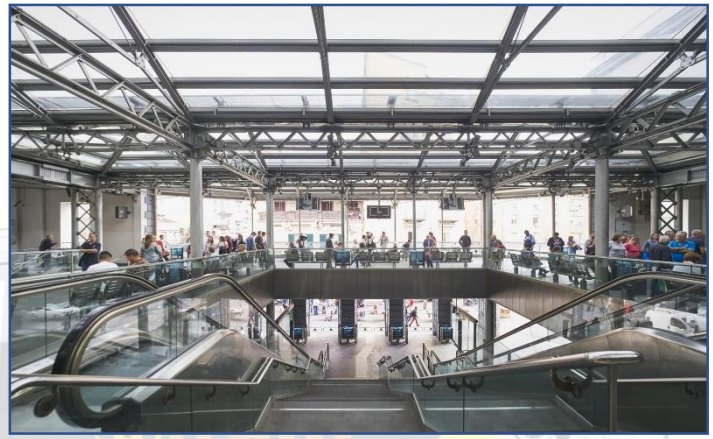
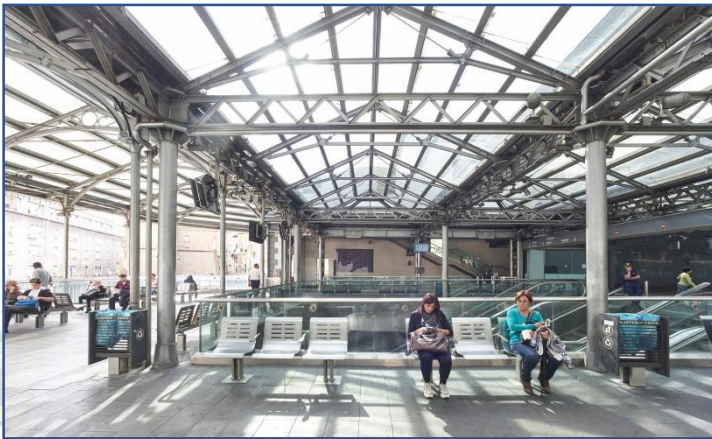
The unique features of the podium are similar to the works of art

The inclusion of technical facilities within the building on the upper floors

The presence of offices and multi-purpose lounge on the upper floors of the station.

The multipurpose gallery affords visitors with views of incoming and departing trams

inclusion of a rooftop restaurant and bar and a more generous street-level bookstore.



Tram stop in Alicante

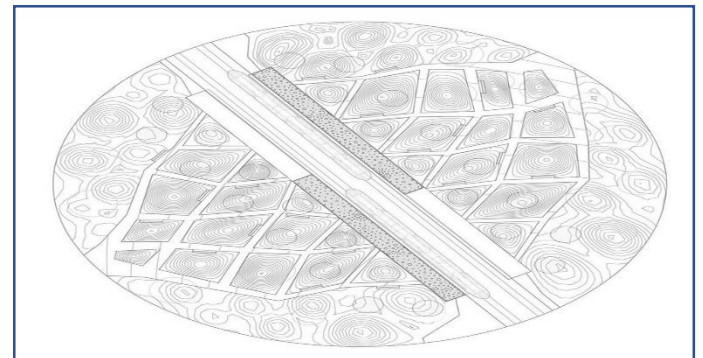
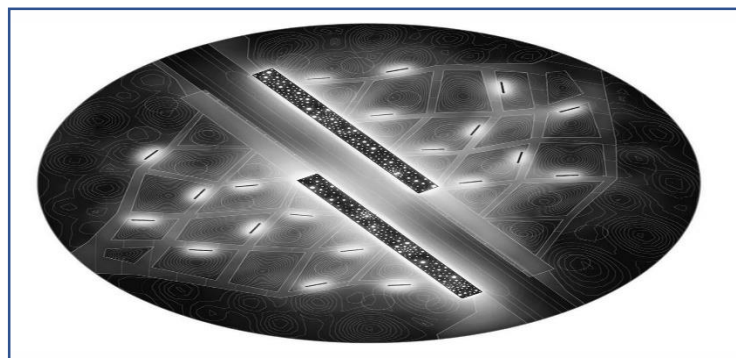
Location:

Glorieta del Deportista Sergio Cardell, Alicante, Valencia, Spain, Area = 5.9 m2.

Building the Tram stop was an opportunity to give back to the city a space that had been taken from it; transform a roundabout in a public square.

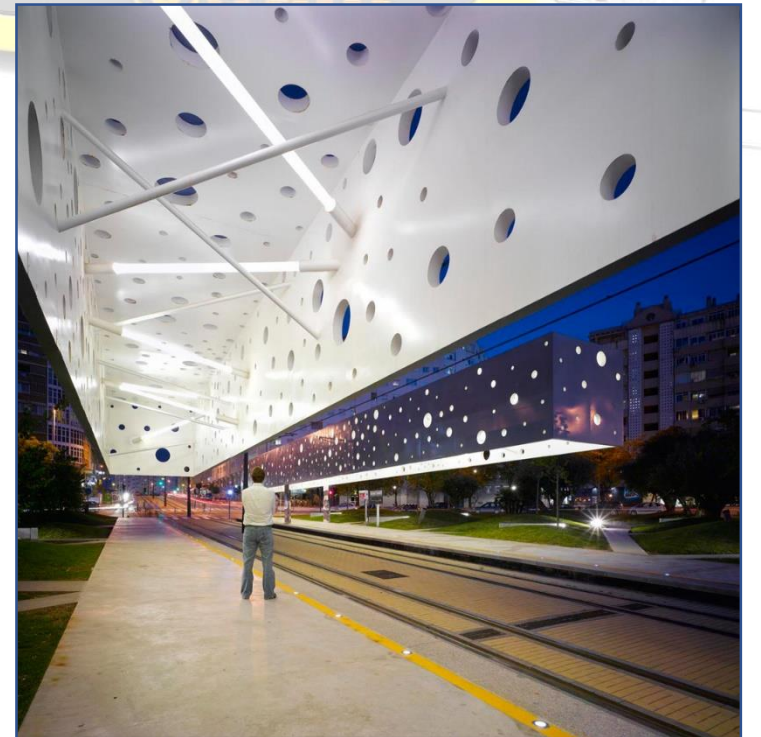
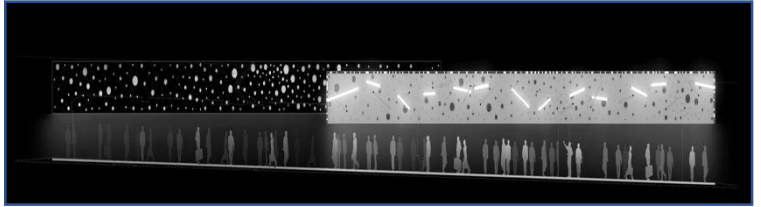
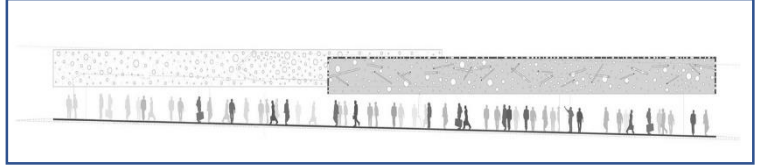
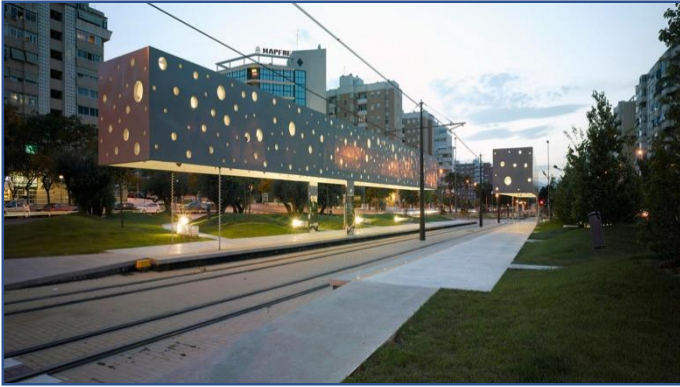
The frontal access to the platforms is reached in 32 possible ways through a fractionated system of paths that get around the existing vegetation. Over them, two hollow boxes, 36 meters long, 3 meters wide and 2.5 meters high, create a floating emptiness slightly above the travelers' heads in a scale closer to the Tram than to the street furniture

There is no distinction between finish and structure, nor between walls and roof. It is an isotropic material in its conception and construction. Eight hundred circular drillings lighten as well as provide resistance against normal strains. Light and air pass through its pores, softening the shade and providing a breeze in the summer months while at the same time offering less resistance against the wind





View of Tram stop in Alicante



train station in Bahri

Location:

A railway station is located in the city of Khartoum in the sea in the industrial zone in the area of the railway in a longitudinal strip.

It is bordered by Salvation Street in the west, a two-way street with a width of 30 meters and a Bahri Industries Street with a width of 20 meters on the south side, bordered to the east and northeast by factories and workshops.

A railway station was established at the beginning of the century but soon began to collapse, and then the Dar Consulting Company developed a design for the plant was implemented and opened and began to work in October of 1998



Components and activities

The current train station consists of two main parts: (freight station - passenger station)

Current Passenger Terminal:

Ground floor: (departure and arrival lounge 2 ticket counters, men's chapel) The southern section of the ground floor is a pay for Bank of Khartoum.

1st, 2nd and 3rd floors: (free market (not working), rented offices for travel agencies and companies, administration).

Visitors: Passengers - Departure Passengers - Visitors - train Khartoum Atbara The number of passengers is 300 passengers

Train Khartoum Nyala every 3 days 1200 passengers.

Train goods daily.

Staff: Information Officer - Ticketing Officer - Security Officer - Accountants.

Workers: cleaners - cafeteria workers - courier workers - porters.

Components of the arrival and departure hall:

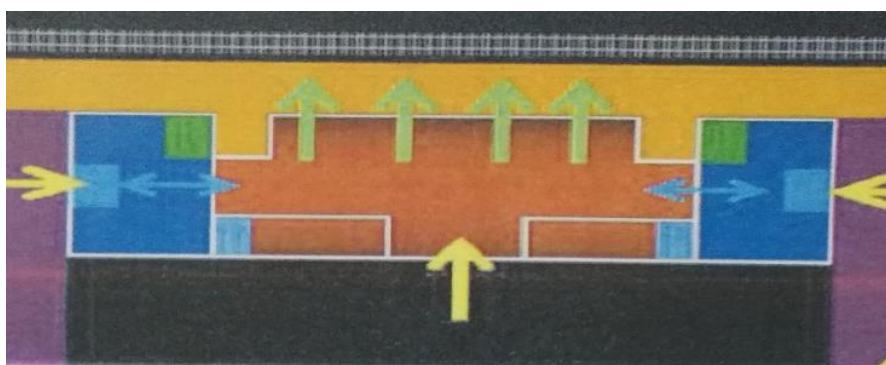
Reception - cafeteria - free market - toilets - ticket offices - chapel - sitting places police office.










Building Authority:

It consists of two towers, one north and the other south, between them the arrival and departure hall. The 500 square meter tower consists of three floors. The floor consists of three apartments, designed as a station motel. Now, these floors have been leased to companies, banks and travel agencies.

Construction:

The main hall is a 7-meter reinforced concrete structure, the roof of the hall is made of zinc, ceramic floors, reinforced concrete towers, red brick walls, concrete slab ceiling.



KEY PLAN	
Entrance	
Entry from hall to offices	
Exit from hall to platform	
Departure and Arrivals hall	
Platform	
Vertical circulation	
Parking area	
Offices	
Toilets	



STUDIES RESULTS

- There are two train entrances to the north and south of the station. There are three car entrances on the western side, on the side of each entrance are pedestrian cars and information books.
- There is a sidewalk along the station from the east with chairs for seating, characterized by a wide width of 6 meters, and is intended for passengers and goods by design (passenger trains are currently parked).
- The presence of a passenger lounge in the middle between two towers facilitates the management process.
- The presence of parking lots for management and customers.
- Although the building is oriented east-west, there is a square between the tower and the hall and the other tower helped in the process of ventilation and natural lighting.
- One passenger lounge is not sufficient in the case of passengers who are arriving and departing in one time.
- There are intersections between passenger and train traffic
- There is no stale store
- Lack of green spaces.
- There is no break for workers and passengers.

