

An aerial, isometric view of a city grid. A large, stylized blue outline of a building or complex structure is superimposed over the city, with various rectangular and curved shapes. The background is a light gray, and the overall tone is professional and architectural.

architecture
industrial plants
infrastructures
environmental studies
and landscape

ERREGI



INTEGRATED ENGINEERING AND ARCHITECTURE SERVICES

ERREGI PRESENTATION

ERREGI was founded in 1986. The company deals with **engineering, architectural and urban planning** and is specialised in the integrated planning of road, rail, airport and metropolitan infrastructures.

Managing complex, multidisciplinary projects is a skill which ERREGI has always excelled in.

The ambition is to compete with the best in single disciplines.

An integral part of ERREGI's mission includes **experimental research and innovation** with regard to project planning and management as a whole, as well as the content specifics of each individual project.

The nerve centre of these activities is the **"Project Innovation"** division which has developed over the years and which is currently involved in several areas of research which can be grouped as follows:

- 3D Reconstruction and **monitoring** of the project with "Virtual Reality"
- Use of technological systems in order to maximize **energy saving**
- **Technological** and **material** innovation
- Implementation of **security** monitoring systems
- Project **communication** through various means.

ERREGI uses sophisticated project planning **software** to produce architectural and structural simulation models. Innovative technology is used to represent the organisms and systems developed in Virtual Reality, making it possible to navigate freely both inside and outside the models.

ERREGI's Quality Control Manager is responsible for **monitoring** the definition and implementation of in-company procedures in accordance with current quality related norms and regulations.

ERREGI ensures that every aspect of the services it offers is performed under controlled conditions, can be reproduced and and complies with UNI EN ISO 9001:2008 **certification** standards.

BUSINESS



PUBLIC ADMINISTRATION

CONSTRUCTION COMPANY

PRIVATE CORPORATION

PRESENCE



- 1 Rome_Italy
- 2 Rome_Italy
- 3 Hangzhou_China
- 4 Guanzhi_China
- 5 Beijing_China
- 6 Riyadh_Saudi Arabia
- 7 Striano(NA)_Italy
- 8 Kuwait
- 9 Qatar
- 10 Rome_Italy
- 11 Angola
- 12 Kuwait
- 13 Bulgaria
- 14 Rome_Italy
- 15 Rome_Italy
- 16 Venezuela
- 17 Rome_Italy
- 18 Rome_Italy
- 19 Olbia_Italy
- 20 Saudi Arabia

- 21 Algeria
- 22 Algeria
- 23 TorreValdaliga(RM)_Italy
- 24 Santa Marinella_Italy
- 25 Solignano(PR)_Italy
- 26 Forlimpopoli(FC)_Italy
- 27 Pantelleria(TR)_Italy
- 28 Venezuela
- 29 Bogliasco(GE)_Italy
- 30 Milano-Verona_Italy
- 31 TorreinPietra(RM)_Italy
- 32 Palermo_Italy
- 33 Genova_Italy
- 34 Verona_Italy
- 35 Venice_Italy
- 36 Naples_Italy
- 37 Meolo (VE)_Italy
- 38 Corinth_Greece

Architectural design of Anagnina multifunctional center
Architectural design of Montemario multifunctional center
International competition of urban and architectural design
International competition of architectural interior design
Erregi office architectural interior design
School design and interior design
International competition of Vesuvio est Station
Engineering activity of "Heavy Aromatics Storage & Export"
QAFCO 5 multidisciplinary engineering activity
A and B Termini metro Node
"New oil and storage facilities, booster station and Jety, pipeline facilities" multidisciplinary engineering activity
ARO multidisciplinary Engineering activity
Plovdiv- Svilengrad railway
Parking under the Pincio terrace
First phase of the Rome Tiburtina railway project
El Palito- La Encrucijada railway and railway stations
Malatesta, Lodi and San Giovanni Metro C stations
"Centro Carni" tram depot
New terminal for the General Aviation of the Olbia's airport
Engineering activity in NGL plant and Gas Treatment and Compression project
Engineering activity in "Boosting Hassi R'mel" project
Engineering activity in "TFT ET EXPANSION DU GASODUCS"
Engineering activity of the Centrale di Torrevaldaliga Nord
Pisa- Rome railway acoustic rehabilitation
Rome- La Spezia railway line redoubling
Railway for the yard on the Bologna- Rimini line
Pantelleria's airport expansion and renovation
El Palito- La Encrucijada railway definitive project
Genoa- Pisa definitive preliminary project street change order
Hydraulic work design for the high speed trade line
Study of the beltway for Rome metropolitan area
Palermo tram system definitive design
"Colombo e San Tommaso" tunnels' definitive design
Verona Q.E. Intermodal terminal's expansion project
Connection railway line at Lubiana-Venice airport
Dynamic multifunctional plant of Napoli S.mistamento
Venice- Trieste railway study of feasibility
New treatment plant of "Mild hydrocracker and polishing unit" production.

- 39 Qatar
- 40 Bologna_Italy
- 41 Abu-Dhabi_United Arab Emirates
- 42 Voltri(GE)_Italy
- 43 Turin_Italy
- 44 Bologna_Italy
- 45 Messina_Italy
- 46 Qatar
- 47 SanNazzaro(BV)_Italy
- 48 Venezuela
- 49 Rome_Italy
- 50 Priolo(CL)_Italy
- 51 TorreValdaliga(RM)_Italy
- 52 Reggio Emilia_Italy
- 53 Reggio Emilia_Italy
- 54 Rome_Italy

- 55 Rome_Italy
- 56 Naples_Italy
- 57 Rome_Italy
- 58 Bahla Blanca_ Argentina
- 59 Rome
- 60 Rome
- 61 Serbia
- 62 Sulymaniya Kurdistan
- 63 Saudi Arabia
- 64 Roma
- 65 Erbil_ Kurdistan
- 66 Riyadh_ Saudi Arabia
- 67 Venice_Italy
- 68 Catania_Italy
- 69 Calabria_Italy
- 70 Sardinia_Italy
- 71 Riyadh_ Saudi Arabia

New plant for gas and fluid treatment
Interventions on the Bologna-Portomaggiore railway line
Intervention on a new plant for the oil refinery
Voltri- Brignole railway line preliminary project
Turin-Lione railway line preliminary project
Bologna Central Station
Road and railway links for Messina Strait
Civil works for ARAMCO QUATIF propane plant
Civil works for the construction of Sannazzo's station
Engineering Activities
Rome San Lorenzo station plan definitive project
Detailed design and Revamping of "Priolo Gargallo" Station
"Revamping" of La Casella thermoelectric station
Reggio Emilia lot Milan-Bologna railway line
Design of the Reggio Emilia station
Design of the Gardenie, Mirti, Alessandrino, San Giovanni, Lodi, Pigneto and Malatesta Metro C station line
Ring Road's redoubling at Flaminia-Salaria interchange
Project for the new Afragola station
Project for the Tor Vergata station on the Rome- Naples line
Ammonia system detailed design
Executive project of the Change order of the Sorting Plan
Extension of the metro line B Piazza Bologna - Conca d'Oro
Road and railway project at Guastice Interport
Gilje-Cupria-Paracin Railway
Light Rail Transit
CTW400 Railway Project
Roma - Viterbo doubling railway
Light Rail Transit Line 5
Princess Nora Bint AbdulrahmanUniversity - People Mover
Port of Venice Multimodal terminal
Catania-Ognina Railway upgrading
Crosia-Longobucco Road Project - Lot 2
Sassari-Olbia Road, Lot 3 and Lot 8
Riyadh Metro Line 3

Virtual Reality

It is intended the electronically interactive and simultaneous representation of a real or fantastic world where the user has the idea (the feeling) of becoming part of it.

Energy Efficiency

Erregi has set as a target the renovation of the design process to introduce in its own work the use of renewable energy sources and Rationalising the use of energy and strategies aimed to reduce energy consumption.

New Materials

The choice of technologies, materials and construction methods to produce new facilities for the public offers good opportunities for reduction of both energy consumption and emission of pollutants.

Security Monitoring

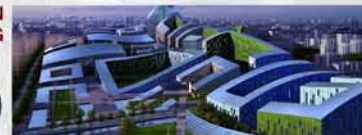
Innovative technologies can be used to prevent criminal events and terrorist attacks or give alarm on time while complying with all the regulations in term of privacy of citizens.

Communication

ERREGI has used several tools to promote the communications aspects, taking into account that they constitute proper "quality procedures" for the final product - the multidisciplinary design.



URBAN PLANING



SUSTAINABLE TECNOLOGY



ARCHITECTURE AND LANDSCAPE



SUPPLY NETWORK AND WASTE DISPOSAL



INTERIOR DESIGN

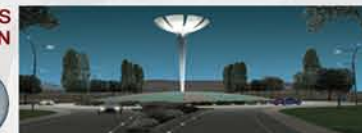


MULTIDISCIPLINARITY

INDUSTRIAL PLANTS



PRODUCT AND PROCESS INNOVATION



STRUCTURE AND GEOTECHNICAL



TRANSPORT INFRASTRUCTURES



PROJECT CONTROL



MAIN PROJECTS



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ZULFI RAILWAY PASSENGER STATION

Infrastructural, Architectural, Structural and Equipment design in JV with ITALFERR S.p.A. Client: AL-MOBTY & Al-Bawani JV, Riyadh Province - Saudi Arabia 2017. (Fig. 16)

RESIDENTIAL COMPLEX IN CHINA

Concept architectural design. Client: Private, China 2016. (Fig. 15)

3JI STATION - RIYADH METRO LINE 3

Structural detailed design. Client: CWG, Riyadh - Arabia Saudita 2016 - under construction.

TRAMWAY COSENZA - RENDE

Architectural, Infrastructural, Structural and Equipment detailed design. Client: CMC, Cosenza - Italy 2016 - in progress.

TAMBO SPRINGS INTERMODAL TERMINAL

Preliminary and infrastructural railway design, civil works, equipment design. Client: ITALFERR S.p.A., South Africa 2016. (Fig. 14)

THE SAUDI LANDBRIDGE RAILWAY PROJECT

Preliminary and definitive infrastructural railway design, civil works, interferences study Client: ITALFERR S.p.A., Saudi Arabia 2015-2016.

FIUMICINO INTERNATIONAL AIRPORT-TERMINAL "E" EXPANSION AND REVAMPING

Detailed Architectural Structural and Equipment design. Client: ADR, Italy 2015.

RIYADH METRO LINE 3

Structural and Architectural shop drawings. Client: CWG, Riyadh - Arabia Saudita 2014 - under construction.

DEFINITIVE AND EXECUTIVE PROJECT OF THE FOURTH LOT OF THE ROAD AXIS CROSA-LONGBUCCO-SILA

Executive design of Viario Mirto-Cropalati- Longobucco-Sila - IV section. Client: Consortium Stable ECIT. - Longobucco (CS) - Italy 2014 - under construction.

SASSARI - OLBIA ROAD PROJECT LOT 3

Final design: Design of road layouts, junctions and implementation phases, bridges, culverts and underpasses and flyovers, and hydraulic systems. Client: Anas S.p.A., Sardinia-Italy 2014-under construction. (Fig. 13)

LIGHT RAIL TRANSIT RING LINE 5 ERBIL

Preliminary architectural, structural and infrastructural design. Client: Kurdistan Regional Government - Erbil, Iraq 2014-2015. (Fig. 12)

SASSARI - OLBIA ROAD PROJECT LOT 8

Transport infrastructural and equipment final design. Client: Anas S.p.A., Sardinia - Italy 2013-2016.

PONTE DEI CONGRESSI - NEW BRIDGE OVER THE TIBER RIVER

Preliminary infrastructural, structural and architectural design. Client: Risorse per Roma S.p.A, Rome - Italy 2013.



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14



13

SANGRITANA RAILWAY LINE

Executive and detailed project of 3.9 km of new railway line for the unification of the RFI and FAS stations in the municipality of Castel di Sangro, deviations and re-accommodation road changes, artificial tunnels and interventions on the buildings of the existing station. Client: SALCEF / Sangritana Adriatic Railway - Italy 2011-2017.

LIGHT RAIL TRANSIT SYSTEM SULAYMANIYAH

Concept, preliminary architectural, structural and equipment detailed design. Client: Kurdistan Regional Government - Sulaymaniyah, Iraq 2011-2014. (Fig. 11)

NEW RAILWAY SYSTEM IN THE PORT OF VENICE AND LINE CONNECTION TO THE NETWORK

Preliminary and definitive project of the rail network, interferences of the airport, the goods bundle, the connections with the national rail network, and the design of interference routes. (In ATI with Favero and Milan) Client: Port Authority of Venice - Italy 2011.

HYDRAULIC DESIGN CTW 400

480Km hydraulic design of the railway line joining Riyadh International King Khalid Airport with Az Zabirah junction: Execution hydraulic design cuts and bridges design as well as solutions for defending the detected. Client: AL AYUNI - Saudi Arabia 2010-2011.

XIAOSHAN DISTRICT MASTERPLAN HANGZHOU

urban and concept architectural design in collaboration with ECADI. Client: HANGZHOU MUNICIPALITY - Hangzhou, China 2010. (Fig. 10)

VESUVIO EST RAILWAY STATION

International Design Competition. Client: RFI - Italian Railway Network - Italy 2009. (Fig. 09)

AL TOUFOULA CHILDHOOD CENTRES RIYADH

Detailed Structural - Architectonical and Interior design of 6 schools in Riyadh. Client: Al ayuni Contracting Co, Saudi Arabia - 2009. (Fig. 08)

ROME - VITERBO RAILWAY LINE

Final Project. Design of 20 km of railway doubling for 5 stations with related installations, works of art and road deviations. Client: AREMOL (in ATI with Italconsult Spa) - Italy 2009-2014.

EXECUTIVE DESIGN FOR RAILWAY CATANIA-OGNINA

Implementation of the doubling of the RFI Catania-Ognina railway line infrastructure adaptation for 4 stations. The project concerned the alignment of the tunnel and of a bypass inside it. Client: CSI-Consortium Stable Infrastructure - Italy 2009-2012.

PRINCESS NORA BINT ABDULRAHMAN UNIVERSITY - PEOPLE MOVER

Detailed design and Equipment. Client: Frassinetti Saudi Arabia - Saudi Arabia 2009-2011. (Fig. 07)

TORRE SPACCATA

Structural and architectural detailed design of Torre Spaccata Underground Station. Client: METRO C s.p.a - Italy 2008 Client: ATAC - Italy 2008.

PROJECT TERMINI RAILWAY STATION

Description Design Executive of Work For Adjustment of Terms Metro Node "A" - Metro "B" - Client: ROMA METROPOLITANE - Italy 2008-2013 (Fig. 06)

RAILWAY LINE PLOVIDIV - SVILENGRAD

layout, parvomai-svilengard (Bulgaria). Concept, scheme and detailed design. Client: Astaldi s.p.a. - Bulgaria 2008 Underground.

MULTI-LEVEL PARKING LOT "PINCIO"

Rome - Piazza Napoleone I. (in ATI with SAC) Architectural, Structural detailed design, construction management. Client: ATAC - Italy 2007

CONSTRUCTION PLANNING FOR CIVIL WORKS OF T7

Overall design of T4 and T5. (Rome Underground new Line C). 3D virtual simulation of Malatesta Station - Structural and architectural detailed design of Malatesta and Pigneto Stations. Client: METRO C s.p.a - Italy 2007.

"PORTA EST" URBAN MASTERPLAN EAST COAST OF SALERNO

International contest - 2° prize (in A.T.I. with Centola & Associati and Proap) Client: Municipality of Salerno Italy - 2007

OLBIA AIRPORT

Architectural, Structural and utilities concept, scheme, detailed design and construction management. Clients: GEASAR (in A.T.I. with the architects D. Lefort and F. Vinditti) - Italy 2006-2007. (Fig. 05)

ATAC TRAM MARSHALLING SITE

In Via Palmiro Togliatti. Scheme and detailed design of offices, garage/workshop, yard and connection to the network. 3D virtual simulation. Client: ATAC - Italy - 2006.

ROME UNDERGROUND LINE "D"

Concept and Architectural design of stations: "Piazza Fiume, Piazza Fermi, Adriatico, Talenti - Design of marshalling sites "Nuovo Salario and Ojetti". Alignment study. Clients: IMPREGILO and ASTALDI - Italy 2006. (Fig. 04)

ROME UNDERGROUND LINE C MALATESTA INNOVATIVE STATION

Concept design, architectural and structural detailed design and special equipment. Client: Metro C S.p.A., Rome - Italy 2005-2015. (Fig. 03)

ACOUSTIC ANALYSIS AND MODELLING by mean of noise simulations of the noise level on the ROME - PISA RAILWAY LINE in correspondence of the town of Santa Marinella. Scheme design for renovation. Client: RFI - Italy 2005/2006

LINEA FERROVIARIA PARMA - LA SPEZIA

Progetto esecutivo delle opere ferroviarie, compresa la stazione di Osteriazza e della viabilità. Studio delle fasi esecutive in soggezione di esercizio. (in ATI con PROGIN e Studio BALDINI). Client: ITALFERR/ASTALDI - Italia 2005



12



11



10



09

MAIN PROJECTS



08

AIRPORT OF PANTELLERIA

Structural, architectural and utilities scheme and detailed design of the new terminal building and environmental impact study. 3D virtual simulation.
Client: ENAC - Italy 2004/2007. (Fig. 02)

NEW RING ROAD IN ROME

feasibility study for the realization of a bypass system of the metropolitan area of Rome. Concept study of the Fiano-Torre in Pietra connection.
Client: ASTRAL Strade Lazio - Italy 2004

NEW RAILWAY CONNECTION VENICE-TRIESTE-LUBIANA

Feasibility study, insertion of Mestre junction of ITF within the project. Railway link with the airport of Venice. Client: ITALFERR - Italy 2004

TRAMWAY IN PALERMO

scheme design of Line 3 of the Palermo Tramway and the Roccelle Garaget. Environmental impact study and health and safety plan.
Client: AMAT S.p.A. Italy 2004

RAILWAY STATIONS AND OPERATING FACILITIES

on the El Palito-La Encrucijada railway line (Venezuela). Scheme and detailed design of 9 stations, 2 intermodal junctions and 2 marshalling sites. Alignment and trackbed scheme design for 120 Km of line. Client: ITALFERR (in ATI with TECNIC e TECHNIP) - Venezuela 2003/2006.

BOLOGNA - PORTOMAGGIORE RAILWAY LINE

Concept, scheme and detailed design of structures on the Bologna - Portomaggiore Railway Line. Design of waiting areas at Via Libia and Via delle Rimesse. Design of waiting areas at Via Larga, station of Budrio. Client: Railroads Emilia Romagna (in ATI with Metropolitana Milanese, S.T.E.P. Professor Engineer Vitaliani, COGEO) Italy 2003

STUDY OF TRANSPORT AND SERVICES FOR THE AIRPORT OF FIUMICINO

Scheme design of road network and public parking system for the urbanization of the Piana Bella area. Client: ALITALIA - Italy 2003.

MULTILEVEL UNDERGROUND PARKING IN THE CENTRAL STATION OF BOLOGNA AND LANDFILL CUT AND COVER TUNNEL IN VIA PIETRA MELLARA

Architectural, structural and utilities scheme design for buildings, design of urban environment renovation. Client: GRANDI STAZIONI/DAM - Italy 2002/2003.

TURIN-LYON RAILWAY LINE

concept design for project financing (legge obiettivo), including technological utilities. Design of most of 40 km, half of which in tunnel, including the link between the new international line and the existing line. Client: ITALFERR - Italy 2002

VOLTRI-BRIGNOLE RAILWAY LINE

Concept design for project financing (legge obiettivo) including technological utilities, whose most difficult part was the strengthening a modification of the existing Voltri yard without interfering with the normal operation of the line. For this purpose 8 successive phases have been studied. Client: ITALFERR - Italy 2002



07



06



05

MESSINA BRIDGE

Road and railway connections to the bridge. Concept and scheme design. Design of the administrative area, the commercial facilities and museum on the Calabrian side.
Client: Strait Of Messina - Italy 2002/2004. (Fig. 01)

REGGIO EMILIA RAILWAY STATION

Link to Bologna Milan High Capacity railway line. Architectural, structural and utilities design of the Station and intermodal junction. Client: Rodano Scarl - Italy 2001/2005.

ROME UNDERGROUND LINE C LAYOUT OF T4 AND T5

Architectural scheme design of the following stations: Gardenie, Mirti and Alessandrino. St. Giovanni, Lodi, Pigento and Malatesta. 3D virtual simulation.
Client: STA - Municipality of Rome - Italy 2001.

RAILWAY YARD IN ROME SAN LORENZO STATION

Scheme design of the layout and external setup and roads. The design has been studied to keep operational conditions. Client: ITALFERR - Italy 2001.

RAILWAY LINK TO BOLOGNA - MILAN HIGH CAPACITY RAILWAY LINE

Construction design of around 10 Km of trackbed as well as structures, retaining walls, platforms. Assistance to the construction planning, near Rome, Milan and Reggio Emilia. Client: Rodano S.c.a r.l. - Italy 2000.

CONNECTION BETWEEN THE EXISTING RAILWAY LINE AND THE HIGH SPEED LINE IN CASAL BERTONE (Rome)

Detailed design of trackbed and structures, planning for diversion of roads and utilities. Client: ITALFERR - Italy 2000.

BOLOGNA AUTOMATIC UNDERGROUND: LINE 1 AND 2

Concept and scheme design of alignment, architectural design and study of urban environment renovation, structural design of stations. Client: Metropolitana Milanese - Common Of Bologna - Italy 2000/2004.

DESIGN OF THIRD LANE OF ROME GREAT RING ROAD (G.R.A.) - LOT G8 -

Detailed design of civil works, alignment and drainage system; Construction planning, site set up and health and safety study. Client: ANAS (in ATI with Tecnoproject, Prof. Domenichini) - Italy 2000/2001.

NEW RAILWAY STATION IN NAPLES AFRAGOLA

junction between high speed railway and local lines. Architectural and structural scheme design and planning of external environment, including road network.
Client: ITALFERR - Italy 2000/2001.

GENOVA JUNCTION- GENOVA - VENTIMIGLIA RAILWAY LINE

Specialised assistance to design and verification of planning. Sampierdarena Station, Voltri-Polcevera section, Genova XXMiglia Line. Client: ITALFERR - Italy 2000.

HIGH SPEED RAILWAY NAPLES URBAN INGRESS

Gricignano junction. Scheme and detailed design of trackbed and study of clashes with existing structures. Client: ITALFERR - Italy 2000.

INNOVATIVE TRANSPORT SYSTEM IN ROME EUR - TOR DE' CENCI

Automatic underground system. Structural and architectural design, functional study and planning of external environment. Environmental impact concept study. Client: Milanese subway - STA - Italy 2000/2001.

ROME TERMINI STATION

Detailed design, platform extension, Professional School and Control Centre POLFER. Client: GRANDI STAZIONI - Italy 2000.

REFURBISHMENT OF ASSISI TRAIN STATION

Architectural, Structural and utilities scheme and detailed design. Planning of internal and external works and design of two pavilions for reception of pilgrims.
Client: RFI - Italy 1999.

ROME UNDERGROUND LINE B, PIAZZA BOLOGNA - CONCA D'ORO BRANCH

Architectural scheme and detailed design of underground stations, way out and external buildings, planning of external urban environment. Client: ROCKSOIL - Italy 1998/2003

INDUSTRIAL AREA OF VALLE DEL SANGRO

Feasibility study of the plant and railway links (junction), intermodal junction and loading area. Client: Industrial pool Of the Valle del SANGRO - Italy 1999/2005

TOR VERGATA RAILWAY STATION ON ROME - NAPLES LINE

Architectural, structural, utilities design with regard to station area, buildings, pedestrian gangway (catwalk) and railway overpass. Client: RFI - Italy 1998/1999

ROME TIBURTINA TRAIN STATION

Civil works and railway utilities scheme and detailed design. Change of the Station masterplan for the Jubilee. Client: PROGER - Italy 1998/1999

NAPLES GREAT JUNCTION

Civil works and civil and railway utilities detailed design.
Client: ITALFERR 1998/2004.

SCC (BUILDINGS FOR THE CENTRAL CONTROL OF THE RAILWAY TRAFFIC)

of Genova, Verona, Venice, Pisa, Naples and Bari. Architectural, structural and utilities detailed design. Client: GEPCO SALC/CIPRA - Italy 1997

INTERMODAL CENTRE OF TERMOLI

Structures and network connection scheme and detailed design. Study of environmental impact. Client: Biferno Valley Joint Venture - Italy 1997/2006.

NAPLES - MILAN HIGH SPEED RAILWAY LINE

Scheme design of the railway connections to the existing line in correspondence of Naples, Rome and Bologna junctions. Client: TPL A.V - Italy 1992/1997

BOLOGNA RAILWAY JUNCTION

Detailed design of St.Ruffillo junction in Bologna. Client: 3P Progetti - Italy 1992/1998



04



03



02

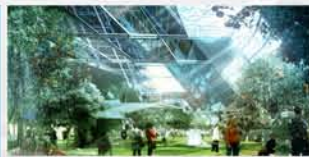


01



MAIN MONOGRAPHS

RAILWAY STATION



VESUVIO EST HIGH
SPEED RAILWAY
LINE



ZULFAI RAILWAY
PASSENGER
STATION



RIYADH METRO
LINE 3



ROME
UNDERGROUND LINE
"C" MALATESTA
INNOVATION BOX



ROME
UNDERGROUND LINE
"A" AND "B"
TERMINI NODE
INTERSECTION



ROME
UNDERGROUND LINE
"C"
TORRE SPACATA
AND TORRE MAURA
STATIONS

METRO STATION

TRAMWAY TERMINAL



TRAM DEPOT
PALMIRO
TOGLIATTI



LIGHT RAIL
TRANSIT RING
LINE 5 ERBIL



LIGHT RAIL
TRANSIT SYSTEM
SULAYMANIYAH



PANTELLERIA
AIRPORT



COSTA
SMERALDA
OLBIA GENERAL
AVIATION AIRPORT



SASSARI - OLBIA
ROAD PROJECT
LOT 3

AIRPORT TERMINAL

ROADS

ROADS



SASSARI - OLBIA
ROAD PROJECT
LOT 8

PARKING



PINCO
MULTILEVEL
PARKING

URBAN DESIGN



XIAOSHAN DISTRICT
MASTERPLAN
HANGZHOU

HOUSING



RESIDENTIAL
COMPLEX I
N CHINA



MULTIFUNCTIONAL
CENTER
- ANAGNINA
- MONTEMARIO

EDUCATION



AL TOUFOULA
CHILDHOOD CENTER
RIYADH



VESUVIO EST HIGH SPEED RAILWAY LINE



CLIENT
RFI Rete Ferroviaria Italiana SpA

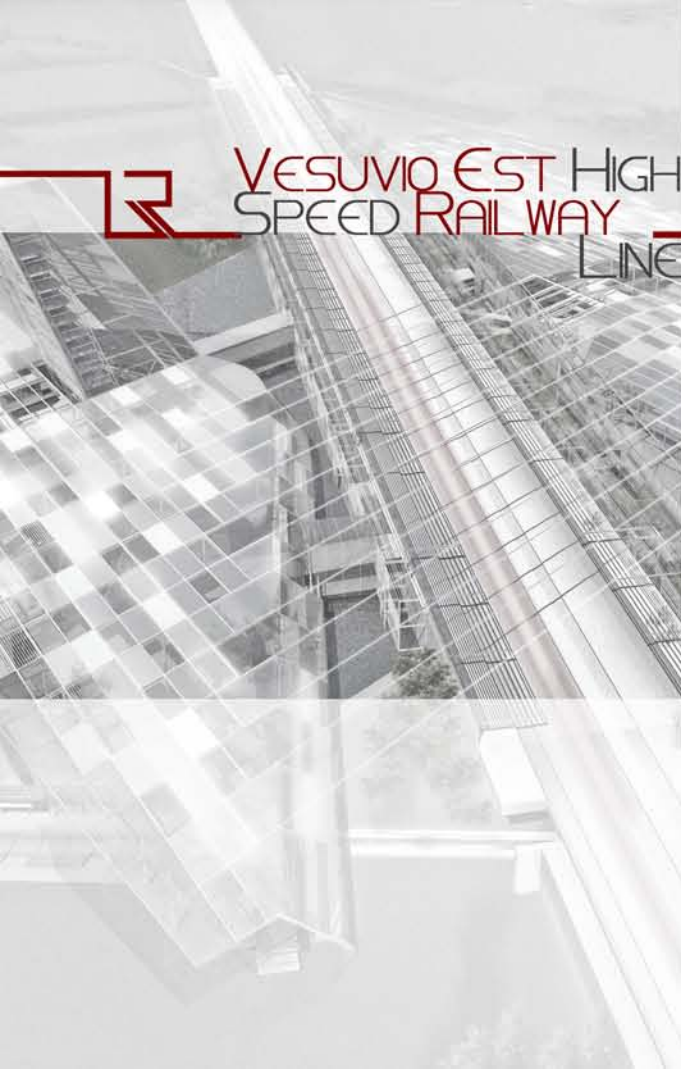
YEAR
2008

TOTAL AMOUNT
32,400,000 €

LOCATION
Striano /Naples Province/Italy

ROLE AND PROFESSIONAL INVOLVEMENT
Architectural and Structural Preliminary design
in collaboration with
NEMESI STUDIO and CENTOLA ASSOCIATI

CURRENT STATUS
Finalist project at the international competition



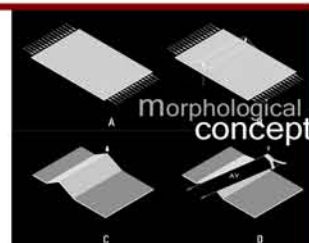
VESUVIO EST HIGH SPEED RAILWAY LINE



the Context planning

Context

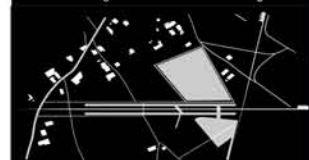
the project is located at the junction of the Milan - Reggio Calabria High Speed Railway and Circumvesuviana line, near the junction of the A30 Caserta-Salerno highway and the River Sarno.



morphological concept

the concept

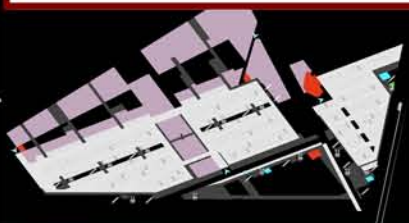
Not only a functional interchange but a landscape microcity in the Sarno valley with public spaces available to citizens and travelers.



the concept phases



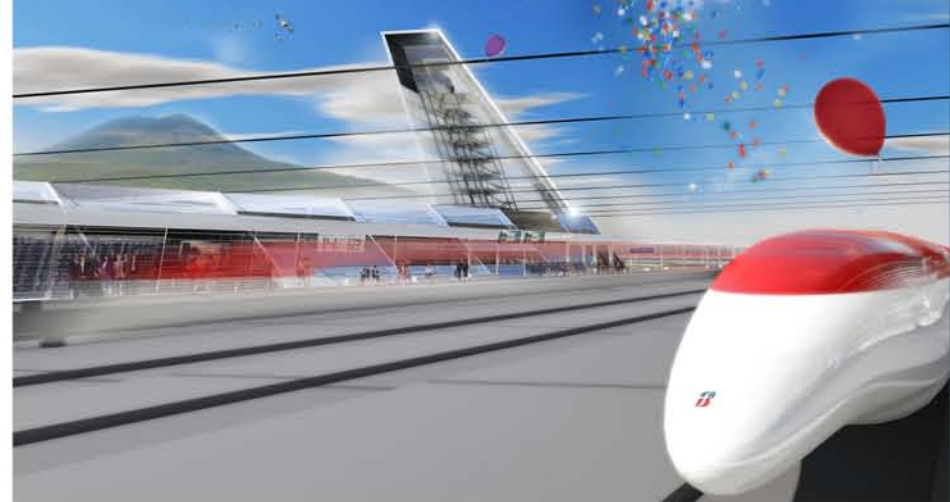
scheme



typological concept

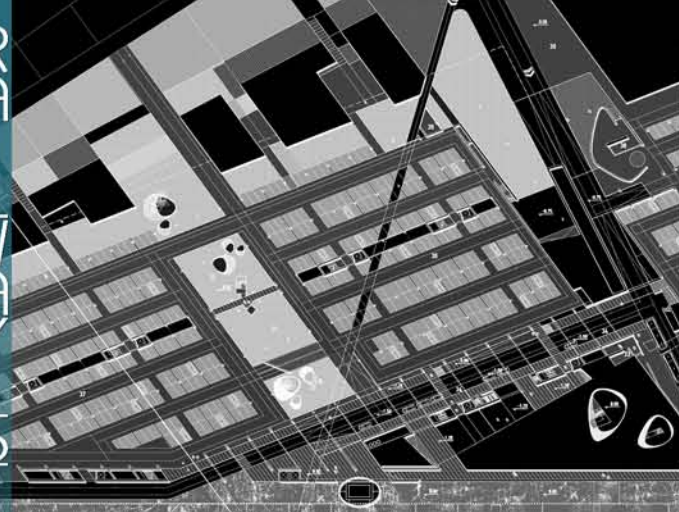
the project

Create the gene of the city-landscape of the Sarno valley around crossroads between the High Speed and the Circumvesuviana railway lines in a central position surrounded by Naples, Salerno and Avellino.

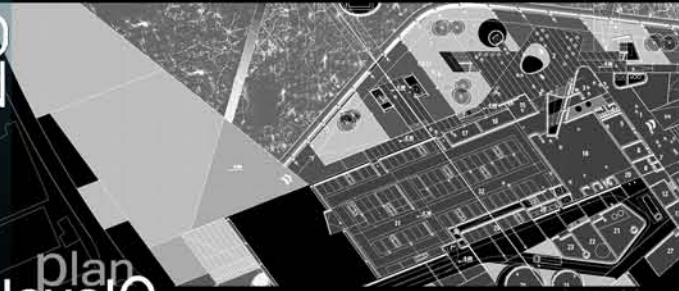


NAPLES, ITALY





VESUVIO EST HIGH
SPEED RAILWAY
LINE



plan
level 0



functionality

the project does not only respond to functional needs, but, by expanding the program, it creates spaces bringing life to the new city that will grow in any case in Striano regardless of an urban plan.

Energy saving

the objective is to reduce the internal temperature with passive systems that take advantage of the maximum natural ventilation, thermal inertia before resorting to the mechanical systems and climate control



Sustainability
Strategies

elevation





2011-2012 YDWT-DR



VESUVIO EST HIGH
SPEED RAILWAY LINE





ZULFI RAILWAY PASSENGER STATION



CLIENT
AL-MOBTY & Al-Bawani JV

YEAR
2017

TOTAL AMOUNT
25.000.000 €

LOCATION
Al Zulfi / Riyadh Province / Saudi Arabia

ROLE AND PROFESSIONAL INVOLVEMENT
Infrastructural, Architectural, Structural and Equipment design
in collaboration with
ITALFERR SpA

CURRENT STATUS
Tender Project



ZULFI RAILWAY PASSENGER STATION



the Context
planning

Context

The Zulfai station will be a part of the North-South railway that is made up of the following stations:

Riyadh Passenger Station, Majmaah Station, Qassim Station, Hail Station, Al Jawf Station, Quaryat Station; typological project that have the same architectural, functional and structural characteristics



typological
concept

the concept

In conceiving the geometry of our Project proposal Station building our main goals were:

- give a strong brand identity to the general image of the station.
- create a building with a strong aesthetic impact capable of expressing modernity, efficiency and a vision projected in the future

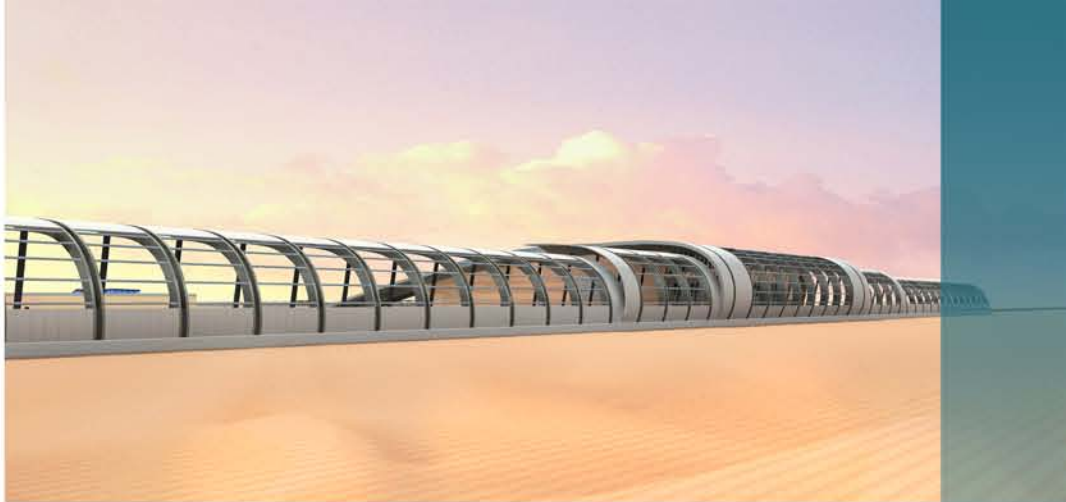
landscape
concept



Morphological
concept

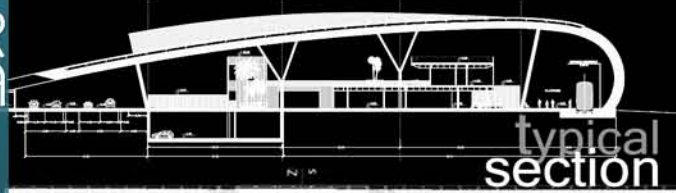
the project

The geometry of our proposed project unifies the whole composition in a single curved design that includes the station and the platform. Through a sloping geometry, coverage extends laterally to cover the all the length of platform. The unity and the essentially strong geometry of the morphological concept is reflected also in the interior space. There is also a direct and complementary relationship between structural and architectural elements into a single synthetic image that expresses lightness and functional efficiency.



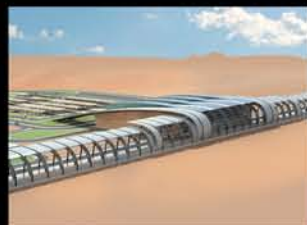
ZULFI, SAUDI ARABIA





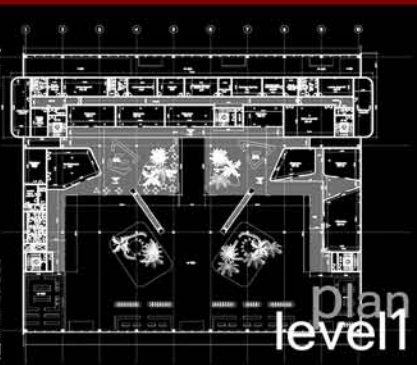
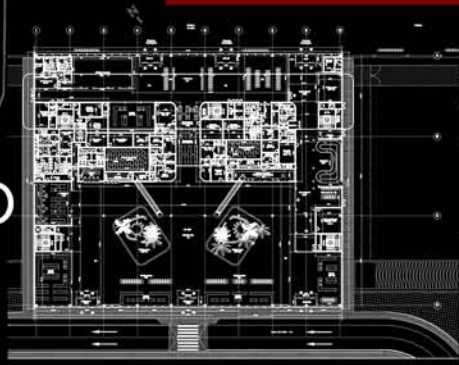
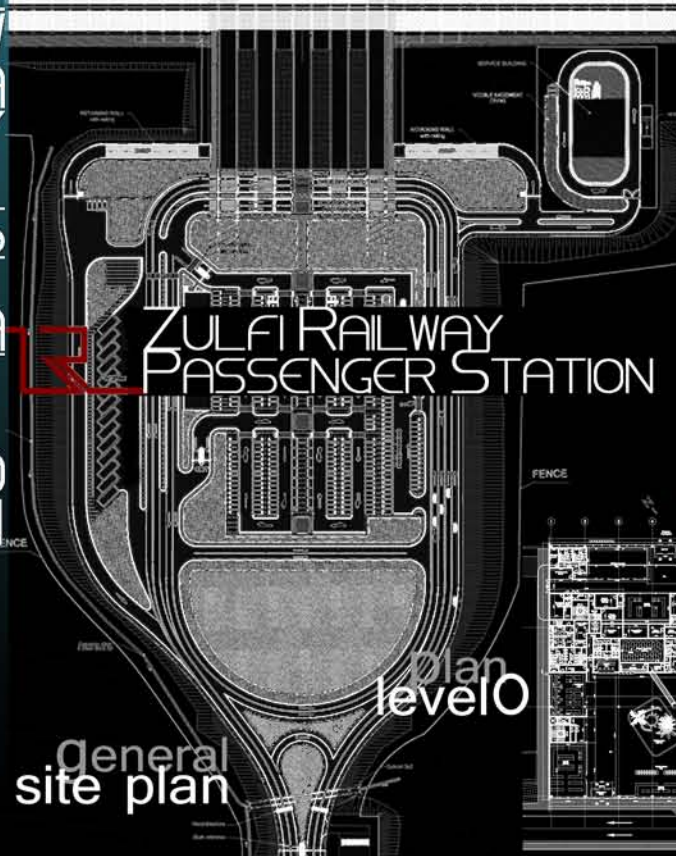
functionality

Volumetrically and functionally, the internal layout has been designed to: Favor the orientation of passengers, Avoid the intersection of flows of people, Improve safety. The volume of the mezzanine floor articulates the total open space under the roof in two main areas, the first for the unpaid area and the second for the waiting area. Visually the roof beams soar above the volume to the platform area like a wave. The interior space create a welcoming and pleasant atmosphere that can be a point of attraction regardless of the passenger transport function.



Energy saving

Our Project Proposal pursues goals to achieve LEED gold certification. In particular, the themes that have been developed in this way can be summarized in the following thematic areas: Integrative Process, Sustainable Sites, Water Efficiency, Energy & Atmosphere, Material & Resources, Indoor Environmental Quality, Innovation, Regional Priority









RIYADH METRO LINE 3



CLIENT
CWG

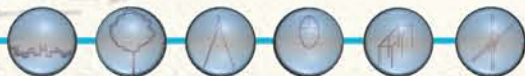
YEAR
2015

TOTAL AMOUNT
4,135,135,000 €

LOCATION
Riyadh/Saudi Arabia

ROLE AND PROFESSIONAL INVOLVEMENT
Structural and Architectural shop drawings

CURRENT STATUS
Under Construction



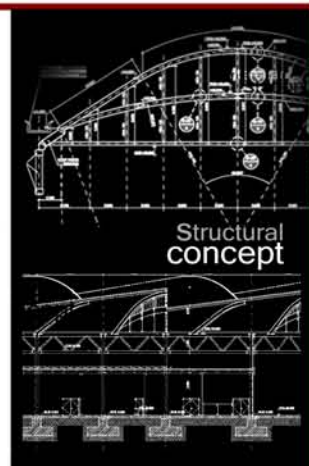
RIYADH METRO LINE 3



the Context
planning

Context

The Deep Underground Station 3F1 is located within a public square near the King Abdullah bin Abdulaziz bin Turki Street, in front of the Riyadh Railway Station, near the existing parking area.



Structural
concept

the concept

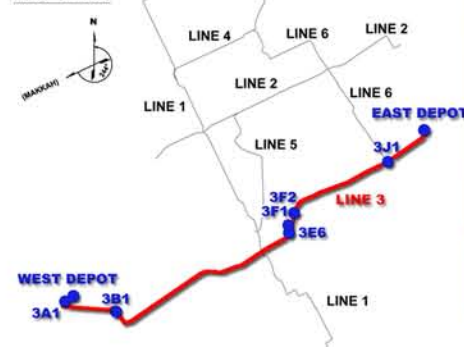
The project involves the design and the construction of the new Line 3 (41.58 km) Metro Riyadh, the longest line of the gigantic project of the new network of subways of Saudi Arabia capital.

the project

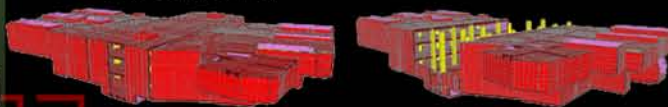
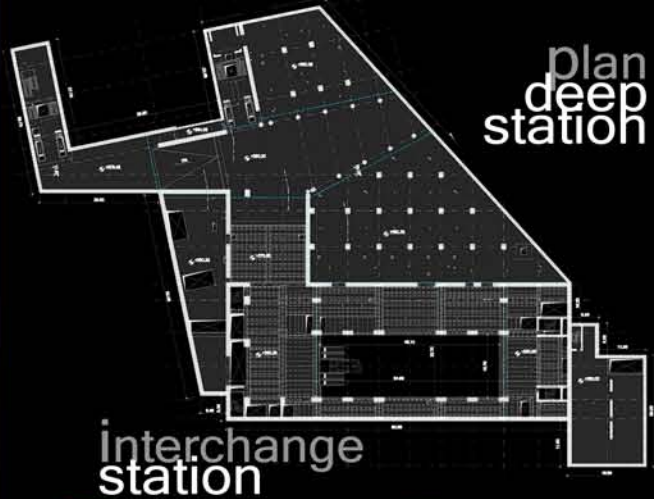
The lot awarded is in fact an important part of the broader contemporary construction project of the new Riyadh metro network, consists of 6 lines with an overall length of about 180 km. The main technical data can thus be summarized: Total line length - 41.58 km Number of stations - 22 Line on viaducts - 25.73 km Line Tunnel - 9.73 km (of which 3.5 km with TBM) Surface line - 4.10 km Multi-storey car parks for the user - 114.000mq Deposits for servicing trains - 2 Roads and green areas - 362.000mq



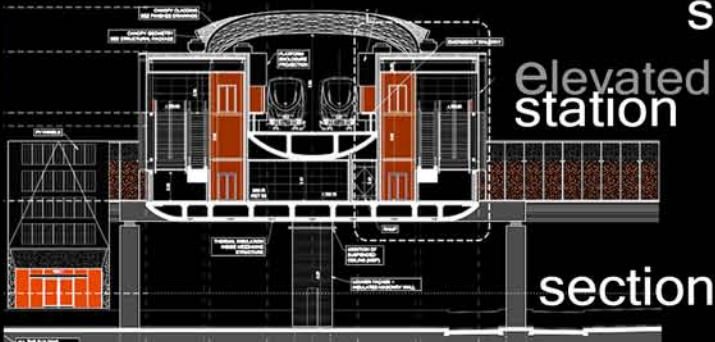
KEY PLAN



RIYADH SAUDI ARABIA



RIYADH METRO LINE 3



functionality

deep underground station
The design of this deeper volume includes 3 different underground levels (concourse level, mezzanine level and platform level) with a central atrium at mezzanine level that configures all passenger flows. This Central Atrium is an open space that helps to carry natural light to platform level.

elevated station
The typical elevated station consists of a two-side platform section forming a bridge over the road below and two mezzanines at each end. Below grade level structures are those destined to serve as foundation of all the superior structures that conform the elevated stations.

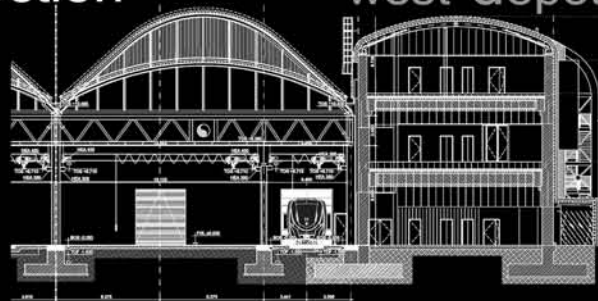
the interchange station
where the L3 and L6 lines cross of the subway in Riyadh. The bottom slab consists in a reinforced concrete slab with a cross shape (approximate $144 \times 55 + 150 \times 32$), with a horizontal angle around 80° . The bottom slab can be separated in three different main areas according level of bottom of excavation; L3, L6 and Concourse level area.

the West Depot
one of the two objects of the works, consists of 9 factory buildings for a total area of 50,000 square meters. All of the buildings inside the Warehouse are made of steel structures (except construction D and E construction with CA supporting structure, supporting metal arches that make up the volume of the bridge).



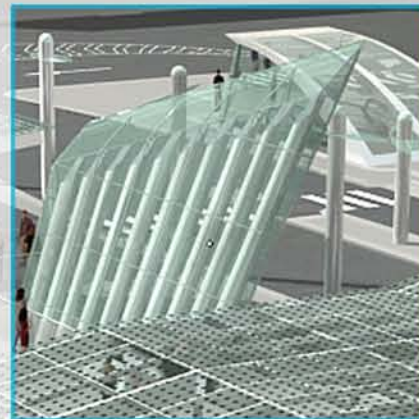
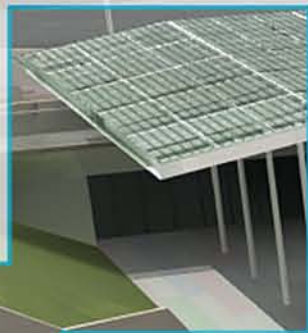
section

west depot





ROME UNDERGROUND LINE C MALATESTA INNOVATIVE STATION



CLIENT
Metro C Spa

YEAR
2005 - 2015

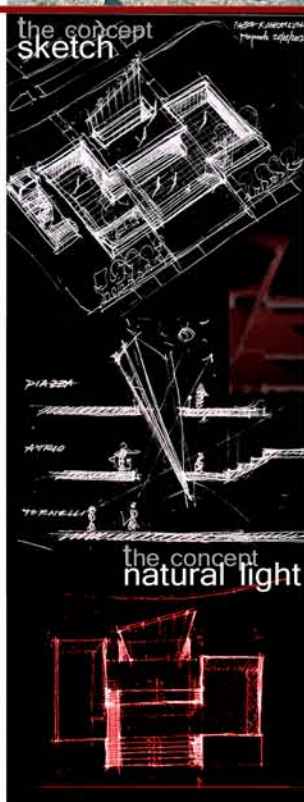
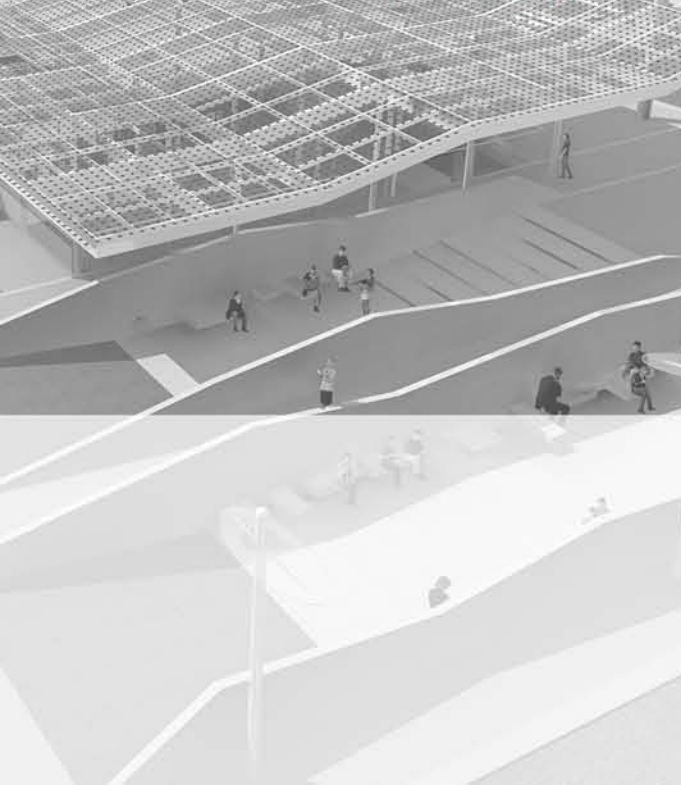
LOCATION
Rome, Italy

TOTAL AMOUNT
85.800.000 €

ROLE AND PROFESSIONAL INVOLVEMENT
Concept design, architectural and structural
detailed design and special equipment

CURRENT STATUS
Built

ROME UNDERGROUND LINE C MALATESTA INNOVATIVE STATION



Context

Malatesta Station is part of the Metro Line "C", Rome's third metropolitan network, which, once completed, will have a length of about 39 km and will consist of 42 stations; it will create a fast public connection crossing the entire city of Rome from north-west to south-east

the Concept

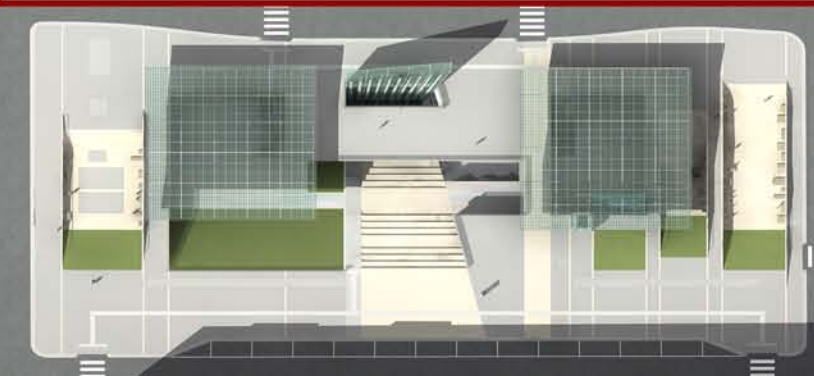
The exterior is the innovative fulcrum of the project which foresees the creation of a square on two levels: The first is at street level and incorporates natural elements that meld with the architectural and functional aspects; it is conceived as a meeting place where one can linger or stop for a while

the Project

The employment of lightweight, transparent materials such as steel and glass as coverings for the access points, parapets etc. increases the penetration of natural light and is a theme which recurs throughout the project. The floor below the ground level is obviously illuminated artificially. Light travels through the various levels, including street level, by means of a transparent prism which is both architecturally innovative and focal to the project.

Virtual reality

A 3D Virtual Reality reconstruction was produced for the Malatesta station which aided research into how it would blend into its urban context, showing its functionality, and the architectural aspect of both exterior and interior.



ROME, ITALY

ROME UNDERGROUND LINE C MALATESTA INNOVATIVE STATION



Energy saving

The objective is to make the station energy self-sufficient for all those needs that do not relate to the transport system, through the use of active systems (Photovoltaic covers)

Renewable energy

The exploitation and conveyance of natural light to the interior of the underground spaces through integrated architectural elements (glass prism and light pipes)

Water saving

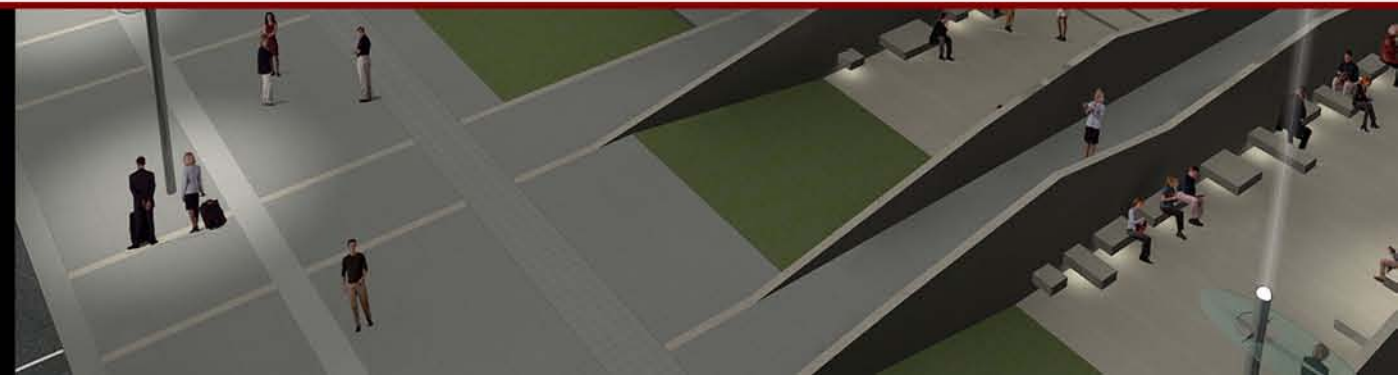
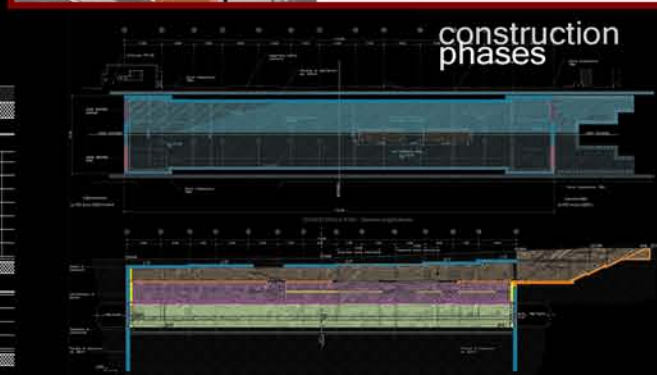
The system on the roof garden, thanks to the presence of water storage, means that the green area will be able to collect and accumulate a greater quantity of water than a normal tank floor

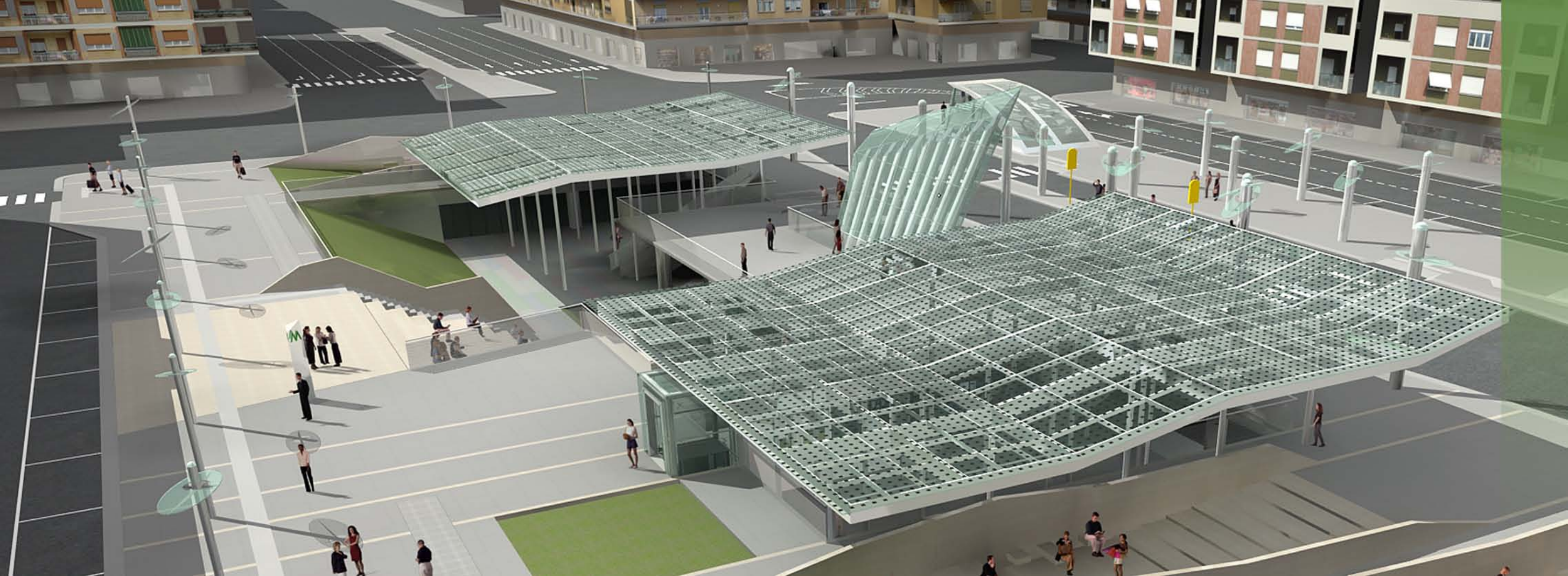
Climatic comfort

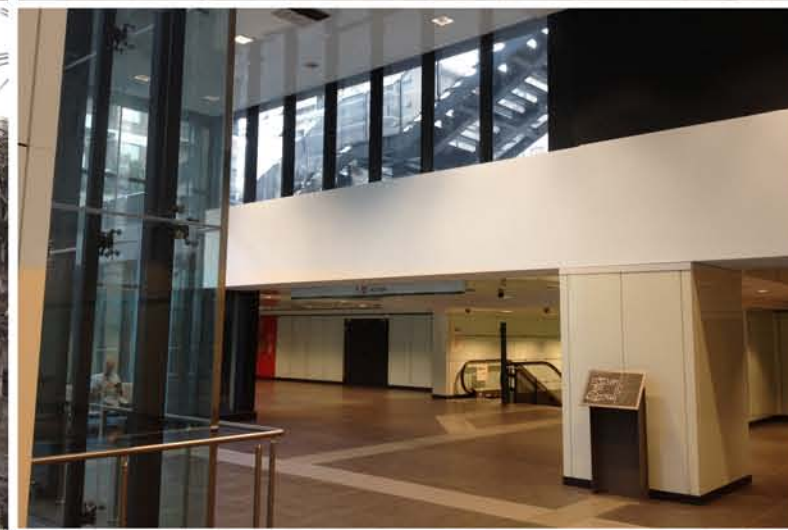
The environment of the square is climatically controlled by architecturally integrated water mist systems

Geothermal energy

The geothermal plant ensures the autonomous production of hot water and energy needed for the heating / cooling systems of the station

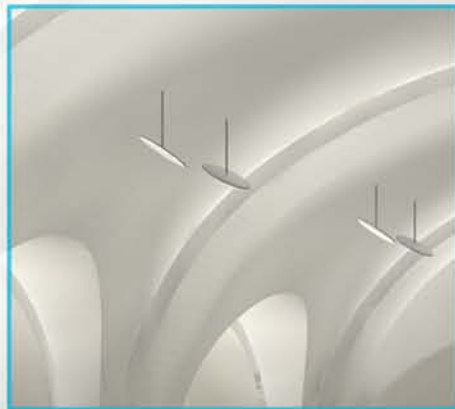








TERMINI NODE METRO LINE 'A' AND 'B' INTERSECTION



CLIENT
Roma Metropolitana

YEAR
2008-2013

TOTAL AMOUNT
41250.000 €

LOCATION
Rome, Italy

ROLE AND PROFESSIONAL INVOLVEMENT
Detailed architectural, structural design and equipment

CURRENT STATUS
Built



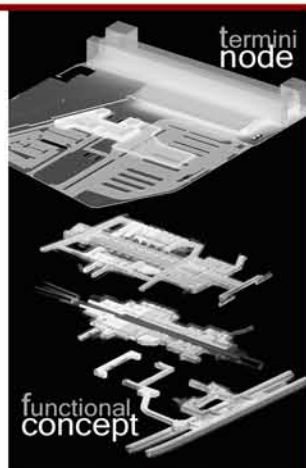
TERMINI NODE METRO LINES 'A' AND 'B' INTERSECTION



the Context

Context

Termini station is the most important railway station in Rome. The design concerns the adaptation of the interchange between the A and B metro lines and more generally the revamping and modernization of its functional characteristics, interior spaces and the upper square, including the bus stop terminal.



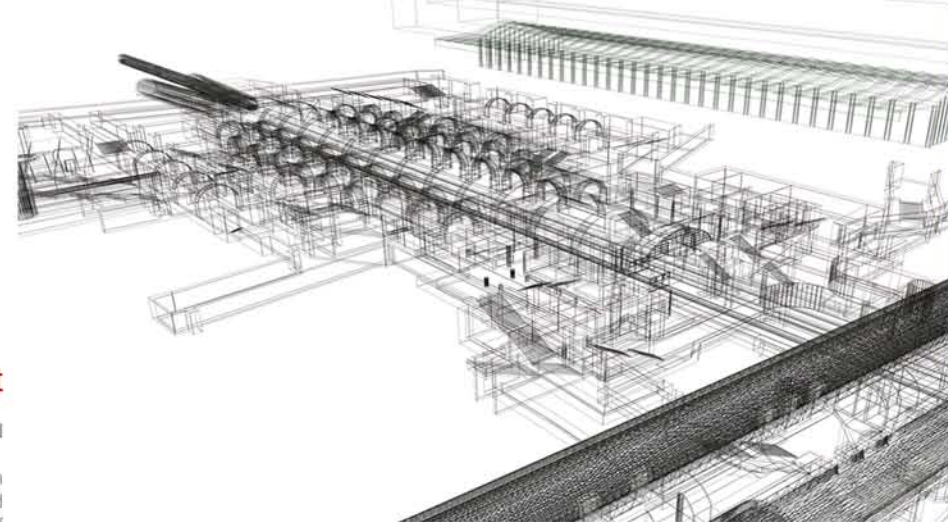
termini node

functional concept

the Concept

Project keywords are: safety, comfort and functionality.

The primary innovation is the new link path between the subway platforms of lines A and B, that doubles the existing potential of metro A way out and distributes passenger flow.



ROME ITALY



line 'A'
and
line 'B'
Intersection

longitudinal
termini node
Section

TERMINI NODE METRO LINES
'A' AND 'B' INTERSECTION

atrium
plan
Section

stairs
detail

platform
plan

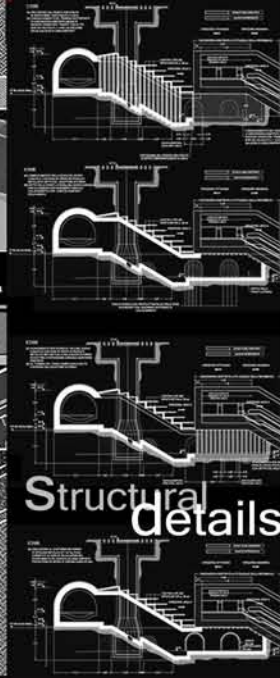
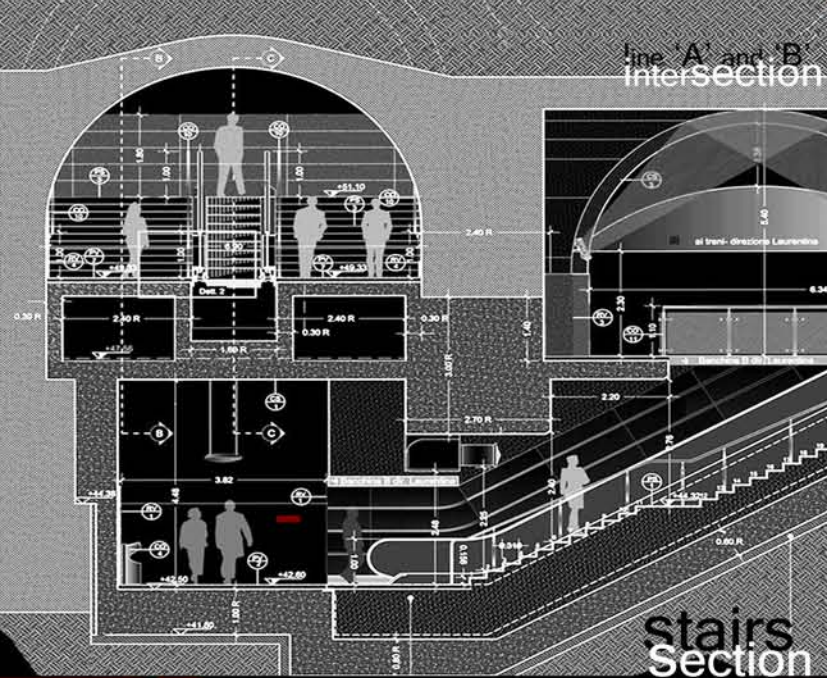
functionality

The project aims at reorganizing the interior paths thus improving accessibility for all users. All the vertical connections will be mechanized and there will be new escalators, people movers and elevators.

innovation

The renovation of technological installations regards electrical and special plants and turnstile system. Special attention is given to automatic fire suppression systems.





Materials

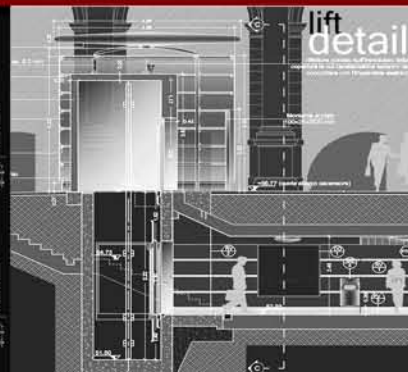
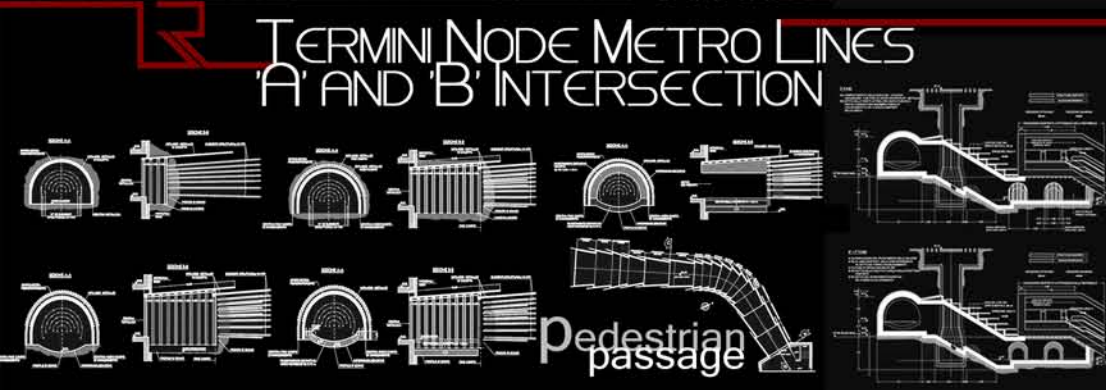
The station will have a new image thanks to the employ of new innovative materials: porcelain steel for coverings and porcelain stoneware tiles for floors.

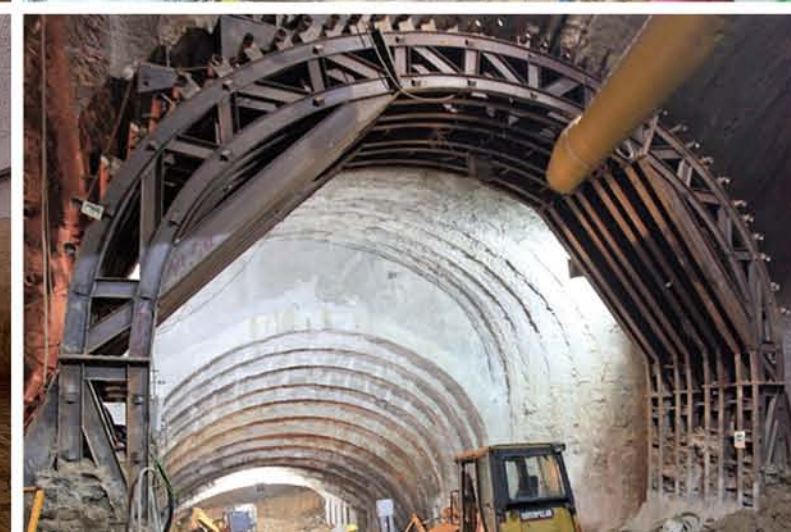
Porcelain steel is highly wear and vandalism resistant; porcelain stoneware is more resistant than marble and has the same aesthetic quality.

Easy maintainability, high durability, fire resistance, brightness and strong formal identity in choosing the materials.

Safety

Fire safety will be enhanced by the following: air extraction systems - 2 plants to be installed for both line A and line B; air curtains and sprinklers in stand B; air curtains in the new premises in the open arches at the platform; new air curtains to the floor of the premises at the underpasses of shafts (both existing and new) that lead to the B line.







TORRE SPACCATATA AND TORRE MAURA STATIONS LINE 'C'

15:04 27



CLIENT
Roma Metropolitana

YEAR
2008-2015

LOCATION
Rome, Italy

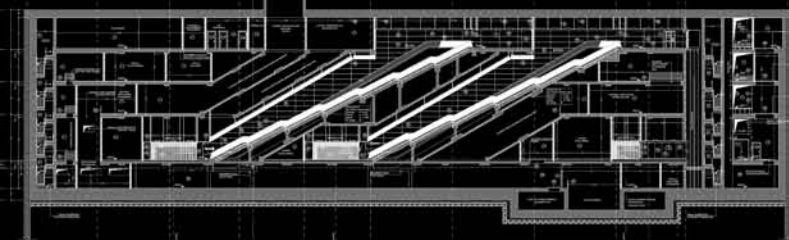
ROLE AND PROFESSIONAL INVOLVEMENT
Concept, Detailed architectural, structural design and equipment

CURRENT STATUS
Built





TORRE SPACCATATA STATION LINE "C"



Context

The area is characterized by a housing of single-family homes and spontaneous settlements with towers and high density new buildings.

the Concept

The construction of the station will provide an opportunity for redevelopment of the area, through the organization of the areas at street level and the realization of two garden squares

the project

The Metro Station will assume significance of **intermodal station** for the planned construction of a **bus terminal** at the intersection of Casilina street and Tor Tre Teste street



Context

The area, developed at the turn of GRA, is broadly characterized by a dense urbanization, the result of spontaneous buildings and a diffuse illegal constructions.

Other building presence consist in farm buildings and rows of trees that show the agricultural vocation of this land.

the Concept

The main objective is the creation of a square-garden, which slopes from an altitude of up to share the road lobby, redeveloping the area

the project

The extra height of the atrium floor, where the coverage follows the terraced layout of the road, you can use the space you need to pass all the systems above the ceiling.

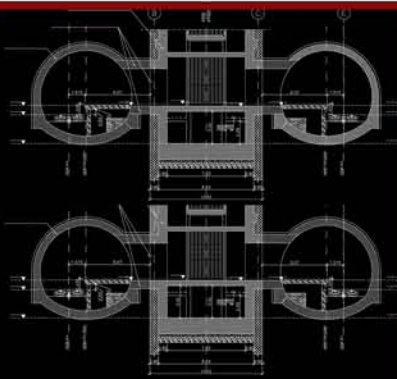
In the lobby floor a double row of turnstiles (9 inbound and outbound 9), conveniently situated opposite the station and manned by the agent, enter the controlled area from which you access the docks.



detailed
plant

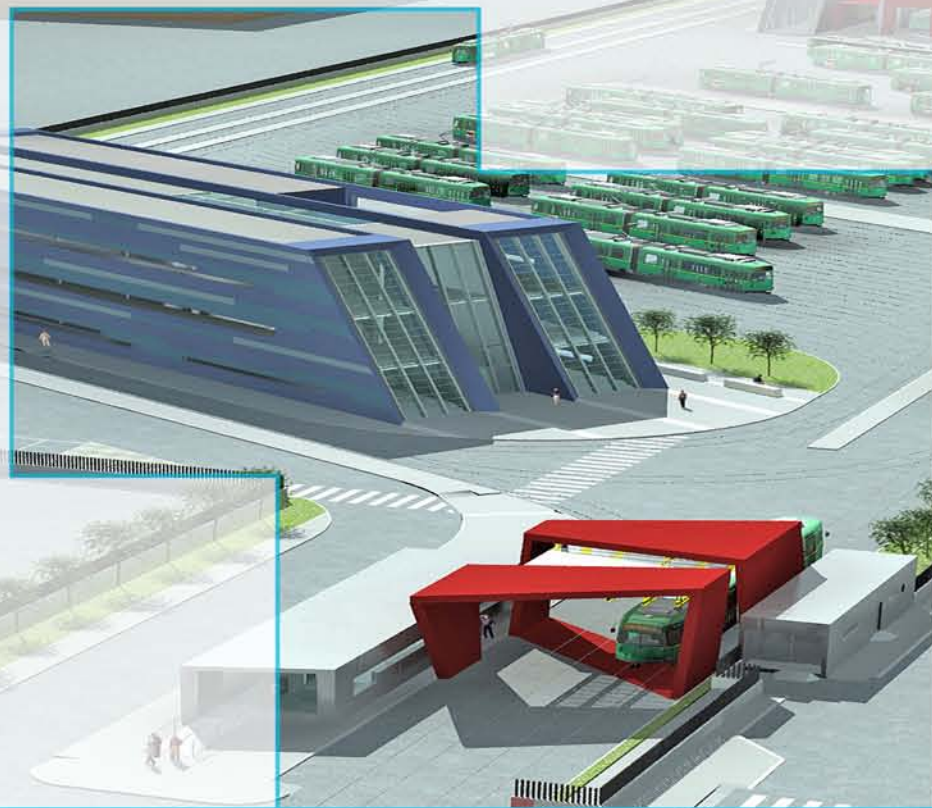
detailed
Design

TORRE MAURA
STATION LINE "C"





TRAM DEPOT PALMIRO TOGLIATTI



CLIENT
Atac

YEAR
2005/2007

LOCATION
Rome, Italy

TOTAL AMOUNT
57,400,000 €

ROLE AND PROFESSIONAL INVOLVEMENT
Concept, preliminary design and architectural, structural and equipment detailed design

CURRENT STATUS
works suspended





TRAM DEPOT PALMIRO TOGLIATTI



the Context
planning

Urban concept

final plan and Executive Summary for public works including technological installations for civil and rail use.



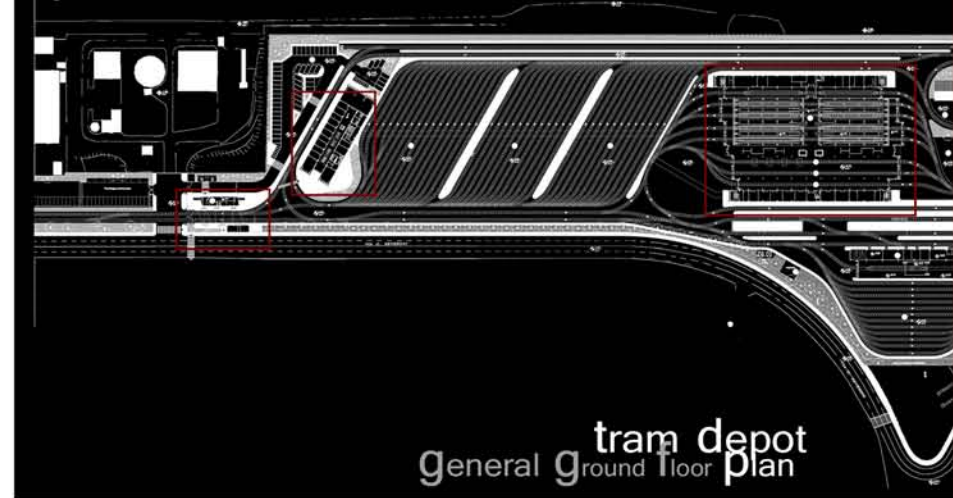
the concept
sketch

morphological
concept



the Concept

The designers have developed the whole project as a living, vibrant organism where the various components integrate to guarantee the efficient running of the facility. The latter is both the heart and brain of the project whose concepts extend throughout the entire network.



general ground floor plan

ROME, ITALY





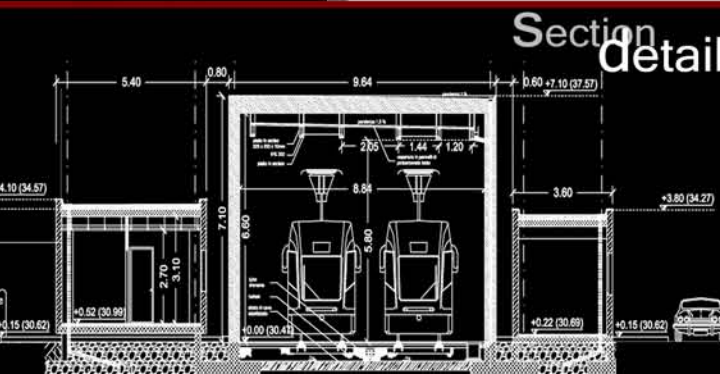
the main entrance controls the **access points** used by trams and personnel and it groups together all the monitoring sensors that control the efficient running and safety standards of the installations.

Access to the offices leads to a seemingly isolated "island" which however looks out onto and monitors the plant.

Here we find the control room from which all the Center's activities can be observed with its Centralized Traffic Control system whose synoptic charts control the traffic on the network. Alternating protective walls interspaced with large panoramic windows make the area conducive to work and create a sense of outside inside. It is an "industrial complex" of strategic importance for the efficient functioning of Rome's tram system.



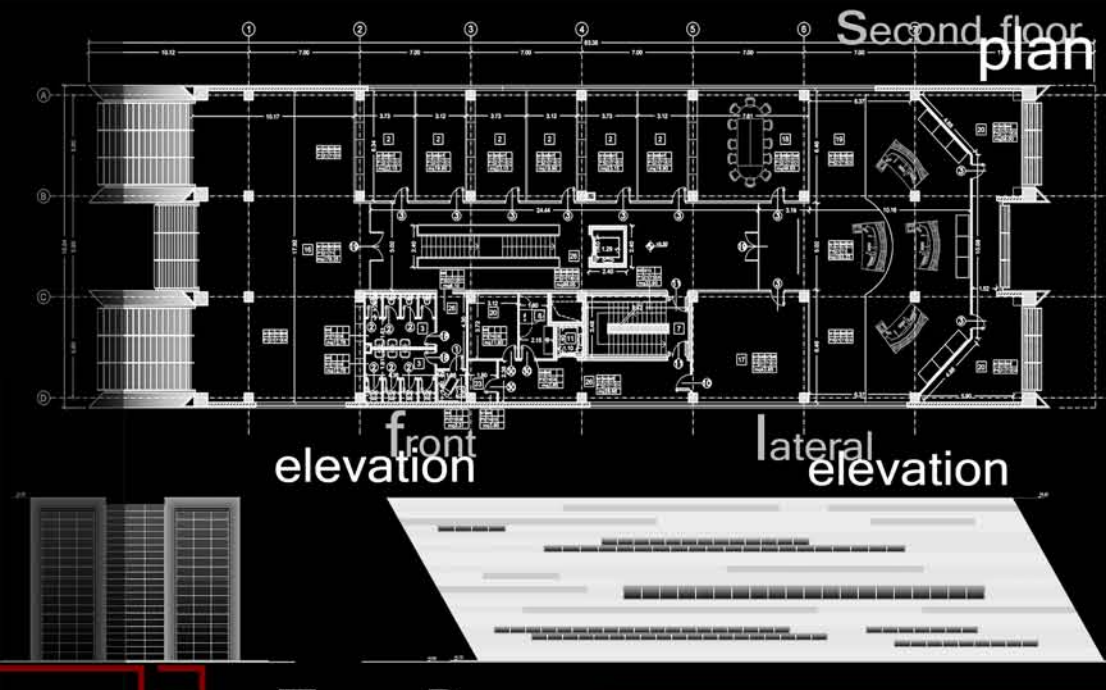
TRAM DEPOT
PALMIRO TOGLIATTI



Section detail

elevation

PORTER'S LODGE AND MARQUEE



technology

technology used is sophisticated, innovative and bespoke and pays particular attention to security, safety and energy saving.

Planning and design of the whole complex were based on the modern concept of "intelligent buildings" better known as Building Automation, in order to create an integrated, computerized management system for the technological installations, IT tools and the network infrastructure

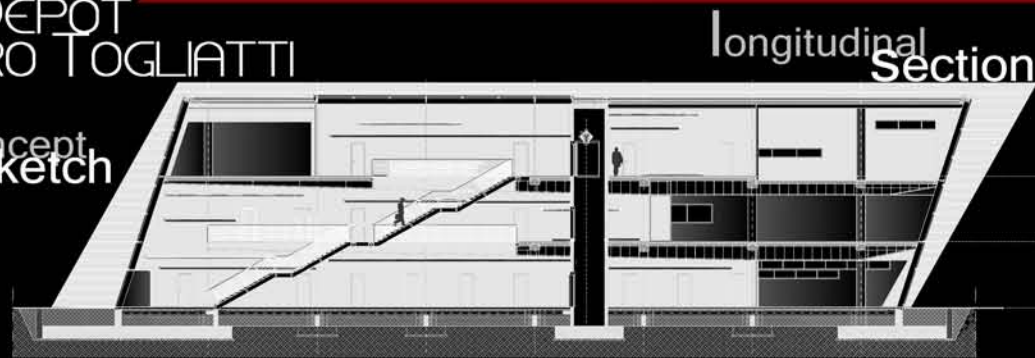


TRAM DEPOT PALMIRO TOGLIATTI



OFFICES BUILDING

Concept Sketch





Sustainability

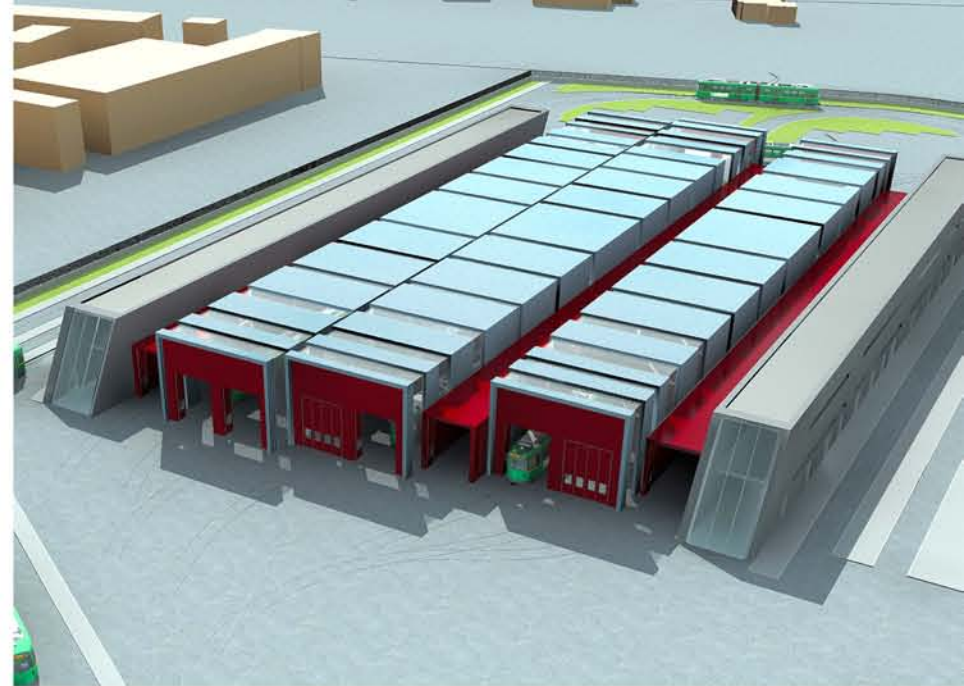
The project includes technologies that exploit renewable energy interfaces with the architectural design of buildings. The search for the best exposure and location of the various buildings and their functions has not only ensured an optimization of energy consumption but also an increase in comfort.

Photovoltaic plant

Atac depot has a photovoltaic plant which aims at achieving significant energy savings. The photovoltaic systems are strongly characterized by a low environmental impact.

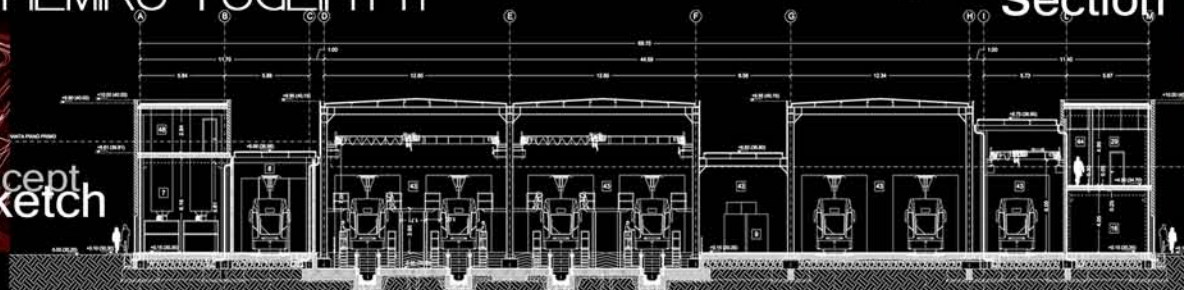
Cogeneration

The heating of the workshop building will be produced by two microturbines cogeneration power stations that produce hot water and electricity from methane gas.



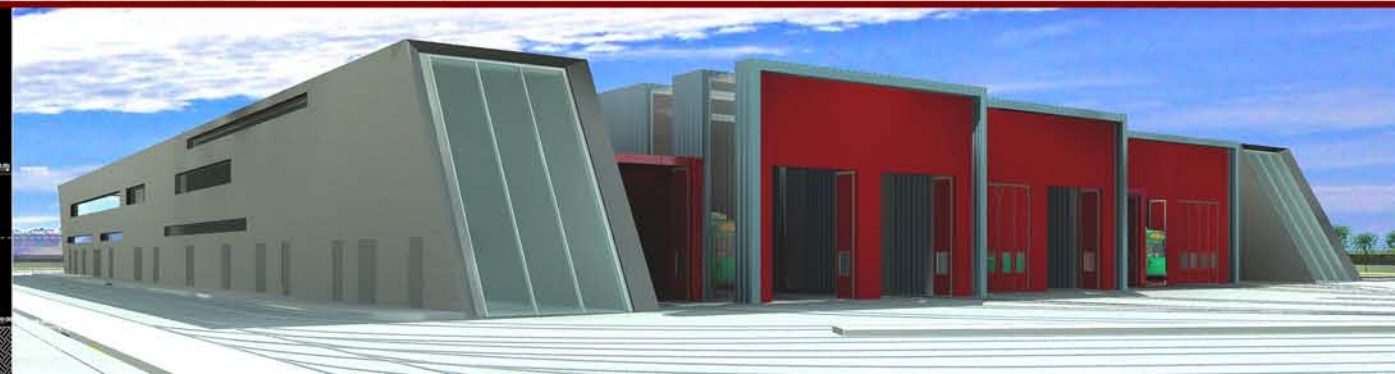
TRAM DEPOT PALMIRO TOGLIATTI

Longitudinal Section



Concept Sketch

TRAM DEPOT





TRAM DEPOT
PALMIRO TOGLIATTI





LIGHT RAIL TRANSIT RING LINE 5 ERBIL



CLIENT
Kurdistan Regional Government

YEAR
2014

LOCATION
Erbil, Kurdistan, Iraq

TOTAL AMOUNT
345,093,965 €

ROLE AND PROFESSIONAL INVOLVEMENT
Preliminary architectural, structural and infrastructural design

CURRENT STATUS
Final design



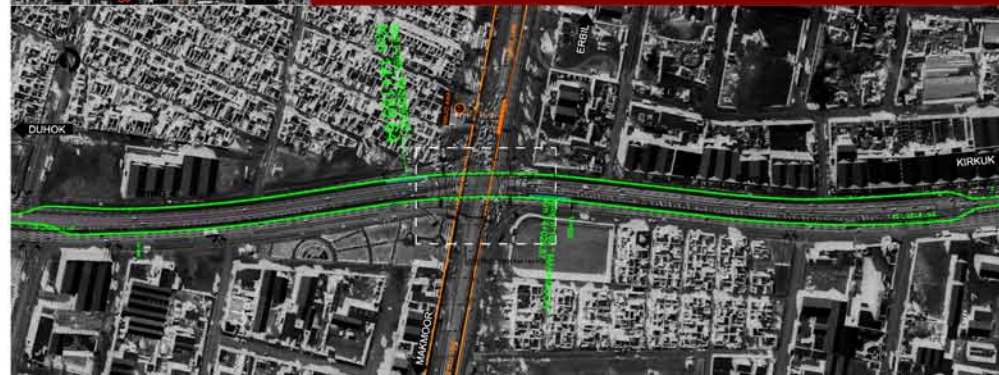
Light Rail Transit Erbil



the Context



typical Intersection

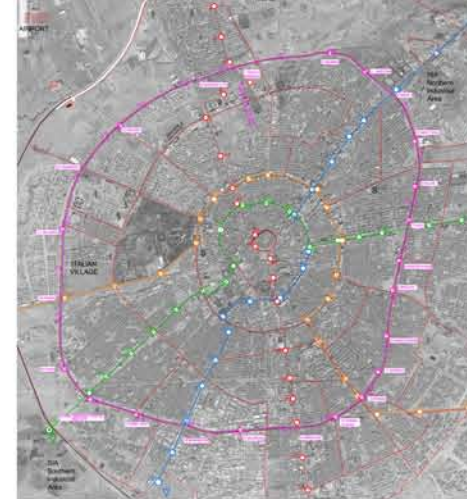


Urban Concept

The new tram of Erbil, named T5 Circle Line will develop into Erbil along the existing Ring 4 also known as Ring 100, which is the ring road about 4 km from the center of Erbil. The Ring 4 in the East is also called Peshawa Quazi while in the West, Quazi Muhammad and has normally a green belt in the middle of the carriageway and service roads especially in the West part of the Ring 4

the project

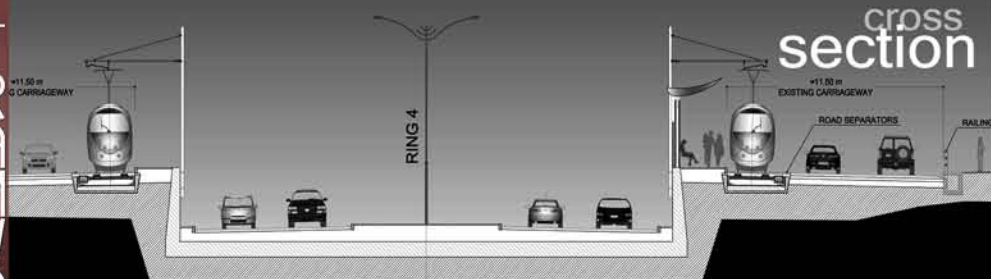
The green belt is approximately 8m wide, with a minimum of 4 lanes for vehicles, in each direction, and in some sections (East part of the Ring) even in the streets of service left and right with 2 or 3 lanes in each direction. Generally, the new T5 Circle line is expected to be placed on the sides of the existing green belt, with a little reduction of the existing dimension of the carriage way. The tramway is generally separated from the roadway by a barrier of protection that reduces by about 3.40 m the existing carriageway, always guaranteeing, In most of the Ring 4, three lanes in each direction march.



General Network Plan

Kurdistan, Iraq





cross
section

functionality

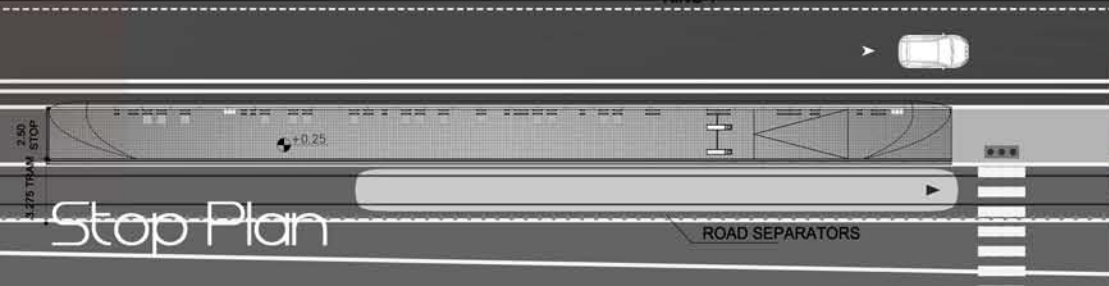
Ring 4 has different sections along its length and in the presence of intersections with the main road where there are also the main tram lines already designed.
Near these intersections, the T5 tramway has dedicated lane separated from the road using road separators that can be crossed in case of emergency or special needs.

- The stops of T5 Circle line are designed by pursuing the following objectives:
- Respond in the best way possible to the needs of functionality, comfort and safety of users
 - To give citizens a product of high design and technologically innovative solutions
 - Ensuring maximum durability of materials and finishes
 - Use elements of street furniture integrated into the overall design
 - Use renewable energy sources (photovoltaic roof)



Stop
profile

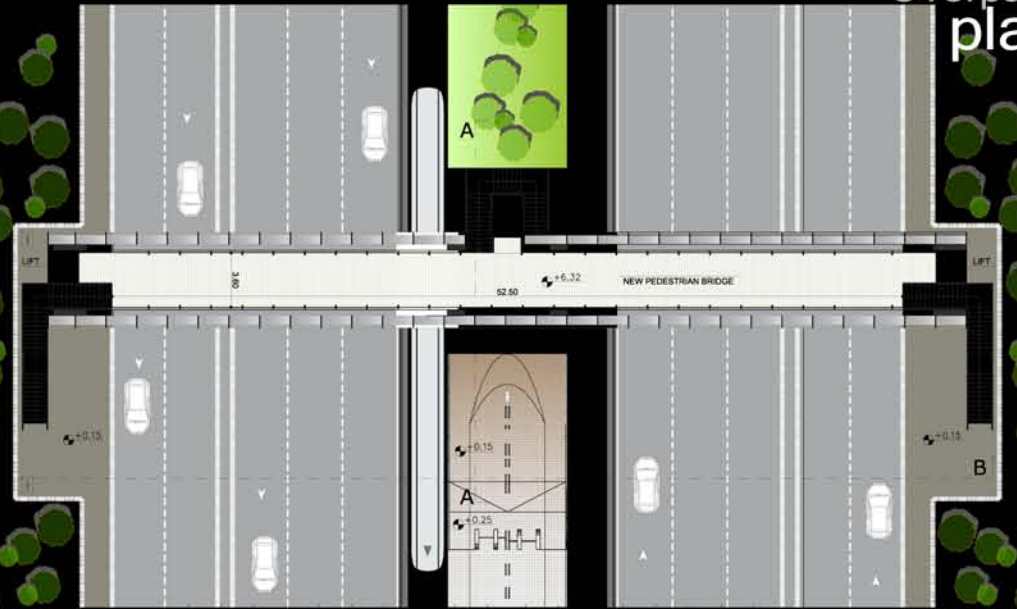
Light Rail Transit Erbil



Stop Plan



Overpass plan



elements

The T5 Tram stops will be positioned on the sidewalk on both side of the existing underpass appropriately adjusted to ensure, as much as possible, the pedestrian intersection with the line T2 blue line and with neighboring hospitals. Road separators are placed along the underpass between the tramline and the road. Railings on the sidewalk are provided in order to allow access to the tram stop only through the crosswalks.

- The stop station is equipped with signs and equipment systems of last generation, in particular:
- Signs system
 - Map of the transport network
 - Electronic LED Monitor
 - Clock
 - Turnstiles for controlled entrance



Light Rail Transit Erbil



Cross Section







LIGHT RAIL TRANSIT SYSTEM SULAYMANIYAH



CLIENT
Kurdistan Regional Government
Council of Ministers Ministry of Transportation

YEAR
2011-2014

LOCATION
Sulaymaniyah, Kurdistan, Iraq

TOTAL AMOUNT
850,000,000 €

ROLE AND PROFESSIONAL INVOLVEMENT
Concept, preliminary design and architectural, structural and equipment detailed design

CURRENT STATUS
Final design approved



LIGHT RAIL TRANSIT SYSTEM SULAYMANIYAH



the Context
planning



the concept
sketch

Morphological
concept



Urban Concept

The tramway system designed in this project constitute the essential backbone of the transportation system of the City of Sulymania and will support the future urban development, and it should be developed and improved by introduction of an integrated transport policy program of the city.

the Concept

The system should be realized in phases, giving high priority to Line 1 and the Main Depot and implementing bus lines along the other Lines' routes in the first Phase. In the design of the System particular attention was given to preserving existing green areas along the roads where tram line are located.



SULAYMANIYAH, IRAQ



depot plan

transversal
Section

functionality

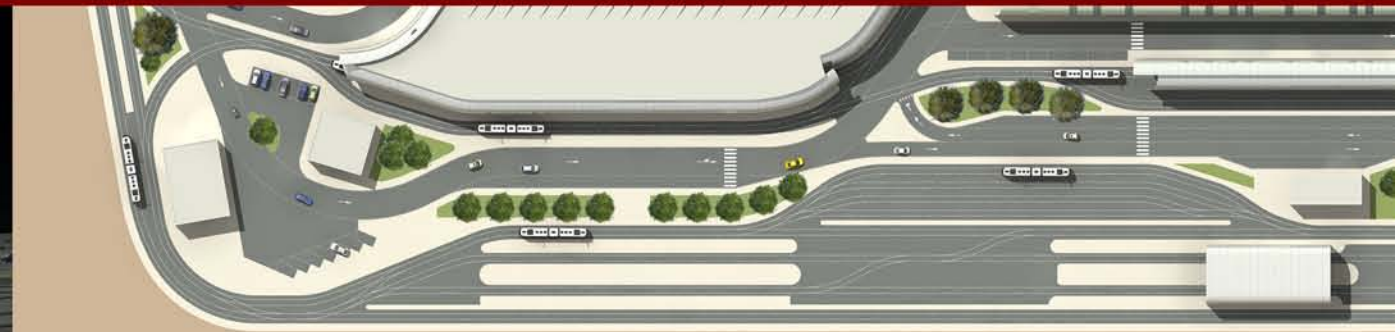
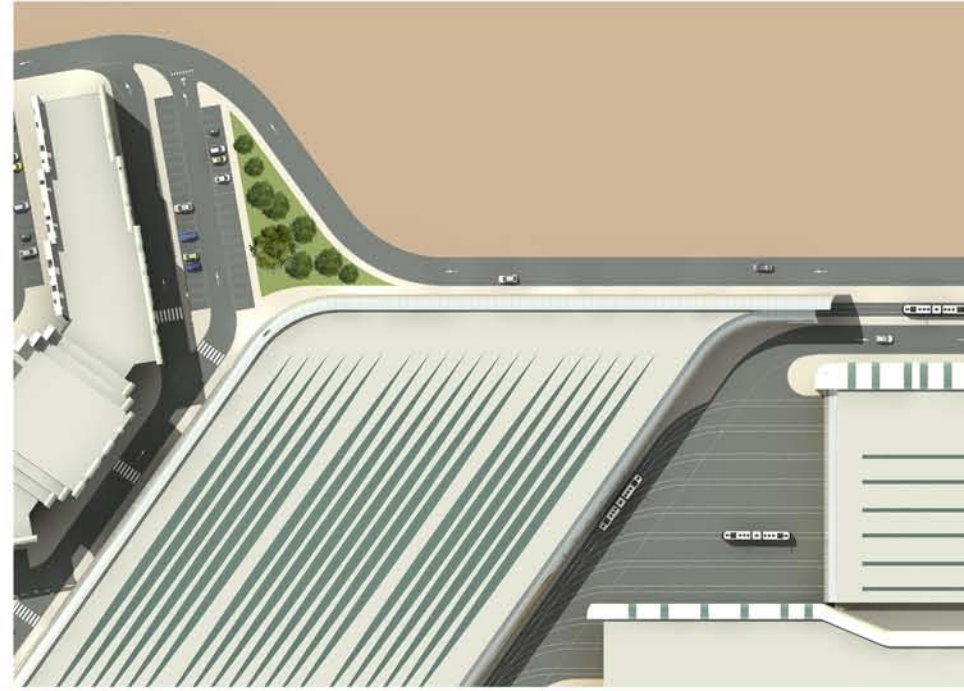
The Sulimania Tramway System is composed of 8 lines with a total length of 58,840 meters and globally 128 stops. The system is composed also of 2 Depots, the Maintenance Workshop, the Office Building and the Operation Control Center, and the secondary Depot, located close to the Sulimania Ring Road. The Main Depot and Workshop will be located along Line1, in a land plot located close to the airport.

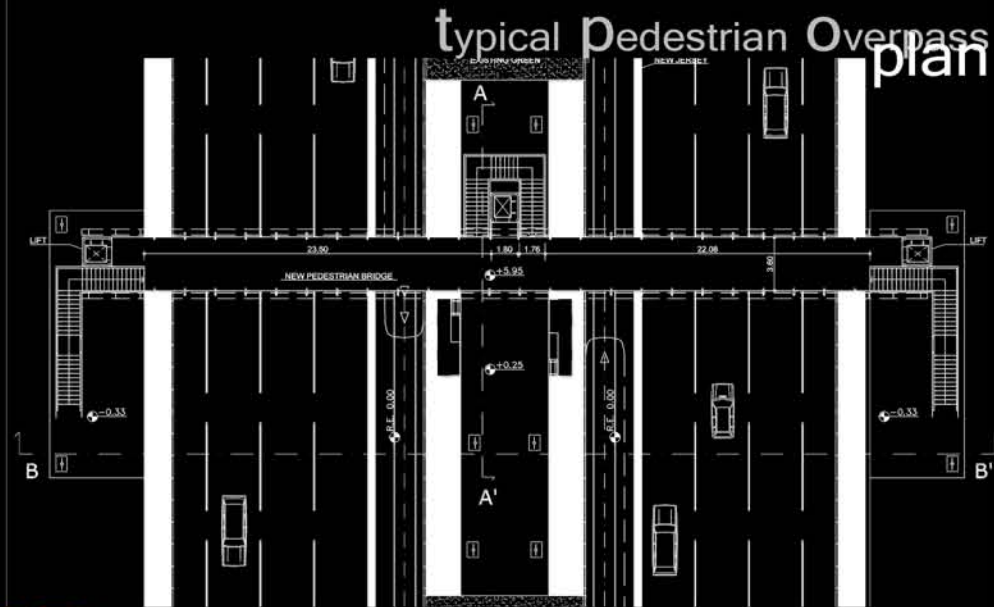
The extension of this e area is compatible with the number of trams that need to serve, and from the area available, will permit the preliminary layout of the depot and workshop area, when the area is confirmed. The area is close to Tasluja-Sulaimaniyah HYW but far from populated areas, so it will not create noise problems to inhabitants due to the movements in the depot and workshop. The secondary Depot is located along Line 3 and have minor dimensions.

Elevation

LIGHT RAIL TRANSIT SYSTEM
SULAYMANIYAH

TRAM DEPOT

the concept
sketch



functionality

The proposed Tramway System is fully consistent with the LRT system of the City Master Plan. The LRT System, that is mainly located outside the existing city, has been proposed for a 20 years development scenario and therefore is mainly aimed at linking the new expansion areas of the city.

Typical stop with pedestrian overpass were included in the tramway system design. For the above, the proposed tramway lines have been designed also taking into account the future development of the city, and consequently the expansion of the Tramway System itself in accordance with the outcomes of the City Master Plan.



LIGHT RAIL TRANSIT SYSTEM SULAYMANIYAH



typical Stop
plan

typical Stop
profile

LIGHT RAIL TRANSIT SYSTEM SULAYMANIAH

front&Side
elevation

One way
shelter

Typical Stop
one-double shelter

double way
shelter

functionality

The tram stops along the various line have an average length of 35m and a minimal width of 2m. In some cases the tram stop will have a single shelter in the middle of the platform and parking in front of the stop may be not allowed in order to keep at least two lanes dedicated to the other vehicles.

- The stops were designed with the following criteria:
- safety for all passengers
 - high accessibility for all and ease in getting on/off of the vehicle
 - visibility and lighting
 - passenger information in case of emergency
 - comfort and information
 - structural standardization and easy construction
 - durability and maintenance
 - aesthetical aspects





LIGHT RAIL TRANSIT SYSTEM
SULAYMANIYAH



PANTELLERIA AIRPORT



CLIENT
ENAC

YEAR
2004/2012

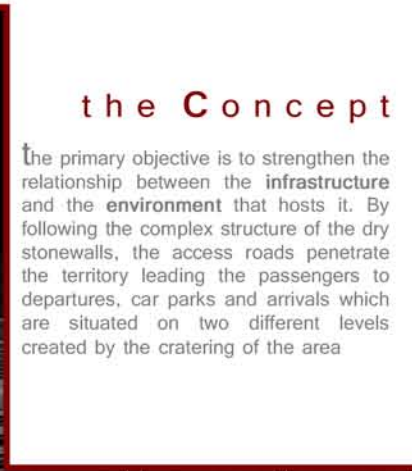
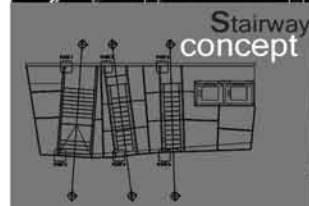
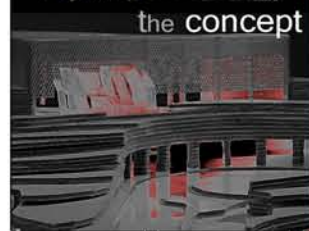
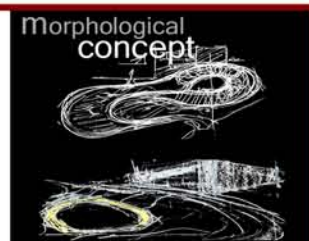
LOCATION
Pantelleria Island, Italy

TOTAL AMOUNT
15.720.000 €

ROLE AND PROFESSIONAL INVOLVEMENT
Concept, preliminary and architectural, civil and utilities detailed design

CURRENT STATUS
Built

PANTELLERIA AIRPORT



Context

The guidelines for the intervention were motivated by the wish to overlap the existing structure with a view to reinstating, **re-naturalizing** and re-creating an equilibrium with its natural surroundings

the Concept

The primary objective is to strengthen the relationship between the **infrastructure** and the **environment** that hosts it. By following the complex structure of the dry stonewalls, the access roads penetrate the territory leading the passengers to departures, car parks and arrivals which are situated on two different levels created by the cratering of the area

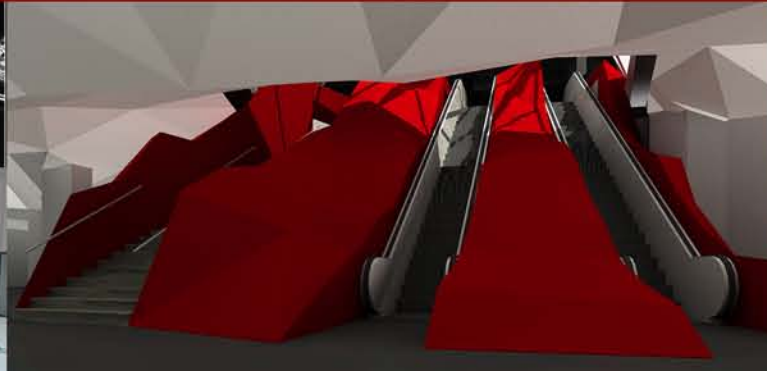
Nature integration

The philosophy at the origin of the whole project has been respectful of the natural environment and pursued the design of the structure as part of the hosting landscape.

By following the structure of traditional uncemented walls, the access road progresses into the countryside leading the passengers to departures, parking areas and arrivals. This layout has been put in place on two levels using a natural difference in elevation.



PANTELLERIA, ITALY



Pantelleria

General plan

PANTELLERIA
AIRPORT

Ground
floor plan

comfort and illumination

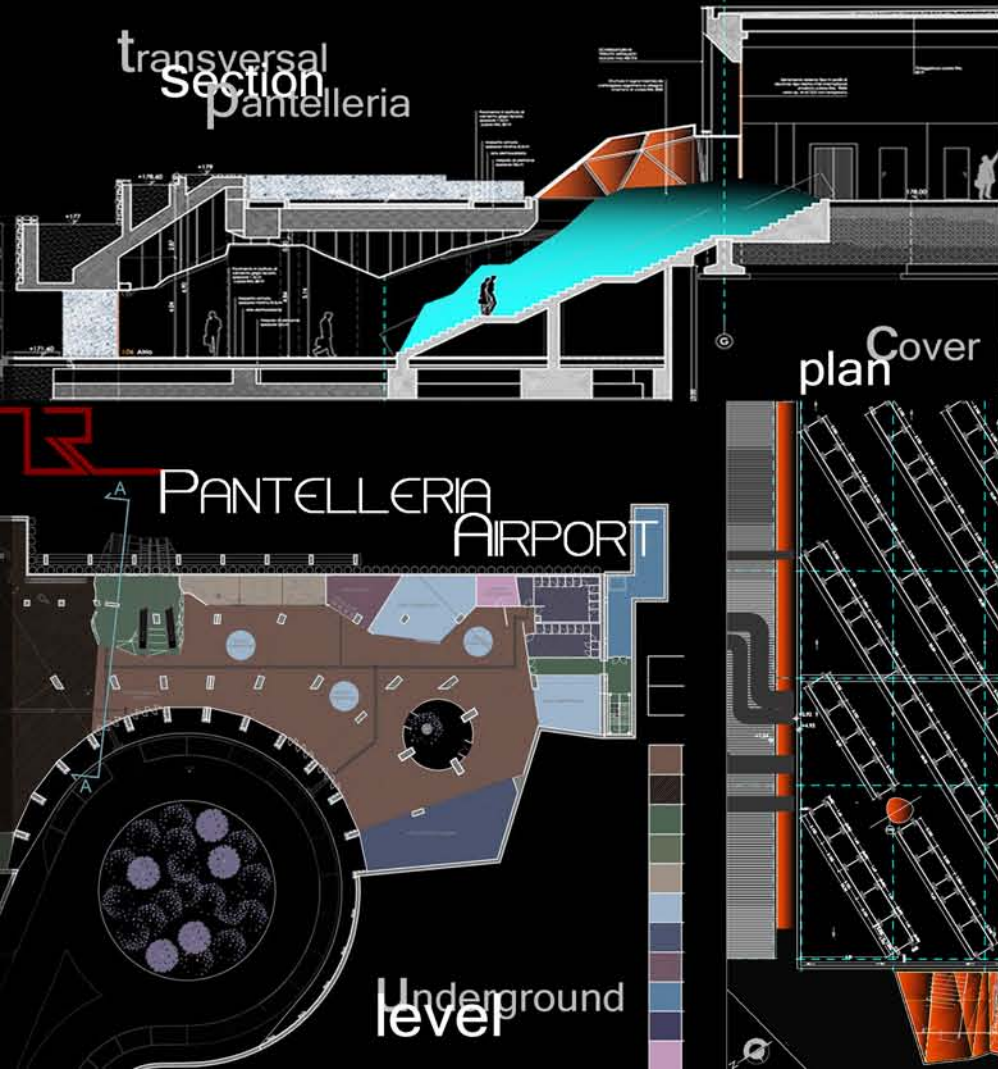
Externally, the metal mesh shielding the building allows external light to filter through rendering it all the more homogeneous and discreet. The additional lower ground floor is a shady, cool area with walls of chiaroscuro volcanic stone where rays of light filter through the "crater" and the Pantescan garden

Energy saving

With a view to making the airport buildings as energetically self-sufficient as possible, state-of the-art photovoltaic panels have been installed to provide energy for those activities which are not strictly linked to the main functions of the structure itself. Particular attention was paid to installing and orienting these panels on the roof of the main area in order to maximize their performance

Stairway
detail





function

The check-in area is located in the underground level behind a circular kiss and ride zone minimizing the environmental impact. Arrivals and Departures are located into the ground floor at airside level.

innovation

Existing building is covered by a new technological skin that transforms the volume in a sort of lighthouse, luminescent by night and opalescent in the daytime. The cover is equipped with solar panels that provide most of the energy needed to operate the airport







OLBIA GENERAL AVIATION AIRPORT COSTA SMERALDA



OLBIA GENERAL AVIATION AIRPORT - COSTA SMERALDA



CLIENT
GEASAR

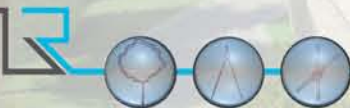
YEAR
2006/2009

LOCATION
Olbia, Italy

TOTAL AMOUNT
8,730,000 €

ROLE AND PROFESSIONAL INVOLVEMENT
Architectural, Structural and Equipment detailed design
in collaboration with Archigroup and Didier Lefort Architects

CURRENT STATUS
Built





OLBIA GENERAL AVIATION AIRPORT COSTA SMERALDA



Context

In recent years, the Olbia airport has seen significant increases in traffic, with forecasts of further growth that will lead the movement of passengers from 1,585,662 in 2004 to double in 2020 with an estimated 3,265,467.



the Concept

The project for the new General Aviation Terminal in Olbia stands out from the other airport buildings thanks to its distinguishing architectural features: the idea was to move away from the standard airport building; its external appearance is that of a "representational" building while the interior seems to be an exclusive club.

Materials

Local stone was used to merge the building with its surrounding vegetation, both externally and internally. The most visible part of the complex is its external cladding which is extremely thin, supported by slender, circular pillars, and which comprises the whole architectural complex.



OLBIA, ITALY



ground floor plan

transversal
Section

Elevation

the functional mapping of the new Terminal is the result of research into **passenger flows**, crews and operational staff within the Terminal and the combination of the characteristics and requirements of the various functions. This was carried out by means of detailed analysis of data concerning the following: air and passenger traffic; the managing company's requirements; operational methodology within the complex and the type of services being offered, with particular reference to baggage handling;

the management of boarding and deboarding of passengers and baggage and assistance and services for the crews; aircraft maintenance and a wide variety of ground services and assistance. Another distinguishing feature is the circular patio and its aquatic plants which are enclosed by a glass cylinder in the center of the building.

Particular Section





 OL BIA GENERAL AVIATION
COSTA SMERALDA



EDZ-MRCH-HOTEL-D



OLBIA GENERAL AVIATION
COSTA SMERALDA

SASSARI - OLBIA ROAD PROJECT LOT 3



CLIENT
Anas S.p.A.

YEAR
2013

LOCATION
Sassari - Olbia, Sardinia, Italy

TOTAL AMOUNT
120,000,000 €

ROLE AND PROFESSIONAL INVOLVEMENT
Final design : Design of road layouts , junctions and implementation phases, bridges , culverts and underpasses and flyovers , and hydraulic systems

CURRENT STATUS
Underconstruction





SASSARI - OLBIA ROAD PROJECT LOT 3



the Context
planning



the concept
sketch

Morphological
concept



the Context

The track of lot 3 has a length of 11,900 (from km 24 + 200 to km 36 + 100) and starts at the end of the adjacent Lot 2, near the junction Martis. The design of the new road axis, further alignment of the lot "2" in plano-altitude variant of the highway SS597, Sassari Olbia.

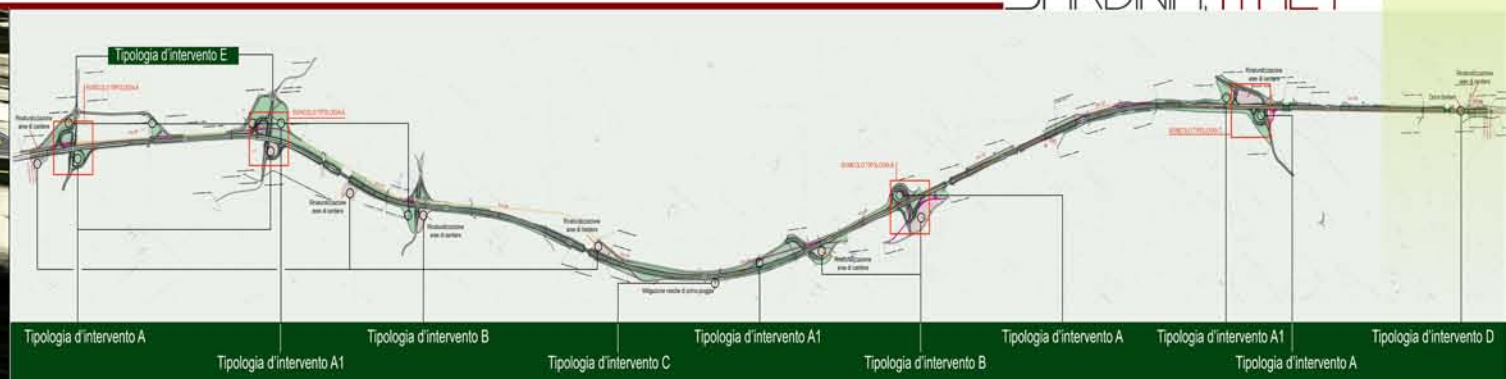
the project

Up to 29 km + 500 the highway SS597 ensures continuity parallel to the path of the project, from km 29 + 500 until the end of the lot 3 continuity is ensured with a series of local roads that cross at various points in the path of the project and attaching to the fabric of local road.



Road junction
typology A

SARDINIA, ITALY



Road junction
plan

ROAD JUNCTION

SASSARI - OLBIA
ROAD PROJECT
LOT 3

transversal
Section

elevation

functionality

The main works, provided in Lot 3 are:
Martis Junction, Tula Junction,
Intersection SS 597, Junction N°6,
Junction N°6A, Bridge PO01, Bridge
PO02 - Secondary roads, Bridge
PO02-bis - Secondary roads, Bridge
PO05-Rio Mannu, Bridge PO06-Rio
Cuzi, Bridge PO07-Rio Pentuma, Bridge
PO08, Bridge PO09, Viaduct km
34+500,

For the continuity of part of the
secondary roads: Underpass SO06,
SO07, SO02, SO03.

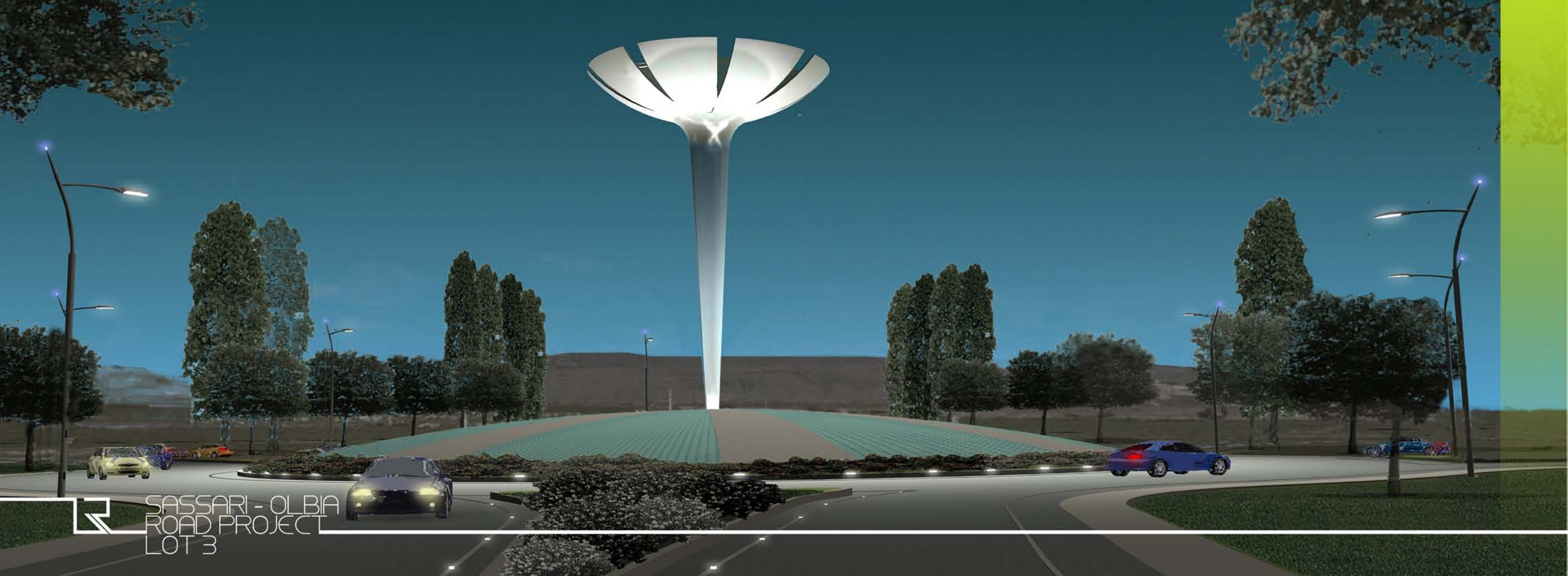
Waste-water platform, properly filtered
by new works of defense provided
along the route, discharging into the
existing hydraulic lattice. For hydraulic
continuity under the track, have been
provided for works of adequate size, in
light of new specific hydraulic, resulting
flood of 2011.

Accesses to agricultural funds are
guaranteed through the implementation
of a series of roads co-planar and
reconnections to the fabric of local road
variously interconnected with the
existing network.



the concept
sketch





 SASSARI - OLBIA
ROAD PROJECT
LOT 3



SASSARI -OLBIA ROAD PROJECT LOT 8



CLIENT
ANAS SpA

YEAR
2013-2016

LOCATION
Sardinia, Italy

TOTAL AMOUNT
101640.982 €

ROLE AND PROFESSIONAL INVOLVEMENT
Transport infrastructural and equipment final design

CURRENT STATUS
Built





SASSARI - OLBIA ROAD PROJECT LOT 8



the Context

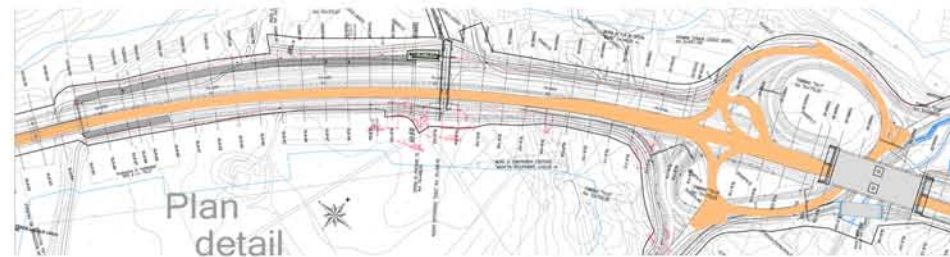
the Context

The route of lot 8 is an integral part of the overall project of modernization of the route Sassari - Olbia (SS 597), that the current section to one lane in each direction, will be brought to Type B - the main country road, with separate carriageways separated by a central reservation or impassable and 2 lanes in each direction. The implementation of the new infrastructure ensures the strengthening of the internal cross road link between Sassari and Olbia with a consequent reduction in journey times that, in fact, facilitate the connections of the small towns insistent infrastructure with major poles of attraction of Sassari and Olbia.

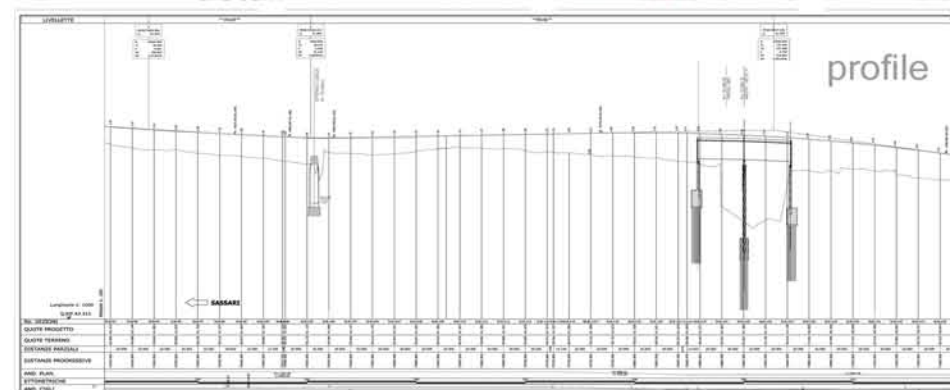


the project

The design of the main axis, begins the gradual km 68 +600, end of lot 7. Further below the alignment of horizontal and vertical alignment on the north side of the body existing road (on the left) and ends at the beginning of the lot 9 (programmable km 76 +992). For most of the route follows the development of the existing abutments, except for a slight deviation at the km 72 +500.

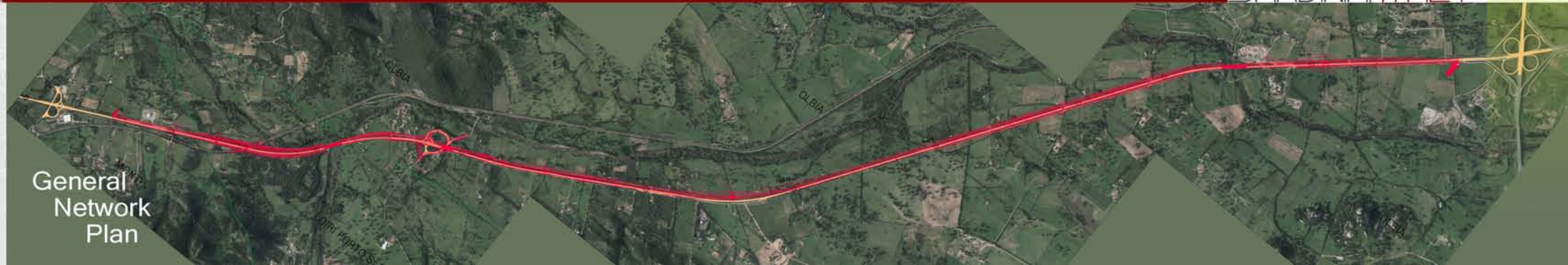


Plan detail

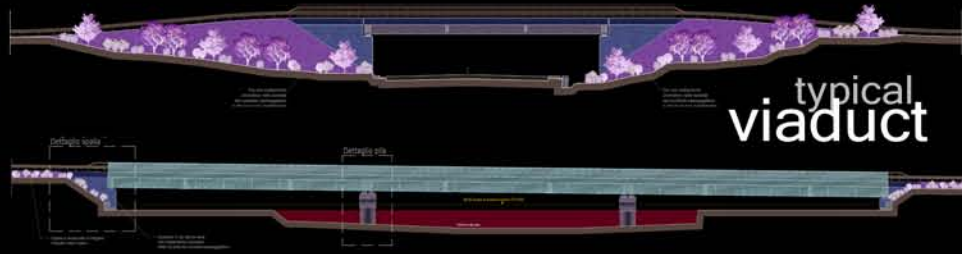


profile

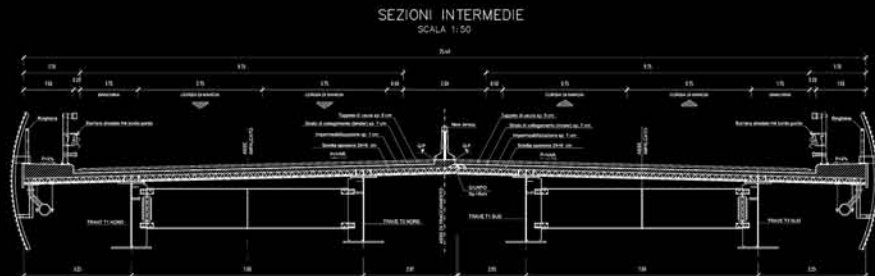
SARDINIA ITALY



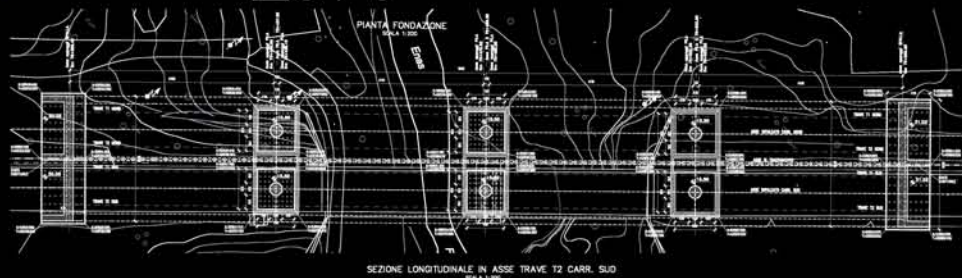
General
Network
Plan



typical
viaduct



SASSARI-OLBIA ROAD PROJECT LOT 8



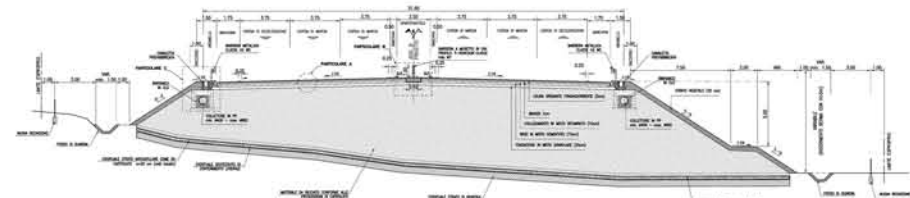
functionality

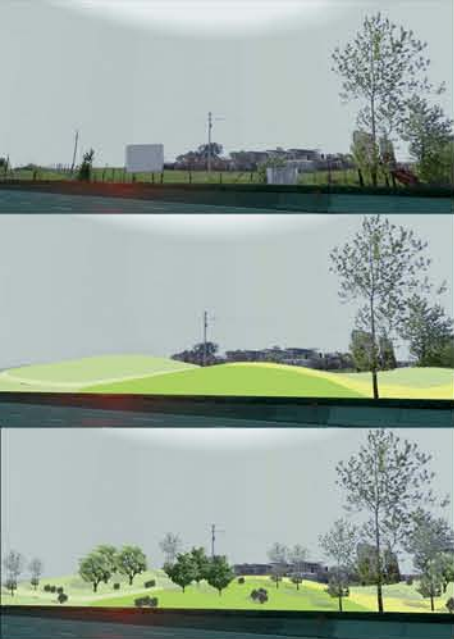
In order to ensure continuity of operation on the North / South of local roads caught several works have been planned to cross the viability of the project. Access to agricultural land , originally served by the SS 597 , were secured through the implementation of new sections of road co-planar , interconnected with the existing road network. This will involve the adjustment of the Intersection of Enas , free partial cloverleaf , with ramps in two adjacent quadrants . It upgrading the existing infrastructure as the main country road , with two lanes in each direction , separated by a central median and the range of design speed of between 70 and 120 km / h .

All these aspects together with the choice of an appropriate plan profile trend contribute to the increase of the operational safety of the work in question , especially if compared to the bad geometry that distinguishes the current street made , as mentioned , even more dangerous by the presence of frequent intersections flush .



typical
cross section





Mitigation Works

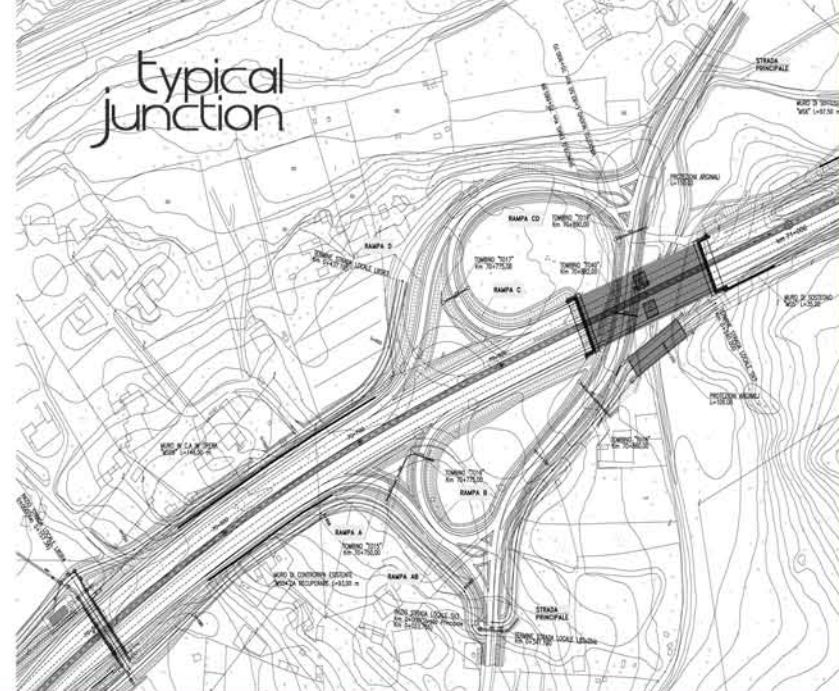


elements

The main advantage of the track is its minimal impact in terms of occupation of the territory and, in the sections variant, the maintenance for local traffic, where possible, of the roadway to guarantee the continuity of longitudinal along the trunk road network by configuring a local continuous and more or less parallel to the new corridor, frequently interconnected to this at junctions and endowed with good geometrical features. Another important advantage achieved by the choice made is the one connected to works of art, as a planned route alongside allows you to create new works from scratch without interfering with existing ones.

The bridges, overpasses and viaducts are listed below :

- Overpass km 69 +026
- Overpass
- Bridge Km 69 +320 - secondary roads
- Bridge Km 69 +320 - main roads
- Bridge Rio Palasole
- Bridge km 70 +855_LSV3
- Viaduct at Km 70 +900 - Enas junction
- Bridge Km 72 +588 - main roads
- Bridge Km 72 +588 - secondary roads
- Bridge Rio ENAS



SASSARI-OLBIA ROAD PROJECT LOT 8

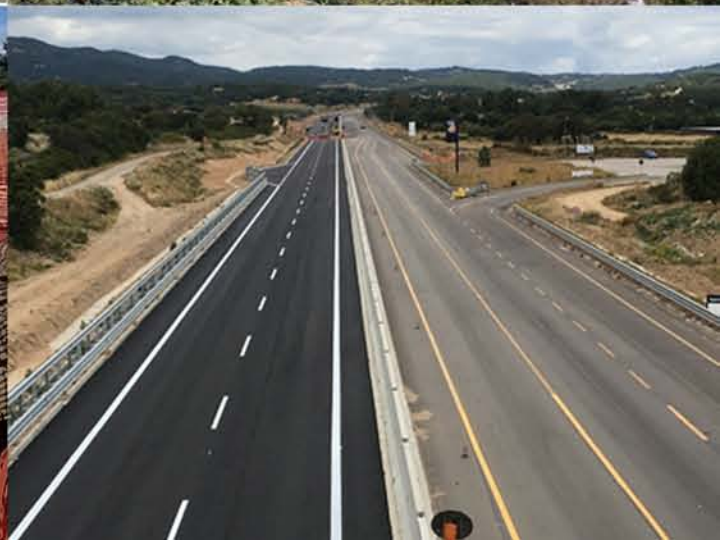


JUNCTION CROSS ROAD DETAILS



Railway Overpass







PINCIO MULTI LEVEL PARKING



CLIENT
ATAC

YEAR
2007-2008

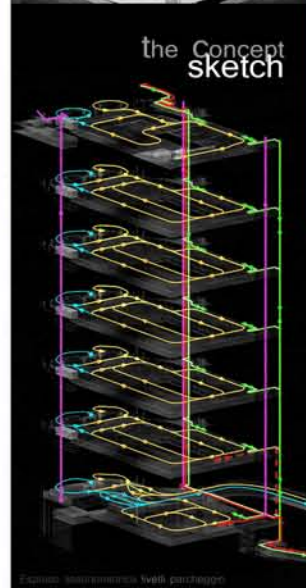
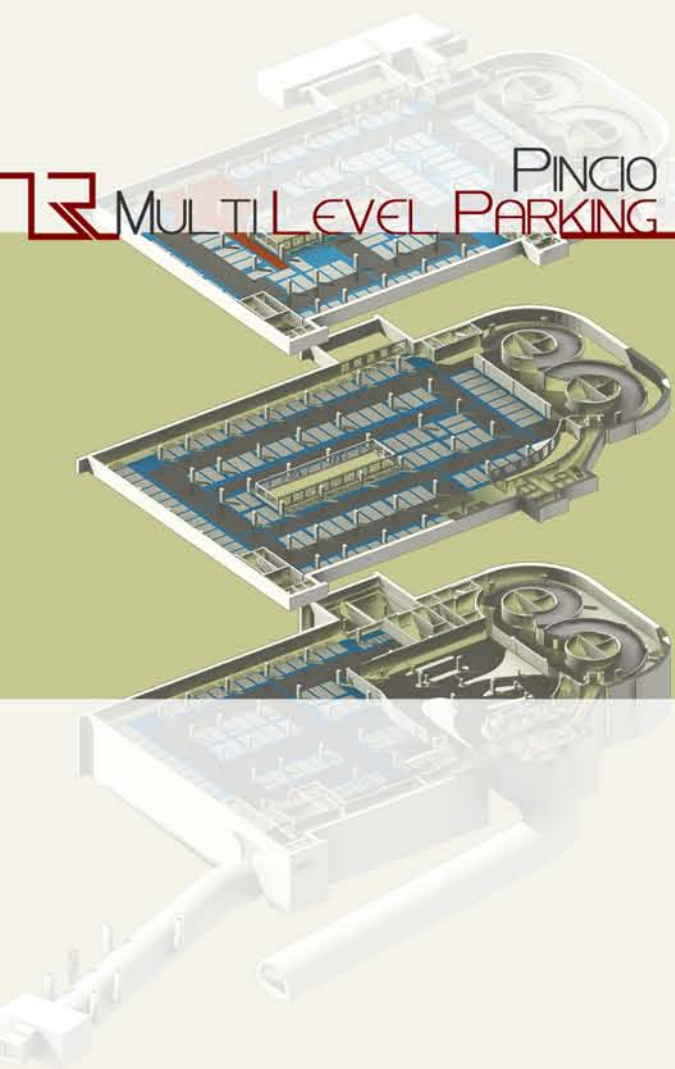
LOCATION
Rome, Italy

TOTAL AMOUNT
29.790.000 €

ROLE AND PROFESSIONAL INVOLVEMENT
Design for construction of civil works and civil services

CURRENT STATUS
Project



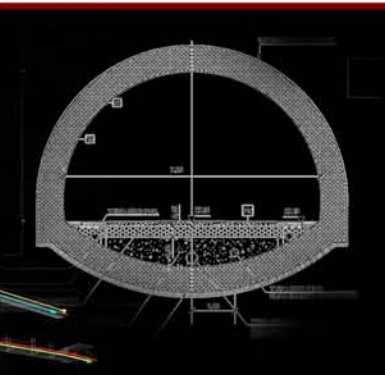


Context

the project is located in a strategical position, under Piazza Napoleone I, in a hill in the northeast quadrant of the historical center of Rome. The hill lies to the north of the Quirinal, overlooking the Campus Martius.

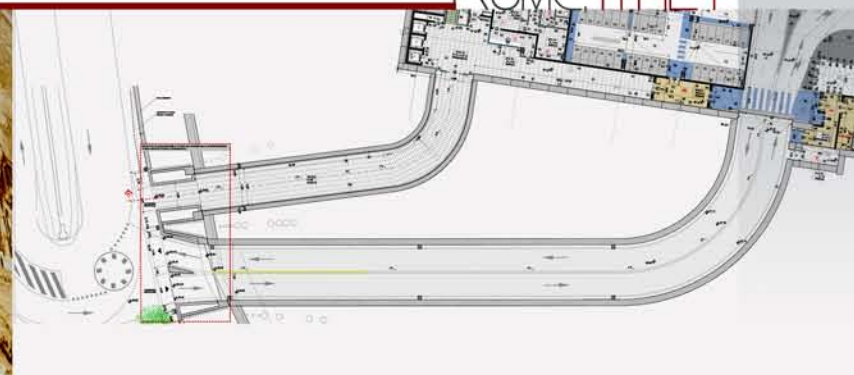
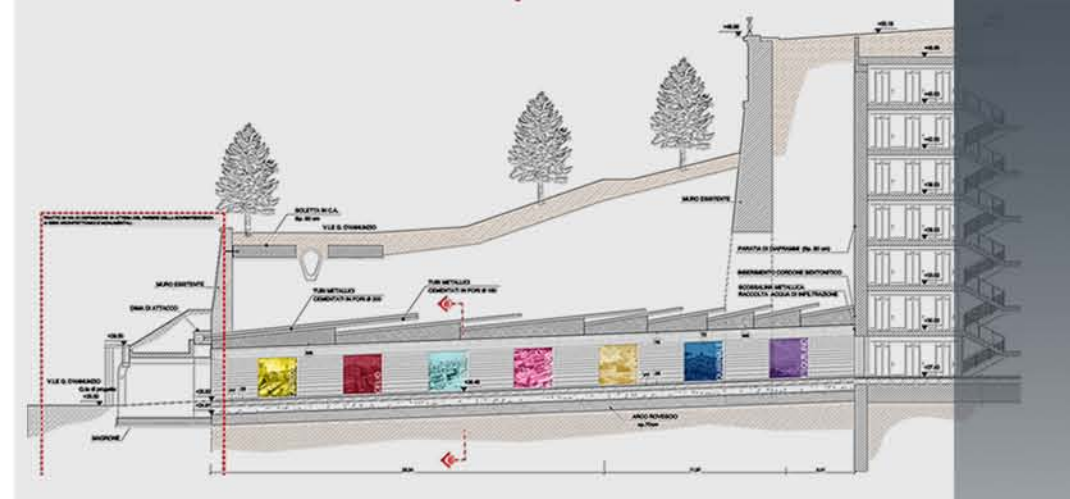
the Concept

Integration between public space and parking: people meets in a **fluid space**, where different functions are **mixed** and public space concept is revolutioned.



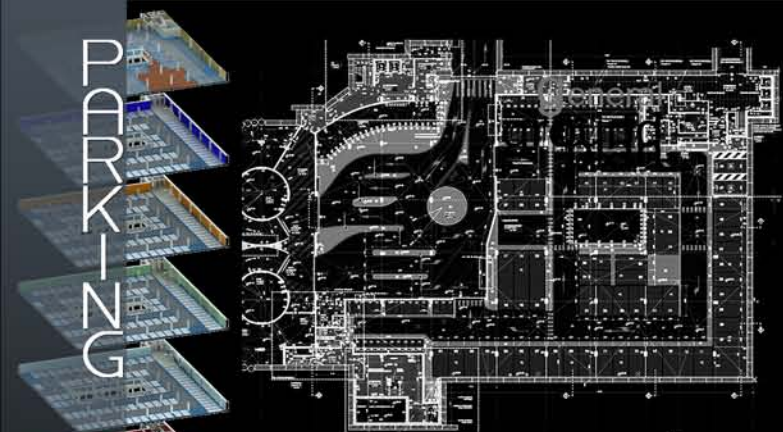
the project

the garage built under Piazza Napoleone I has seven levels, whose six are for parking with access from the lowest level by mean of a road tunnel with access on Viale Gabriele D'Annunzio. The vertical connection for cars between different levels has been provided with two one way ramps. Pedestrians will use to staircases opposite to each other and five elevators. There are also escape stairs with an escape way segregated from all other exits. Pedestrian access to the garage is provided through a dedicated tunnel next to the road one.



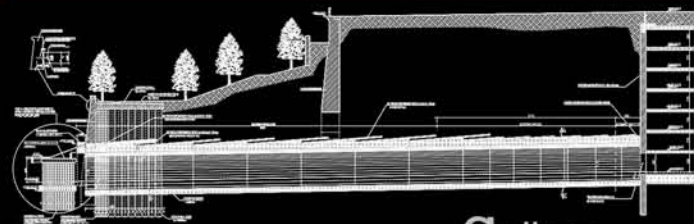
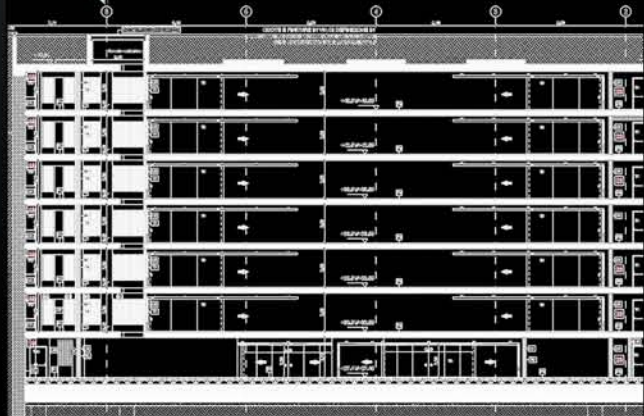
ROME ITALY

PARKING



ground plan

PINCIO MULTI LEVEL PARKING



Longitudinal Section

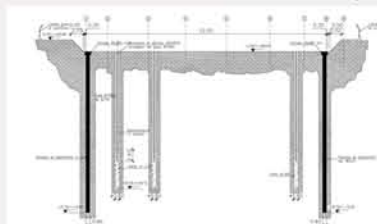
functionality

The parking area involves the construction of seven underground levels on an area with an extensible inset on a rectangle of approximately 55x90 m. Due to the high depth to be reached, about 25 m from the countryside, and the delicate monumental and landscaping context in which it works, the excavation of the parking will take place with the method called "top-down", which consists in the realization of part of the horizontal structures (solai) during the excavation phase ("downhill"), thus minimizing the impact of the yard on the external environment.

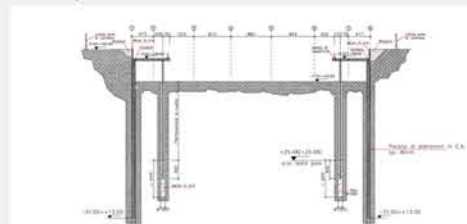
The design philosophy has been aimed to the preservation and valorisation of the historical and artistic setting of the area. This has always been kept as a reference in the approach to the design issues. The peculiar situation, with a high sensitivity under the archaeological point of view, has drawn a lot of attention both for management of the design process and for the design itself. Every component of the structure has been carefully evaluated keeping in mind possible interaction with the surrounding environment.



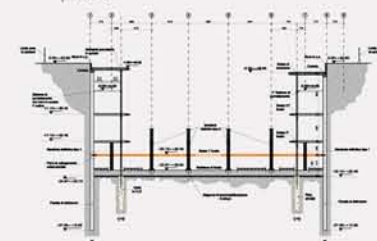
phase 1 Constructive phases with top-down method



phase 2



phase 3



phase 4



phase 5





XIAOSHAN DISTRICT MASTER PLAN HANGZHOU



CLIENT
HANGZHOU MUNICIPALITY

YEAR
2010

TOTAL AMOUNT
277,000,000 €

LOCATION
Hangzhou, China

ROLE AND PROFESSIONAL INVOLVEMENT
Urban and concept architectural design
in collaboration with ECADI

CURRENT STATUS
Third place in the international competition



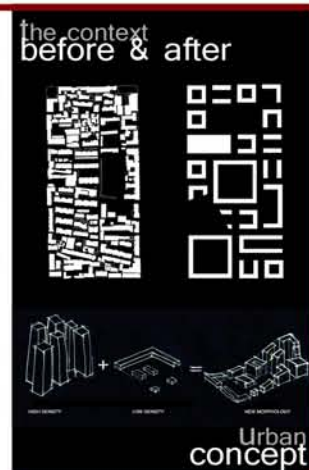


Context

An existing District from the '60s which has little architectural and urban characterization, with a typical peripheral housing needs to be re-invigorated both aesthetically and functionally

Morphology

The system of volumes stemming from the morphological variations have been intersected across their height by a single surface structure in the form of a double curve which draws the whole design together



the Concept

Design an avant-garde performing image with high technological efficiency, but respectful of the environment, in harmony with the basic elements: air, earth, water and fire

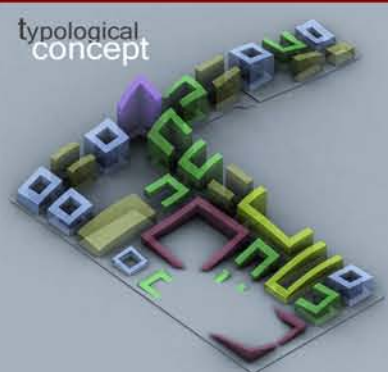
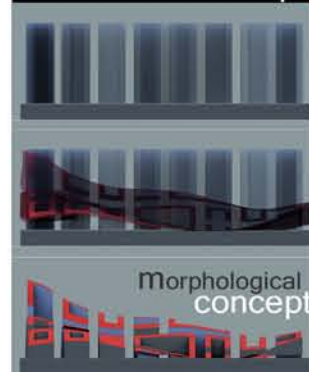
Urban concept

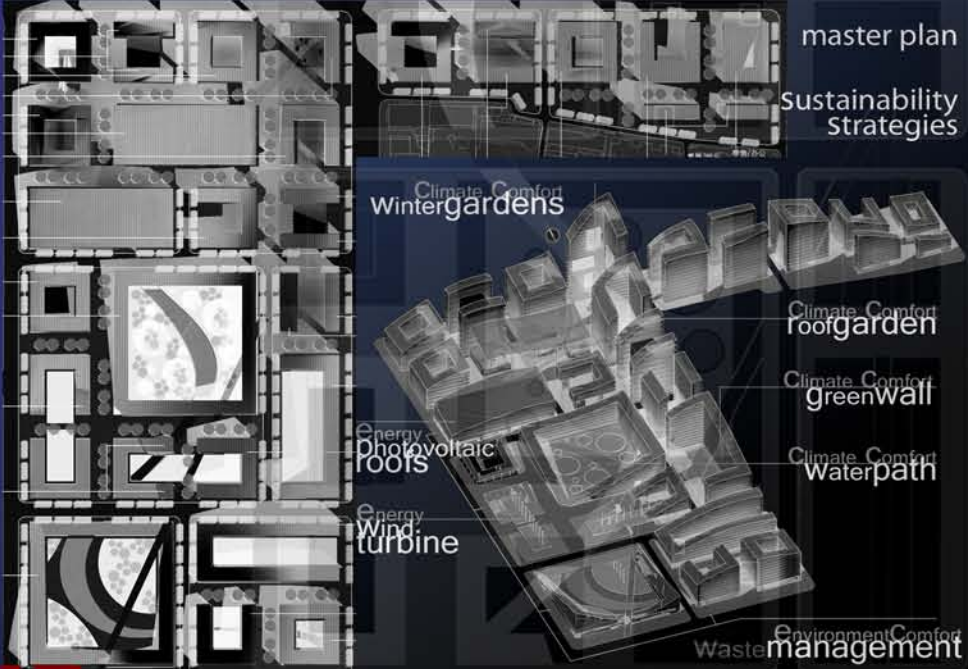
The project aims to provide the basis and fulcrum of a new "urban centrality" (epicenter) in the district of Xiaoshan through the common use of high and low density combined into a single morphological sign

distribution

From a functional standpoint the project can be defined as a "microcity" with his functional areas and an internal network of connections between these functional areas. Following the most advanced functional criteria we have adopted the strategy of "functional mix"

HANGZHOU, CHINA





master plan

Sustainability Strategies

Wintergardens

Climate Comfort
Roofgarden

Climate Comfort
GreenWall

Climate Comfort
Waterpath

Energy
Photovoltaic
roofs

Energy
Wind
turbine

Environment Comfort
Waste management

XIAOSHAN DISTRICT MASTERPLAN HANGZHOU

mobility

The intervention was designed as a "micro-city", with its interior of a **dense network of connections** between its parts and functional areas

Sustainability

The proposal suggests the widespread use of **renewable energy sources** such as solar, wind and geothermal energy

Solar energy

All the buildings are covered with high efficiency **photovoltaic panels** that make energy self-sufficient most activities that take place indoor

water recycle

Water resources will be carefully managed through the **reduced use of drinking water** purification and reuse of gray water, collection and reuse of rain-water

green

Green areas, in fact, absorb and retain part of stormwater, help to **mitigate the local climate** and reduce the urban heat island effect

wind turbines

The project involves the installation of wind turbines in the most exposed areas to the wind action to produce electricity to be reused in the district

waste management

The project provides **waste management** through automated collection





XIAOSHAN DISTRICT
MASTERPLAN | HANGZHOU





RESIDENTIAL COMPLEX IN CHINA



CLIENT
Private

YEAR
2016

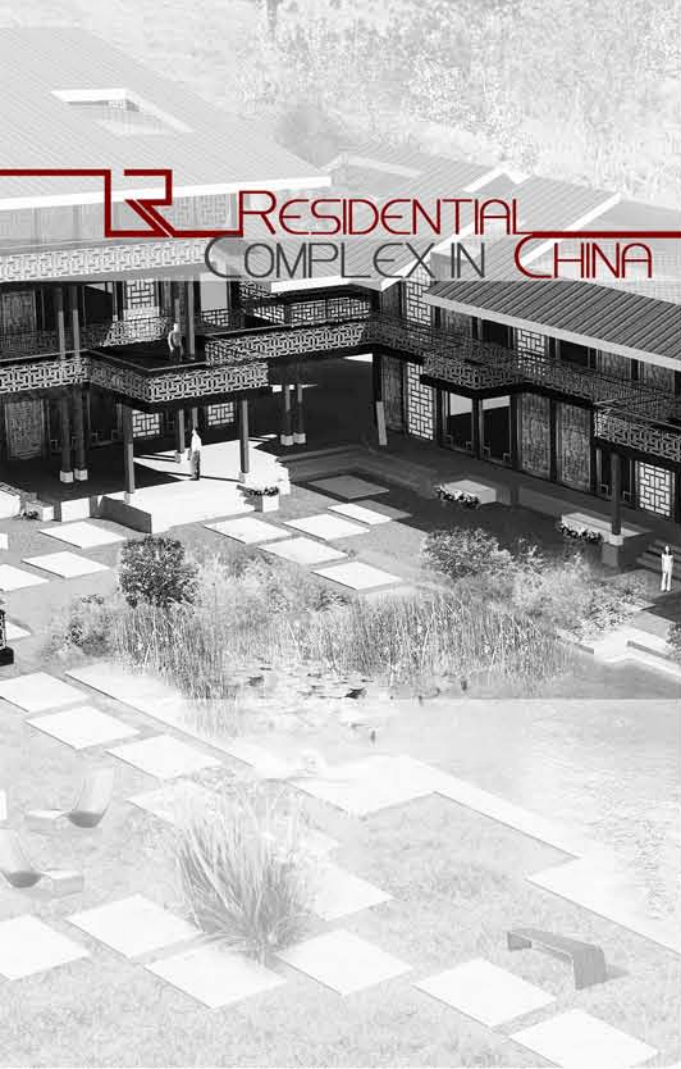
TOTAL AMOUNT
1000.000 €

LOCATION
China

ROLE AND PROFESSIONAL INVOLVEMENT
Architectural concept design

CURRENT STATUS
Project





Context

the project will be placed in a wonderful setting, surrounded by the beauty of the green and river water, a residential project that is an integral part of nature.



the concept

the proposed project by us arises a twofold objective: on one hand to fully meeting the requirements of the Customer, playing thoroughly your special request and on the other to achieve a formal outcome totally new and rather innovative, trying a summary and a pleasant blend between the contemporary and innovative design, in line with the latest western standards and the traditional Chinese culture.

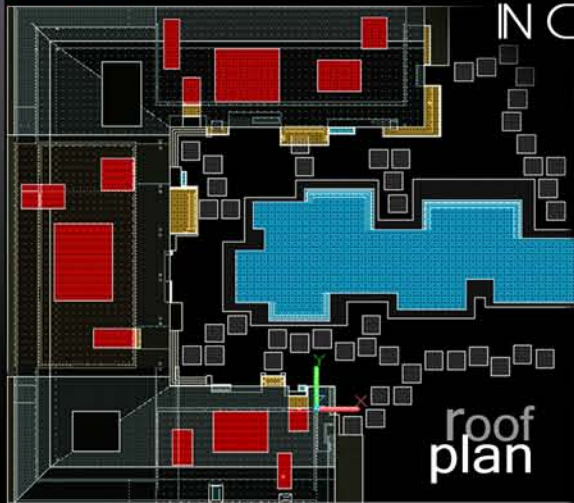


the project

the morphology of the building puts together a modern concept and elements of Chinese educated tradition, into one unified and harmonious design. In particular, the coverage – archetypal element in itself in many traditional cultures – it has been treated in a "contemporary" way, through the continuity with the external wall, forming a "shell" shaped roof, that surrounding the three volumes of the residences. Viewed from the outside, this shell gives at the residential complex a strong character, power and prestige, as the fortresses of the ancient Chinese rulers. The union of the three volumes in a single design become a strong sign able to dominate the surrounding landscape.



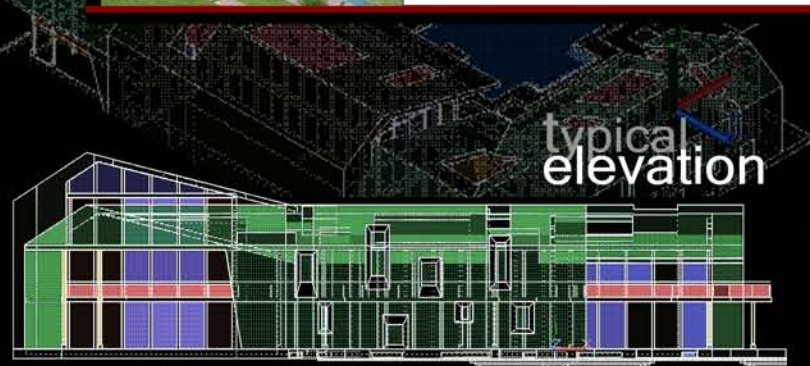
CHINA



functionality

Great importance was given to the orientation of the complex, defined in its broadest outlines by the Customer, and it is taken into account in all of the detail choices by the Designer. Functionally, the main choice is consisted in organizing the three volumes, initially separate, as into one unified design. It has been reached in two ways: through the extension of the coverage building beyond the perimeter of the buildings in order to rebuild a unique courtyard in a "C" shaped and adopting a uniform architectural language for the entire complex.

The continuous coverage allowed us to create a new and interesting spatial areas at various levels, enhancing the spaces between one building and the other, that by simple empty of result become the outside of the monumental entrances, the gardens and playground area on the first floor. The outer cover openings represent innovative architecture elements, useful, both for the distribution of natural light from the outside towards the inside of the apartments, but also to offer a reserved places for private use. These terraces will be covered by photovoltaic floors walked on for the production of renewable energy.





MULTIFUNCTIONAL COMPLEX

- ANAGNINA
- MONTEMARIO



CLIENT
Inprogest spa

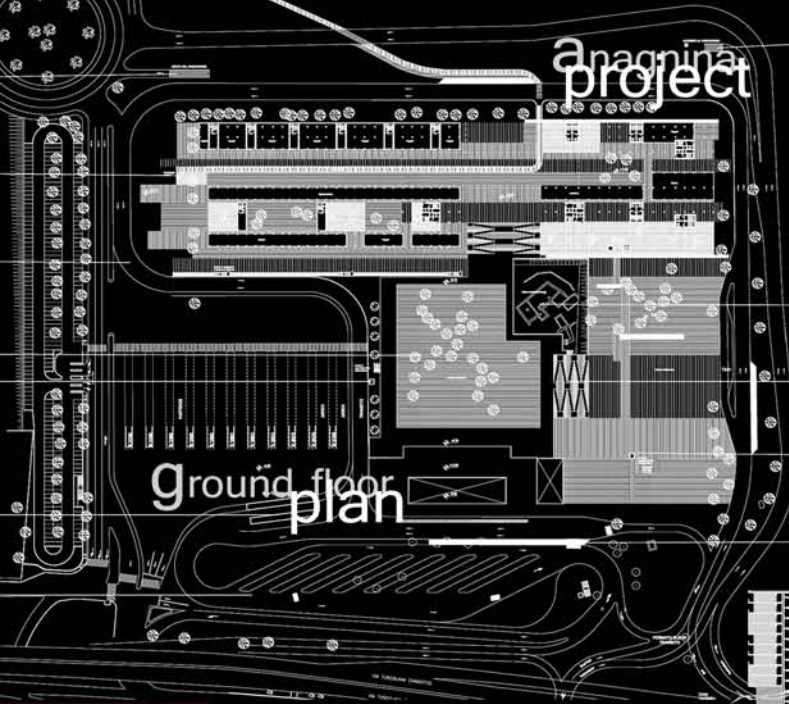
YEAR
2011

LOCATION
Rome, Italy

ROLE AND PROFESSIONAL INVOLVEMENT
Concept, preliminary and architectural, structural and equipment design

CURRENT STATUS
Concept award





Context

the interventions of urban densification in the city of Rome envisage the construction of 17 multi-functional structures close to metro and railway stations.

The underground line A metro station of Anagnina is situated in a peripheral but strategic district close to the Ring Road, that can be considered the gateway to Rome. This location is one of the biggest interchange stations and has an urban and suburban Bus terminal on the ground level.



the Concept

this high-density complex becomes a center of attraction thanks to the transportation infrastructures nearby. Such major function needs to be expressed through a **symbolic morphology**, that characterizes the area and its identity.

the project

the multifunctional complex of Anagnina primarily aims at creating a new urban hub in the city of Rome.

This project mainly proposes integrated interventions that can not only provide a significant amount of community services to citizens but also solve the chronic problems of traffic and public transportation of the entire affected area.



Montemario project

Context

Project area has an extension of 11.984 sq.m. and coincides almost perfectly with actual parking and bus station area. This area is composed by different urban structures with high level of transformability.

the Context the concept sketch

the Concept

The multifunctional complex of Montemario aims primarily to provide a **new model of integrated intervention**, which in this case, in addition to ensuring an effective response to needs in existing residential location, is also capable of giving quality and functionality to the node exchange. The morphology adopted is based on the concept of **continuous variation**, a process that allows to create buildings varied geometrically by a unitary and continue form. A **unique volume** achieved through folds in space that can accommodate various geometric shapes and different building types.

It spreads from the end of the residential tower, which later evolves into a building with a gallery with a central courtyard. The end of that volume is spread over a bridge via Cesare Castiglioni, and later evolves into a linear building. The fourth part of the building is a bridge that crosses the road above the railway line (FR3): so it realizes integration with the railway station Montemario. It welcomes commercial functions and public facilities.



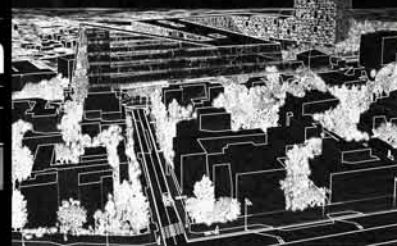
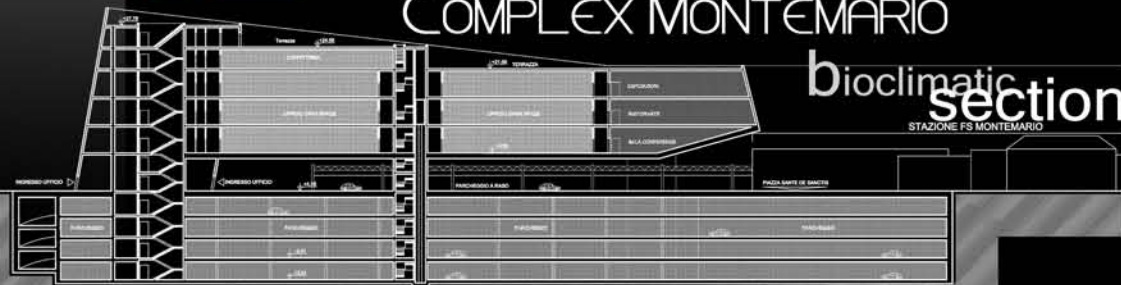
Ground floor plan

concept morphological

MULTIFUNCTIONAL COMPLEX MONTEMARIO

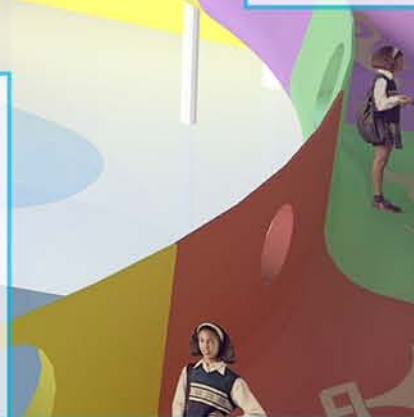
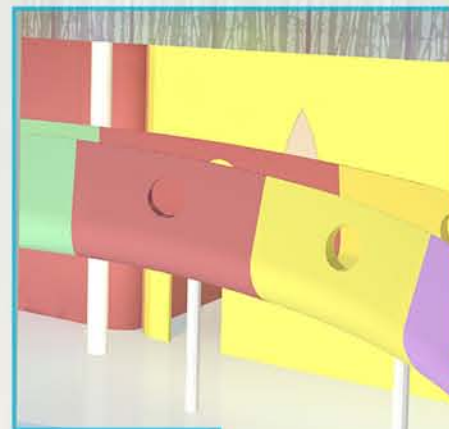
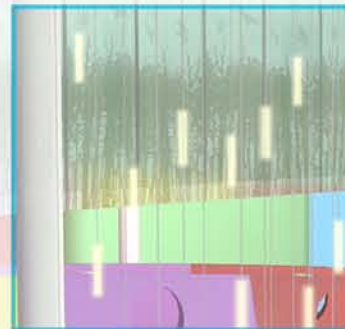
bioclimatic section

the tower concept typological





AL TOUFOULA CHILDHOOD CENTRES RIYADH



CLIENT
AL AYUNI CONTRACTING & CO

YEAR
2009-2011

TOTAL AMOUNT
27340.000 €

LOCATION
Riyadh, Saudi Arabia

ROLE AND PROFESSIONAL INVOLVEMENT
Concept and Architectural Structural and Equipment Detailed design

CURRENT STATUS
Built





AL TOUFOULA CHILDHOOD CENTRES RIYADH



The Context



the concept
sketch

the concept
"a serious game"

Context

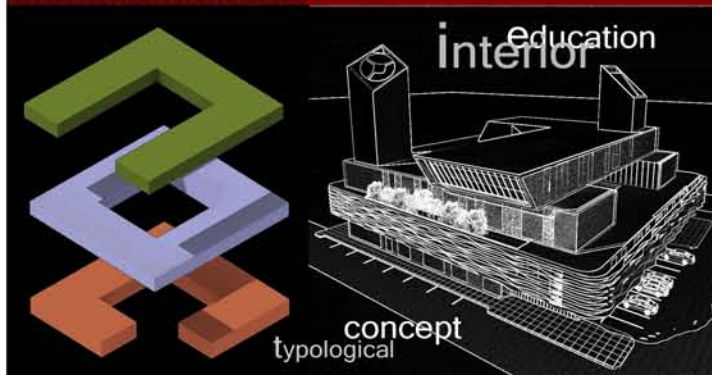
The urban context of Riyadh City is characterized by a very dynamic reality: a lot of new buildings under construction introduce the visitor to a fast changing landscape.

Urban concept

We wanted to give strong recognition to buildings within the urban context through a careful use of forms and colors to draw attention and be easily distinguishable from the rest.

the Concept

The simple and stereometric volumes express the purity and simplicity of the children's world, but also the severity and importance of education.



Education
interior

concept
typological

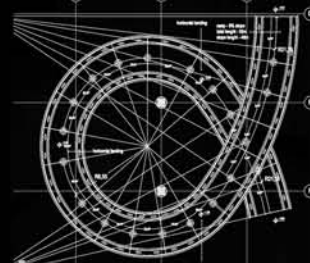
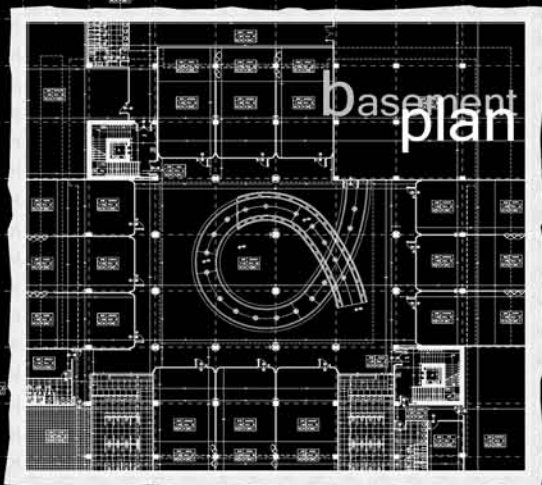


al rawabi
school

Riyadh, Saudi Arabia



assweidi
school



general strategy

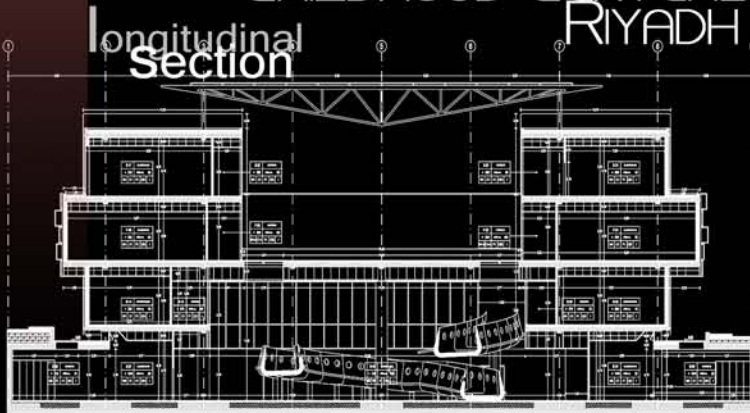
The commission includes the working drawings, specifications, and bills of quantities for 6 schools in Riyadh in 6 different locations within the city. The names of the 6 schools are as follows: 1. Al Rawabi (pilot project), 2. Quarnatta, 3. Al Sahafa, 4. Al Falah, 5. Al Nafi, 6. Assweidi. The first school (Al Rawabi) has been operational since the start of the school year 2011-12.

functionality Safety salubrity

The buildings speak for themselves: they become self-marketing and represent and promote a unique image and interpretation of child education. Each building will house a kindergarten (ages 3-6) and a primary school for children aged 6-12. The kindergarten will host 300 children, while the primary school will host 320 pupils to include both boys and girls. The main objective of this project is to make the buildings as distinctive as possible.

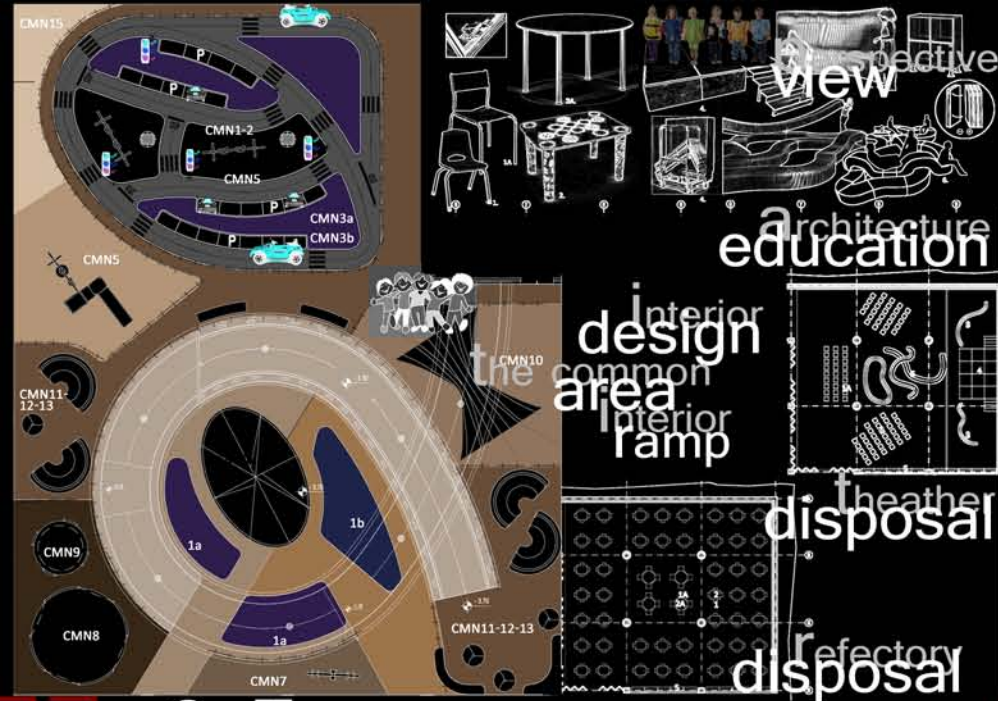


AL TOUFOULA CHILDHOOD CENTERS RIYADH



architecture education



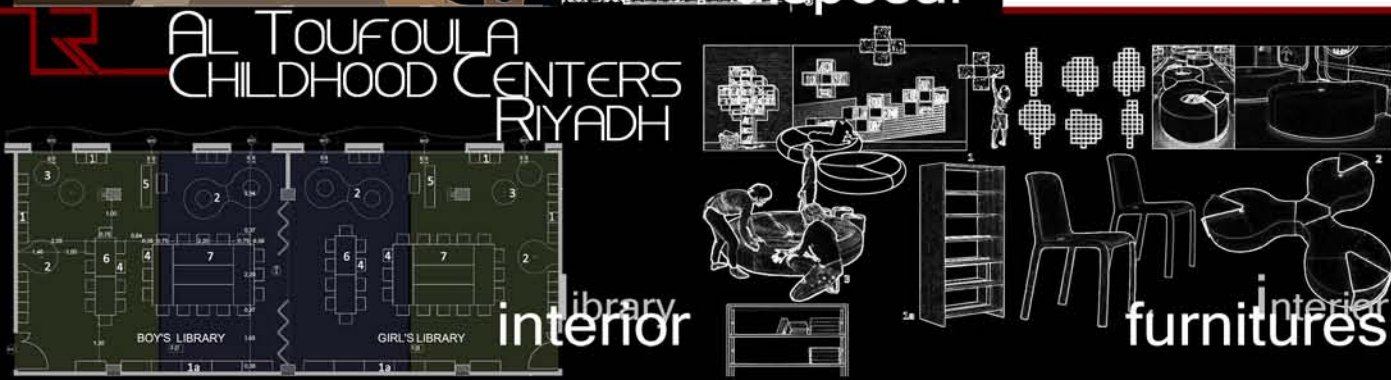
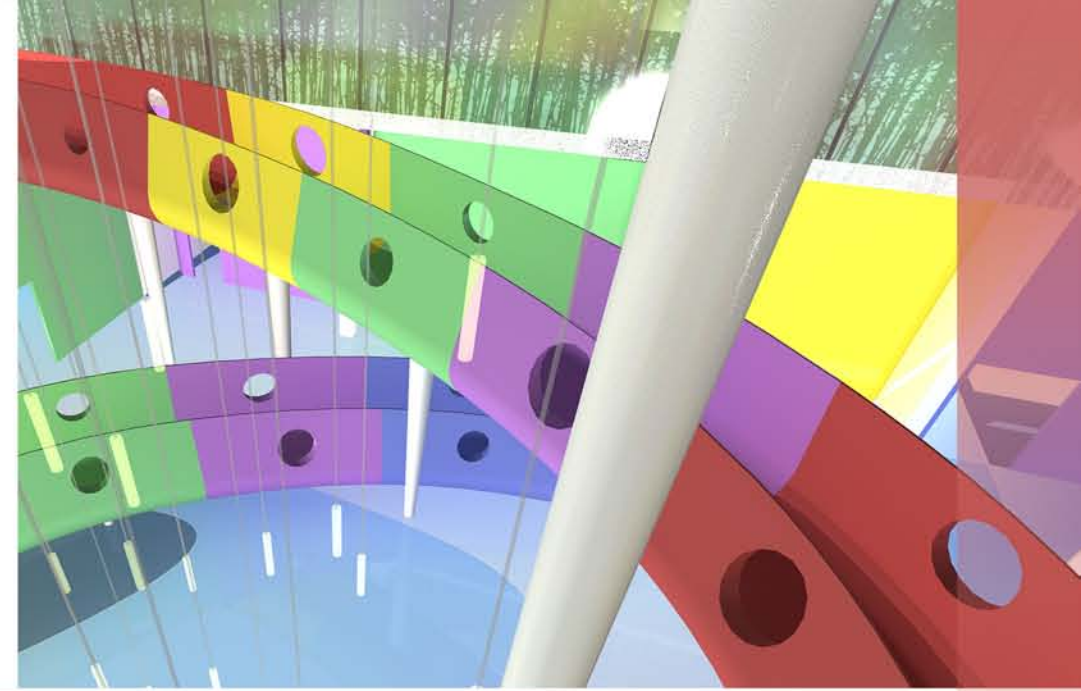


functional aspects

The features take into account specific urban planning regulations as well as the climatic characteristics of Riyadh. The court becomes the focal point of the entire building, a "common space" where the pupils can play, eat and socialize. It performs the same function as the open air play areas of western schools.

interior design

Every element is thought not only in a functional point of view. For example the lower ground floor is accessed by means of a spiral ramp which reminds us of a children slide. It bears colored symbols and indications to lead kids to the assigned classrooms.









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ISO 9001:2008 QUALITY SYSTEM

Updated July, 2017

