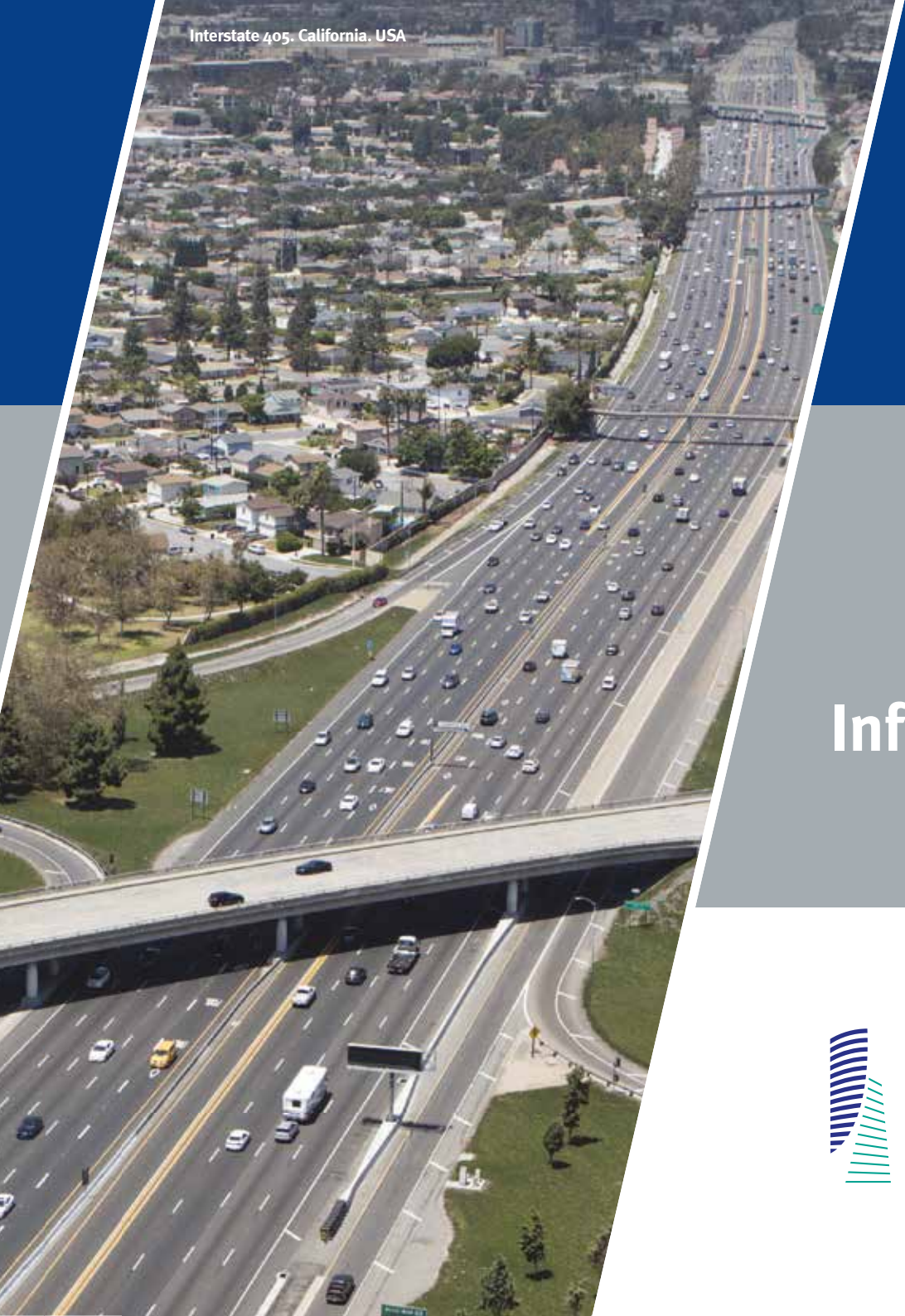


Interstate 405. California. USA

Monograph

Road Infrastructures

OHLA
Progress Enablers

Index

2021 Edition

Introduction

Backed by more than 100 years of experience, OHLA is a global infrastructure group specializing in construction of ports, airports, railways and roadways. Specifically in the roadway area, the company has built over 6,000 kilometers.

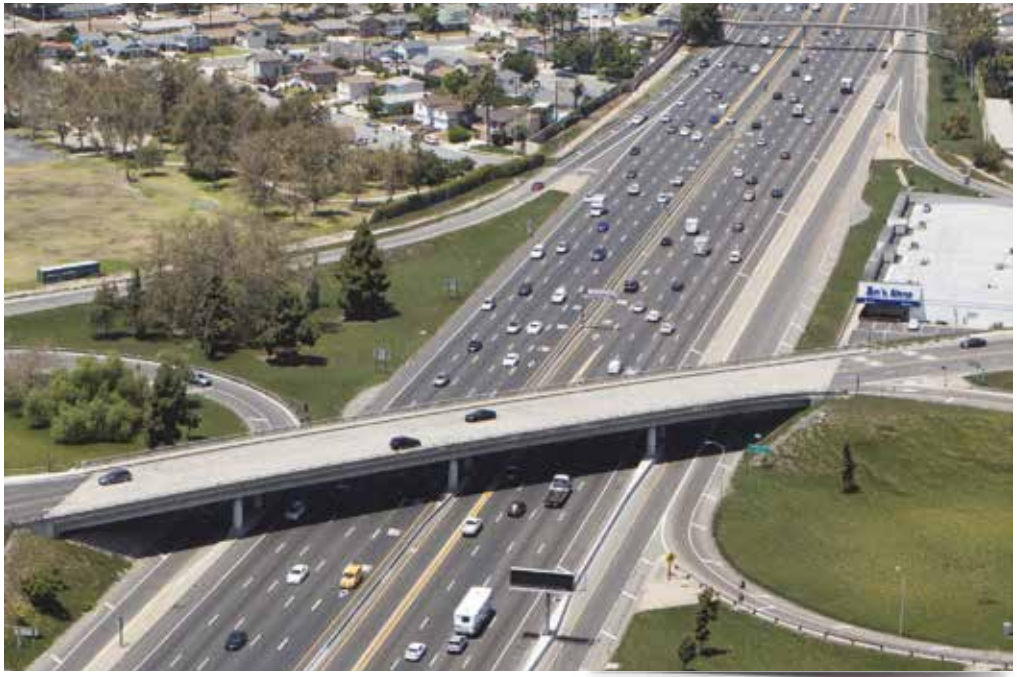
Its portfolio and solid trajectory are a result of the company's proven ability to carry out the integral process of an infrastructure project, from design and construction, to finance, operation and manteinance.

With operations in five continents, outstanding is the section of the Rozas-Villalba Highway in Madrid executed in the 70's, one of the first projects of its kind to be carried out in Spain with international specifications. Internationally, a reference is Interstate 405, the largest project awarded in the United States to date.

The company has executed landmark projects such as the construction of the viaduct over the Barrios de Luna reservoir (Spain), which, at that time, held the world record for spans on a cable-stayed bridge with cement slabs and the Gdansk tunnels (Poland), in which the company has achieved the position of being the first Spanish company to execute a tunnel under a river navigation channel using a hydraulic type tunnel boring machine, with an excavation diameter of 12.60 meters. Outstanding in the USA is the design and construction of the largest highway interchange in Miami, the SR 826/836. Reference must also be made to the tunnel of the Madrid Airport Highway Link (Spain), the best and safest in Europe, as per the EuroTAP 2006 report.

In the field of RDI, has extensive experience in the development of bituminous mixtures, roadbeds and asphalts. The company has participated in initiatives such as LIFE Equinox (superficial treatments for asphalt pavements which eliminate the nitrogen oxide in urban areas), and in the European investigation consortium NeTTUN (New Technologies for Tunneling and Underground Works), for the development of new processes in the scope of subterranean and tunneling work. In the area of digitalization, a significant achievement was the implementation of the BIM (Building Information Modeling), which allows digitalization of the constructive processes throughout all the phases of a project, and the use of advanced technology for topography work as is the use of drones.

INTERSTATE 405. CALIFORNIA. USA

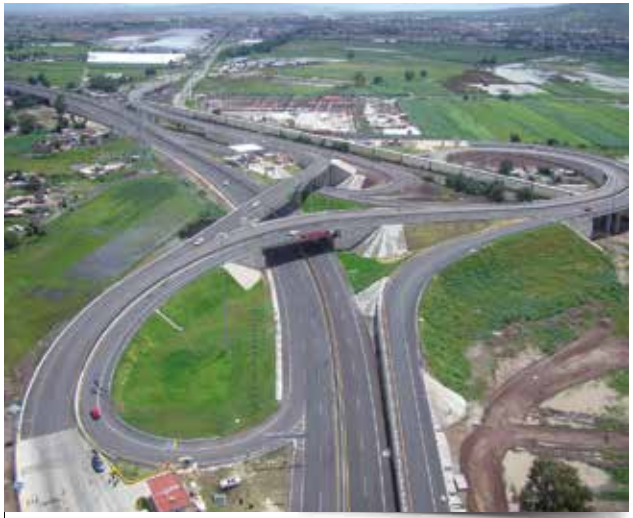


Client: Orange County Transportation Authority (OCTA)
Completion date: under construction
Budget: 1,116.0 million euros

It is the company's largest contract awarded in the United States. This design-build project will improve 25.7 km of I-405 (from State Route 73 to Interstate 605) in Orange County, CA. It includes the construction of additional lane in each direction from Euclid Street to I-605 and the improvement of highway on/off ramps, merge lanes, and bridges. The contract also includes the construction of express toll lanes in each direction, from State Route 73 to Interstate 605, improving traffic conditions for drivers.

The project will increase capacity and improve safety on I-405, which is one of the busiest highways in the USA carrying over 300,000 vehicles daily.

MEXIQUENSE BELTWAY. PHASES I, II AND III. MEXICO



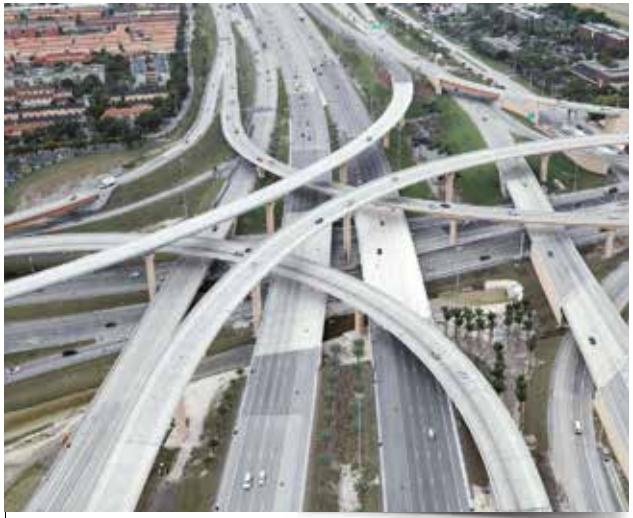
Client: Concesionaria Mexiquense, S. A. de C. V.
Completion date: 2011
Budget: 1,011.1 million euros

Construction of 110 km of highway with a flexible pavement and four lanes of circulation. It links the most densely populated areas of the center of Mexico and operates as an easterly bypass of the metropolitan area, connected to three of the principal highways that provide access to the city.

Main works executed:

- 8 viaducts.
- 151 bridges and vehicular passes.
- 18 links.
- 6 principal toll areas.

MIAMI HIGHWAY INTERCHANGE (SR 826/836). FLORIDA. USA



Client: Florida Department of Transportation (FDOT)
Completion date: 2016
Budget: 502.0 million euros

Design and construction of the largest highway interchange in Miami. It is located between the Dolphin Expressway, which connects downtown Miami with the airport, and the Palmetto Expressway, one of the main north-south routes that crosses the industrial center of Miami.

The Miami highway interchange allows the direct movement of traffic from 826 and 836 in all directions, which eases traffic flow and reduces congestion.

Main works executed:

- Highway crossroad with four levels of circulation and a height of up to 32 meters.
- A total of 46 new bridges.
- Replacement of old structures with new ones.
- Drainage, lighting, signage, landscaping and the installation of noise barriers.

ROUTE 60. CHILE

Client: Sociedad Concesionaria Autopista de los Andes
Completion date: 2012
Budget: 360.0 million euros

Construction of 110 km of roadway along Route 60, one of the most important highways in the country, located in the Bioceanic Corridor, and it is an important connection between Chile, Argentina, Brazil and Uruguay.

Main works executed:

- 14.2 km of new build roadway.
- 26.2 km of new two-lane roadway.
- 26.4 km of additional second roadway.
- 37.9 km of service roads.
- 19 bridges and railway crossings.
- 15 graded intersections.
- 14 existing structures to be rehabilitated.
- 4 pedestrian overpasses.
- 2.5 km of levees.
- Construction, maintenance and improvement of the drainage and sanitation system.

NORTHERN URBAN TOLL ROAD. MEXICO

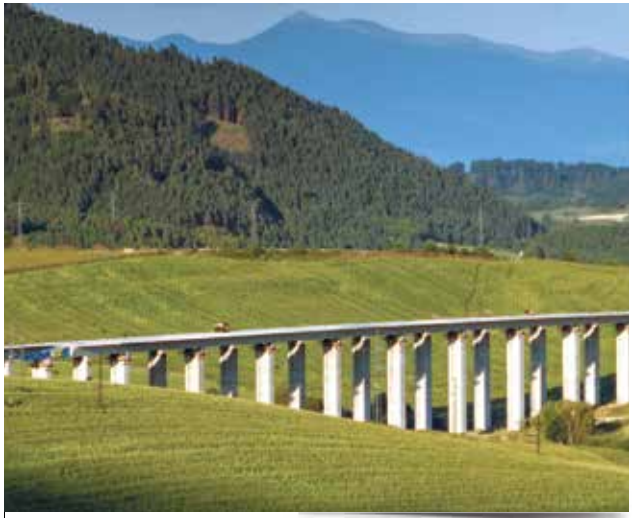
Client: Autopista Urbana Norte, S. A. de C. V.
Completion date: 2013
Budget: 346.0 million euros

Construction of 8.9 km of elevated high specification urban viaduct with six lanes, built from prefabricated elements, as well as a 0.8 km double height false tunnel type depressed section connecting the north of the Bicentenial Viaduct of the State of Mexico to the south with the second level of the City of Mexico (Toreo-San Antonio). It has a dynamic monitoring system integrated in several points of the structure which permits real time knowledge of its behaviour in a seismic event.

Main works executed:

- 8.9 km of core viaduct.
- 0.8 km of double height false tunnel.
- 10 roadway links which represent 6.8 km of branch viaduct.
- 1 main toll gate area (San Antonio).
- Toll areas and free flow type gateways in each link.

D1 HIGHWAY, HUBOVÁ-IVACHNOVÁ SECTION. RUŽOMBEROK, ŽILINSKÝ REGION. SLOVAKIA



Client: National Road Administration
Completion date: under construction
Budget: 272.6 million euros

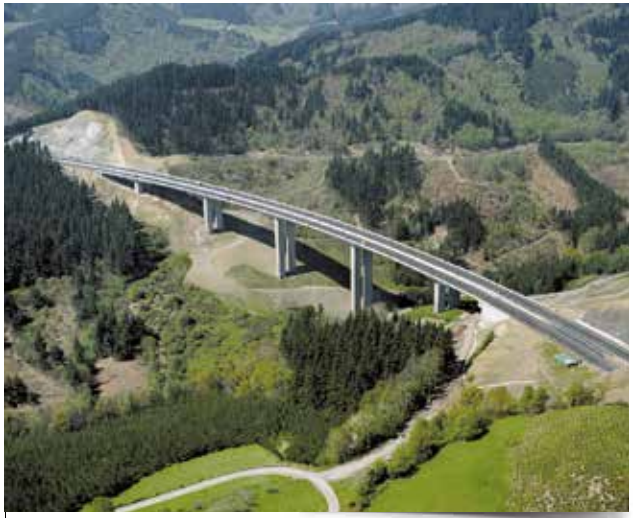
Construction of the D1 highway, Hubová-Ivachnová section, with a length of 15.3 km and which will be part of the D1 Bratislava-Košice highway.

Works also include the construction of new roads and modifications of existing ones, and the construction of bridges, supporting walls, tunnels, and sewage and drainage systems, up to roughly two hundred initiatives.

Main works executed:

- Access and service roads
- 9 bridges
- Infrastructure connectors and relaying

AP-1 HIGHWAY. ARLABÁN- ESKORIATZA NORTE SECTION. SPAIN



Client: Ministry of Public Works
Completion date: 2009
Budget: 226.5 million euros

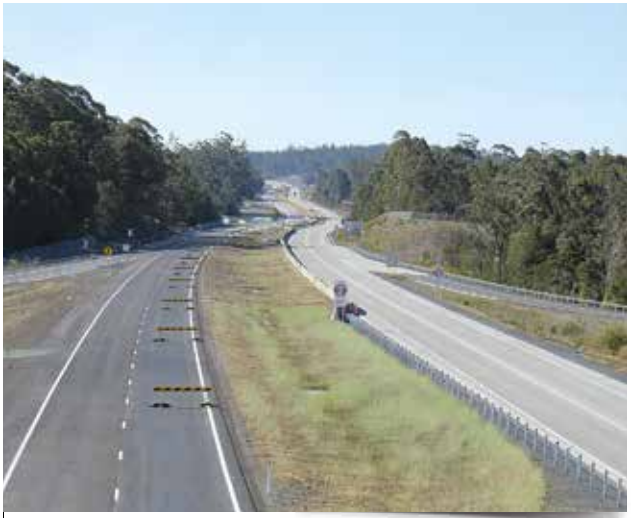
Execution of the roadway from Mount Arlabán (Álava) to the municipality of Eskoriatza (Guipúzcoa), which connects Spain and Portugal with mainland Europe through the Basque Region.

The road has a total core length of 10.8 km.

Main works executed:

- 3.7 km distributed in two tunnels: Arlabán (3.3 km), and Zarimutz (420 m).
- 1.9 km distributed in six viaducts: Marín (594 m), Zarimutz (478 m), Mazmela (402 m), Utzarreta (240 m), V 122.2 (30 m) and Apotzaga (180 m).
- 2 elevated causeways.
- 5 inferior causeways.
- Partial coverage of the Deba River.
- 7 retaining walls.

PACIFIC HIGHWAY. K2K SECTION. AUSTRALIA

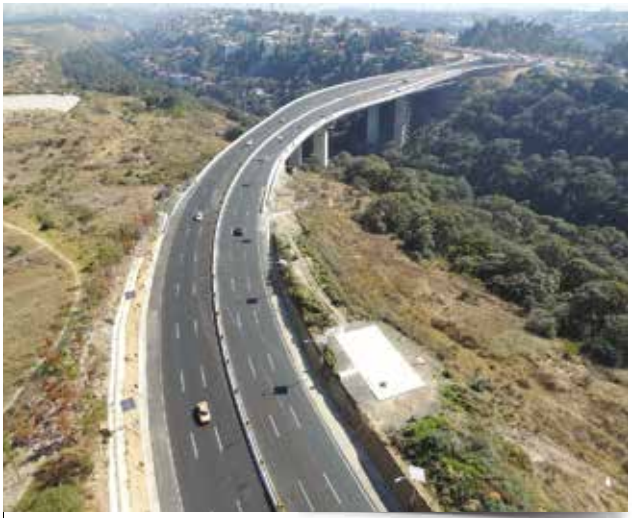


Client: Department of Roads and Maritime Services of New South Wales
Completion date: 2017
Budget: 190.0 million euros

Construction of a 14 km section of one of the most important highways in Australia, the Pacific Highway, in the state of New South Wales, between the localities of Kundabung and Kempsey.

The contract has been to double the Pacific Highway by building a two-lane highway with a total length of 14.6 km, including twelve kilometers of local roads, eight bridges and three overpasses on the Range Road interchange, plus a rest area.

WESTERN URBAN TOLL ROAD. MEXICO



Client: Coordinadora Vía Rápida Poniente S. A. P. I. de C. V.
Completion date: 2013
Budget: 161.7 million euros

Construction of 7.1 km of high specification urban highway, flexible pavement with six and four lanes, connecting the south with the west of Mexico City (Autopista Urbana Sur-Santa Fe). It was designed taking into consideration the preservation of the protected natural areas and the environmental value of La Loma and Río Becerra.

Main works executed:

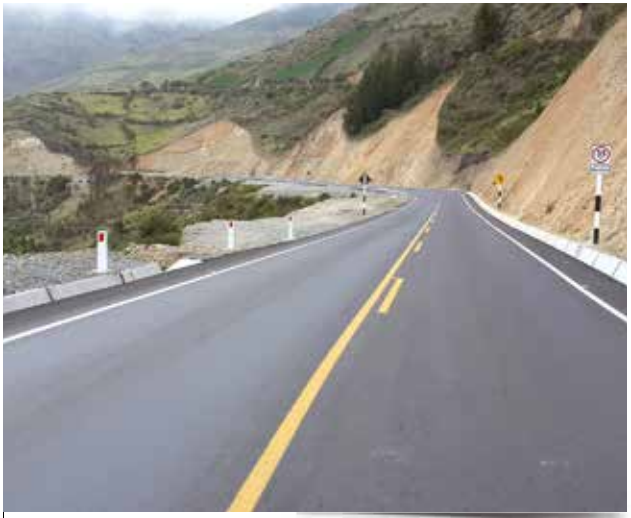
- 1 core elevated viaduct of 1.8 km.
- 2 special crossed viaducts with ravines.
- 3 bitube tunnels with 2 lanes each.
- 2 false tunnels for roadway crossings.
- 11 bridges and vehicular passageways.
- 3 roadway distributors.
- 2 main toll areas.

A-2 HIGHWAY. FROM MP 5.9 TO 62.0. SPAIN

Client: Ministry of Public Works
Completion date: 2012
Budget: 148.4 million euros

The project consists of the remolding and first establishment of the A-2 Highway, between kilometer markers 5.9 and 62. Of the activities carried out, significant are the extension of the speed change lanes, construction of roundabouts at link intersections, restoration and reinforcing of non-modified roadbeds, substitution of metallic pedestrian walkways, porticos and banners, work on slopes to ensure their stability, remodeling and conditioning with regards to the longitude and width of the road at all the links, changing of the public lighting installation and actions to improve the environmental integration of the highway.

AYACUCHO–ABANCAY ROAD, SECTION VII. PERU



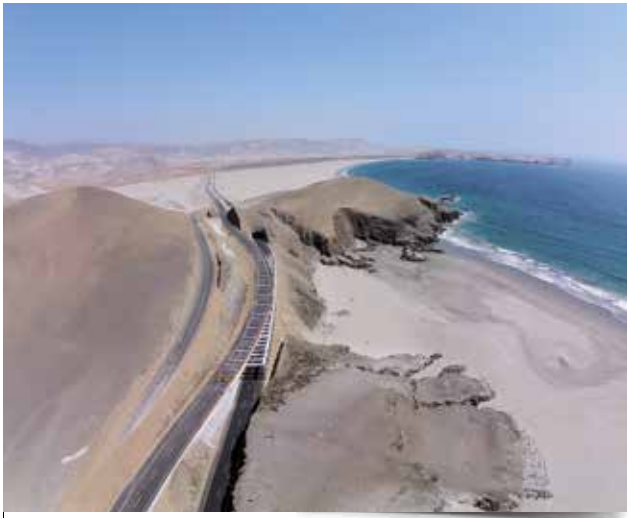
Client: Ministry of Transports and Communications
Completion date: 2015
Budget: 136.0 million euros

Restoration and improvement of section VII, 76.5 kilometers long, between Ayacucho and Abancay, in the south of the country, integrated in the Ruta Nacional 3S or Carretera Longitudinal de la Sierra. The section awarded starts at an altitude of 3,7 m above sea level and ends at a height of 1,7 m, with a grade of 1,9 m.

Main works executed:

- Transversal drainage work to overcome the various waterways that cross the trajectory, as well as various concrete walls, riprap retaining walls to improve the stability of the embankments in the more complex sleeper areas.
- Road paving.
- Installation of the necessary road sign posts and security elements.
- Environmental restoration of the areas affected during the construction work.

RED VIAL 4 TOLL ROAD. PERU



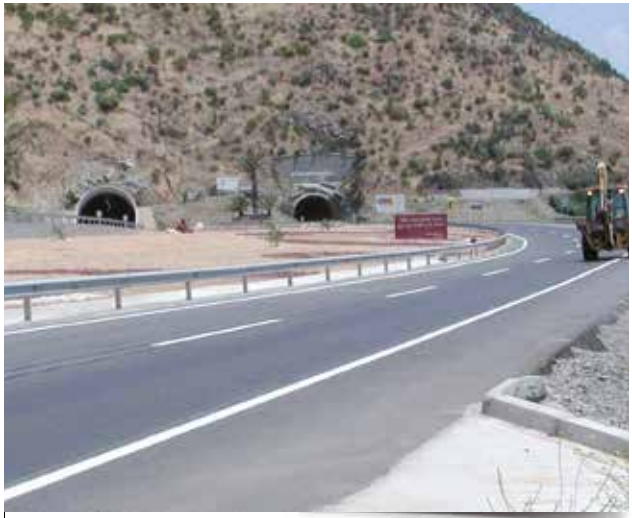
Client: Autopista del Norte, SAC (AUNOR)
Completion date: 2016
Budget: 122.7 million euros

Design and construction of approximately 263.7 km of secondary roadway and three beltways in the cities of Huarmey, Casma and Virú-Chao. The project features a new 185 m elevated overpass that allows the new roadway to pass over the current one, avoiding the existing rock tunnel in this sector and a mineral pipe conveyor are worth mentioning. Part of the route runs very close to the Pacific Ocean, with abundant sand dunes flanking the road.

Main works executed:

- Second roadway: 263.7 km of road widening divided in four sections.
- Huarmey two lane beltway with a longitude of 6.9 km.
- Casma two lane beltway with a longitude of 12.0 km.
- Virú two lane beltway with a longitude of 15.4 km.
- 8 roundabouts.
- 10 elevated causeways.
- 20 pedestrian walkways.

ROUTE 5.
SANTIAGO-LOS VILOS SECTION. CHILE



Client: Sociedad Concesionaria Autopista del Aconcagua
Completion date: 2002
Budget: 83.0 million euros

Construction, preservation and operation of the Santiago-Los Vilos section of Route 5, the main road connection between Santiago and the north of the country.

Main works executed:

- 25.4 km new second roadway.
- 3.3 km third hydraulic concrete tracks. (11,5 m^2).
- 72 km service roads.
- 31 bridges, 28 links.
- A 300 m tunnel, La Calavera (reinforcement, paving, upgrading and lighting).
- 18 pedestrian walkways.
- 4 service areas.
- 2 truck parkings and three toll plazas.
- 4 bridges and railway passings with 8 road level intersections.
- 8.3 km pavement reconstruction.

A-8 CANTABRIAN HIGHWAY. LINDÍN-CAREIRA SECTION. SPAIN

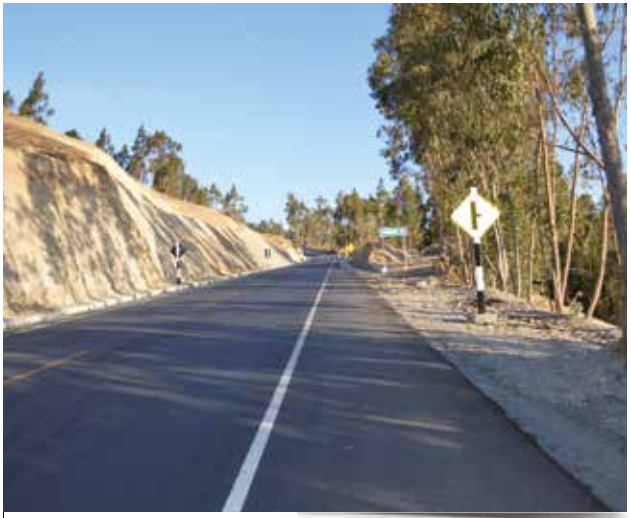
Client: Ministry of Public Works
Completion date: 2013
Budget: 69.9 million euros

Construction of the last section of 10.5 km, which connects to the Galician route of the Cantabrian Highway (A-8) Careira-Lindín. This infrastructure connects the Cantabrian road axis with the radial axis of the Northwest Highway (A-6, Madrid-A Coruña). The purpose of the construction of the A-8 is to channel critical long and mid-distance traffic that circulates along the north of the country and to improve national and international communication through the E-70 European itinerary.

Main works executed:

- 5 viaducts: Vedros (328.2 m), Curros (252.3 m), Fiouco (113.6 m), Muras (179.3 m) and Galgao (86.8 m).
- 4 overpasses.
- 5 underpasses.
- 3 reinforced earth walls.

ANDAHUAYLAS–HUANCABAMBA ROAD. PERU



Client: Ministry of Transports and Communications
Completion date: 2016
Budget: 33.4 million euros

The project consists of the restoration and improvement of the Andahuaylas–Pampachiri–Negromayo Road, Andahuaylas–Huancabamba section, in the departamento of Apurímac, with a total length of 20 km and 3,6 m above sea level.

The new road provides substantial improvements for the agricultural sector as it supports the transportation of products, machinery and equipment in a quick and safe manner. In addition, it joints the localities of Andahuaylas and Huancabamba with the airport in the area, reducing the travel time in 30%.

The main work executed was earthworks, excavations of loose and fixed rock, embankments, retaining walls, art and drainage work, road safety, environmental protection and replanting of affected areas.

JAMAL ABDUL NASSER VIADUCT. KUWAIT

Client: Ministry of Public Works
Completion date: under construction
Budget: 664.2 million euros

It runs along Jamal Abdul Nasser Street, in the capital of Kuwait, in an east-west direction and is part of a program of actions by the Ministry of Public Works to relieve traffic congestion in the city. Its structure consists of a connection of continuous bridges with six to nine spans each, separated with expansion joints. The main board is formed by two cells of pre-stressed and pre-cast segments with three lanes and each supported by transversal diaphragms. The erection and assembly of the pre-cast segments of the main viaduct has been carried out span by span by way of two beam launchers.

Main works executed:

- 18.6 km pre-cast segmental viaduct.
- 716.0 m depressed road.
- 20.0 km of ground level service roads, including 9 roundabouts.
- 3 junctions of various levels.
- 8 pedestrian walkways.
- 190,000-m^2 surface of pre-cast segmental installations.

BICENTENNIAL VIADUCT. MEXICO

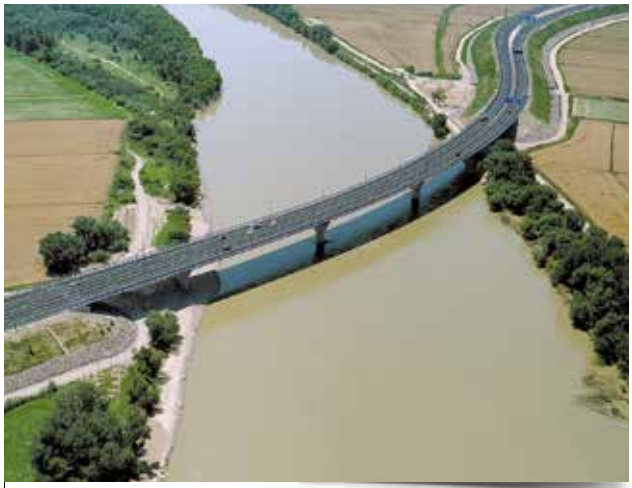
Client: Viaducto Bicentenario, S. A. de C. V.
Completion date: 2010
Budget: 340.5 million euros

Construction of 23.5 km of an elevated viaduct and 2.2 km of high specification level roadway, connecting to the first and second constructive phases. This infrastructure connects the north of Mexico City (Autopista Urbana Norte) with the Municipality of Cuautitlán Izcalli in the State of Mexico and the entire trajectory runs over the existing north beltway.

Main works executed:

- 20 km of a 3-lane core viaduct. Reversible.
- 3.5 km of a 4-lane core viaduct.
- 2.2 km of a 3- lane level urban roadway. Reversible.
- 14 roadway links, which represent 5.8 km of branch viaduct.
- Toll areas and flow free type gateways at each link.

VIADUCT ON THE EBRO RIVER. FOURTH BELTWAY IN ZARAGOZA. EAST SECTION. SPAIN

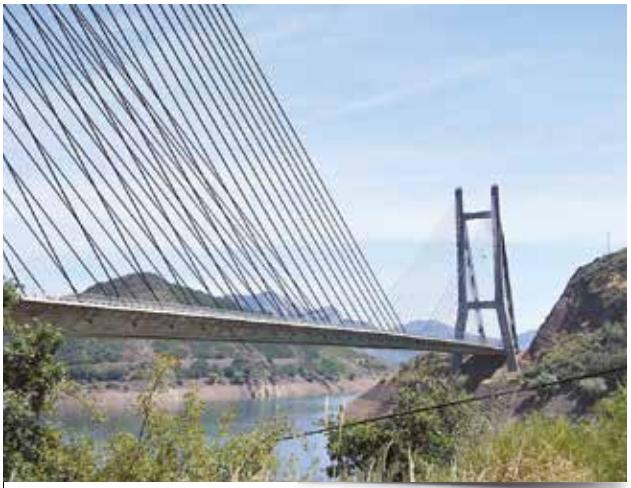


Client: Ministry of Public Works
Completion date: 2008
Budget: 83.9 million euros

Construction of a 10.1 km highway with two lanes in each direction, two 3,5 m lanes each, exterior and interior shoulders of 2.5 x 1 m respectively, and a central median with a variable width between platform borders up to a maximum of 14 m.

It includes a viaduct with a length of 396 m projected on the Ebro River. Its structure has cantilevers, a false vehicular tunnel with a length of 585 m executed by a piled wall, piles and reinforced concrete slab with its corresponding electrical, lighting, ventilation, safety, communications and control and fire prevention installations. In addition, it has three full connections, nine overpasses and nine underpasses.

BARRIOS DE LUNA RESERVOIR VIADUCT. AP-66 ASTURIAS-LEÓN. SPAIN

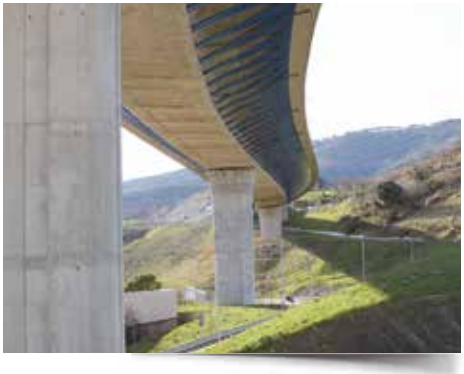


Client: Ministry of Public Works
Completion date: 1983
Budget: 18.7 million euros

This bridge, with a span of 637.5 m, crosses the Barrios de Luna reservoir in the province of Leon, and is part of the Ruta de la Plata Highway (AP-66).

It is a cable-stayed structure made up of 140 voussoirs with a length of 4.0 m and a width of 22.5 m, cast *in situ*, and held by 59.6 m braces at 234.6 m which are anchored in two piles, each formed by two rectangular shafts with variable sections. At that time, this project obtained the world record in spans for cable-stayed bridges with cement slab and also for executing its construction using prestressed concrete as a resistant element.

VIADUCT SOUTH METROPOLITAN BYPASS BETWEEN TRAPAGARAN AND LARRASKITU. SPAIN

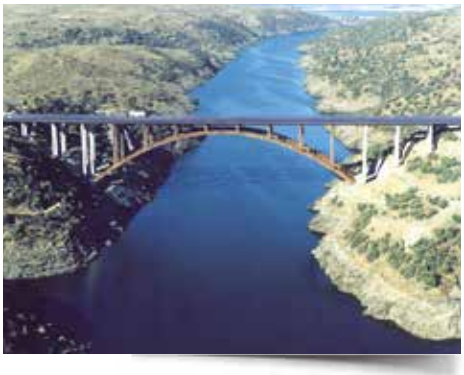


Client: Ministry of Public Works
Completion date: 2010
Budget: 50.6 million euros

It is of singular importance since its roadsurface has a world record width in executions of this type measuring 35.6 m.

It includes the construction of a main viaduct of 670 m in length and 35.6 m in width, divided into four central spans of 125 m and two laterals of 90.5 m and 80 m each, and an access viaduct that is part of the Trapagarn link.

ARCOS DE ALCONÉTAR BRIDGE. A-66 LA PLATA HIGHWAY. SPAIN

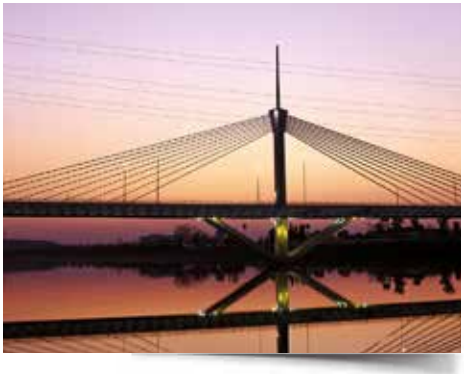


Client: Ministry of Public Works
Completion date: 2006
Budget: 66.4 million euros

It is situated on the Tajo River as it passes through the province of Cáceres, near the Alcántara reservoir and is 60 km from the border with Portugal. The infrastructure forms part of the route of the A-66 highway.

It has a length of 400 meters and a span of 220 m between springers, a 42.5 m height and a roadway width of 13.5 m, it has two twin steel and concrete structures, with a combined weight of more than 4,3 tons.

CABLE-STAYED BRIDGE ON THE GUADALQUIVIR RIVER. EAST BELTWAY IN CORDOBA. SPAIN



Client: Ministry of Public Works
Completion date: 2004
Budget: 27.0 million euros

Construction of a 2.5 km long bridge, the execution of which was pioneer with the application of the tightening by pretensed extradorsal technique -use of a reduced tower height and an adequate rigidity of the board-. Aimed at incrementing to the maximum the slenderness of the pile-board, a central tightening system was used. Teh infrastruture, located over the Guadalquivir River, improves mobility in the eastern area of Cordoba and connects the N-IV with the northern area of the city.

MADRID AIRPORT HIGHWAY LINK TUNNELS. SPAIN

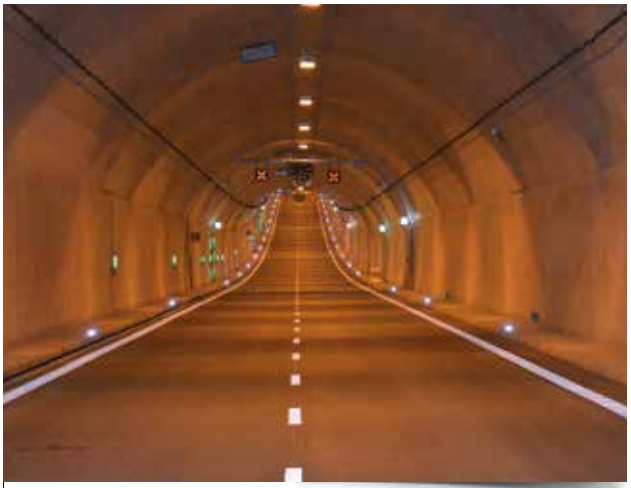
Client: Autopista Eje Aeropuerto Concesionaria Española, S. A.
Completion date: 2005
Budget: 267.0 million euros

This infrastructure connects the central and north areas of Madrid with the new T-4 Terminal of the Adolfo Suárez Madrid-Barajas Airport. Its construction has entailed the execution of 51 structures of different bridges and tunnels.

Project included the construction, operation and maintenance of this urban highway with a length of 9.4 km and the construction of four separate components; expansion of three lanes; improvement of the south access to the airport from the M-40 highway and the new connecting roadway (M13) between the existing T1, T2 and T3 terminals and the new T4 terminal.

The highway has two one-way tunnels of 1,714 and 1,762 m. The tunnels have a horizontal clearance of 12.5 m which permits two lanes of traffic, normal shoulders and sidewalks. This infrastructure has received the prize for being the safest tunnel in Europe, as per the EuroTAP 2006 report.

TUNNEL UNDER THE VISTULA RIVER. HIGHWAY CONNECTING THE AIRPORT TO THE PORT OF GDANSK. POLAND



Client: Gdansk City Council
Completion date: 2016
Budget: 180.0 million euros

Execution of a 2.4 km section of the Gdansk beltway where two twin tunnels were constructed. These tunnels have a length of 1.1 km under the mouth of the Vístula River into the Baltic Sea and were excavated using the Tunnel Boring Machine method (TBM).

Both tunnels are connected by seven transversal escape galleries with 12 m^2 of free section and a length of 20 m. The cladding of the tunnels has been performed by prefabricated reinforced concrete voussoirs with a density of 60 cm.

OHLA is the fi rst Spanish company to excavate of a tunnel under the navigation channel of a river using a hydraulic type TBM with an excavation diameter of 12.6 m.

JUAN CARLOS I TUNNEL. VIELHA. SPAIN

Client: Ministry of Public Works
Completion date: 2008
Budget: 148.4 million euros

Twinned infrastructure situated in the N-230 Road which connects Tortosa with France through the Valle de Arán (Lérida). It has a total length of 5,2 m, of which 5,0 m are mine excavated and the remaining 165 m are a false tunnel.

The tunnel in itself has an average excavation section of 106.2 m^2 with the cladding of the crown reaching an altitude of 9.5 m.

Main works executed:

- Work in tunnel: connection galleries with the present tunnel, service gallery, shelters, security and fire niches and sidings, among others.
- Reorganization of accesses, new entrances to the tunnel and connection to the present tunnel.
- Tunnel installations and facilities.
- Ventilation buildings at both mouths given the longitude of the tunnel.
- Exploitation and maintenance building.

KRÁLOVO POLE TUNNELS. BRNO BELTWAY. CZECH REPUBLIC

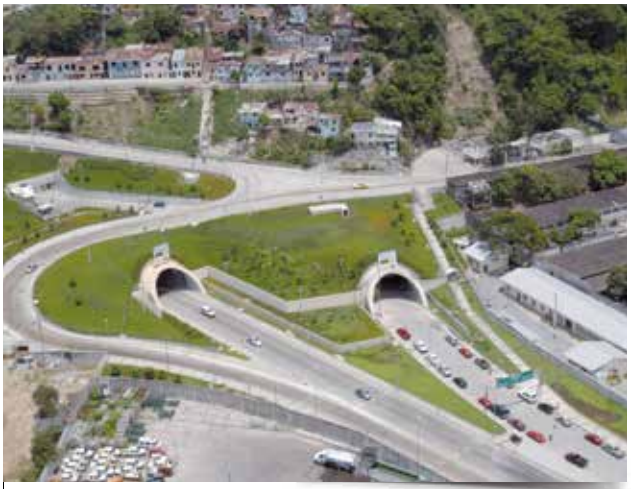
Client: General Directorate of Highways and Roadways
Completion date: 2012
Budget: 69.8 million euros

The Královo Pole tunnels are considered an important element of the Brno basic transportation system and the road network of the country. Up to 25,000 vehicles travel along them daily at rush hour, which alleviates traffic in the city.

Main works executed:

- Construction of two parallel tunnels with two lanes each, measuring;
  - Tunnel I: 1,239 m
  - Tunnel II: 1,258 m and a minimum height at the passing section of the tunnel of 4,5 m.
- Execution of the connections of Žabovřeská–Hradecká and Hradecká–Královopolská and a part of the Dobrovského–Svitavská radiála branches.

EL CARMEN AND SANTA ANA MOUNTAIN TUNNELS. GUAYAQUIL. ECUADOR



Client: Municipality of Guayaquil
Completion date: 2003
Budget: 61.1 million euros

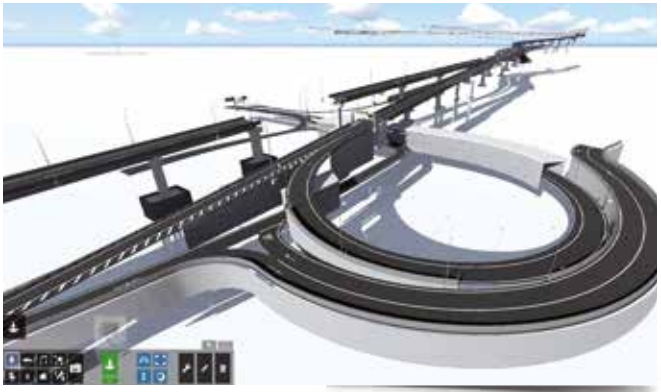
Construction of two tunnels and two bridges which facilitate the communications of the city of Guayaquil.

The tunnels have a length of 540 and 745 m, respectively and cut through the Santa Ana and El Carmen mountains. Access as well as the intercommunication between both infrastructures is carried out by way of viaducts.

The tunnels were built on soft soil with lateral micropile screens and shotcrete cladding with a density of 20 to 35 m. The construction of the viaducts was executed with driving of prefabricated concrete piles measuring 50 x 50 cm with a depth of up to 40 m and pile heads with a diameter of 1,000 mm.

Innovative vocation

Sogedron. UAV technology applied to geodesy and topography.



Example of the use of BIM in civil works: Américo Vespucio Oriente Project (Chile).

RDI constitutes one of the main growth pillars of OHLA due to its contribution to improving productivity and competitivness through the development of innovative solutions.

THE ROAD OF THE FUTURE

OHLA has extensive experience in the development of innovations in the fi eld of bituminous mixtures, pavements and asphalts, in the design of its components as well as in the management and use on site. Examples of this are:

- SMA sustainable mixes (Stone Mastic Asphalt) with greater durability, less noise and consumption.
- PaviSost: super draining pavement with low maintenance and respectful with the environment, developed and patented by OHLA.
- Equinox: patented superficial treatment for asphalt pavements which allows the reduction of nitrogen oxide in urban areas.

The company has also developed innovations which allow for the design of safer roads (new highway margins and new braking beds).

HIGH TECHNOLOGY IN CONSTRUCTIVE PROCESSES

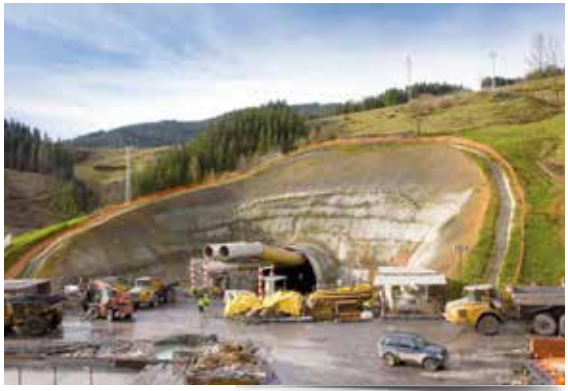
In the area of road construction, the following are noteworthy:

- Construction of tunnels: new technologies in the area of subterranean work and tunneling through the NeTTUN project.
- Construction of viaducts: OHLA has designed various innovative solutions for the construction of bridges and has patented a new more secure and efficient method for the placement of pre-slabs in the execution of boards for bridges.

In the area of digitalization, the following are noteworthy:

- The implementation of the BIM method (Building Information Modeling) in the strategic construction processes, as a key vector for digitalization.
- Sogedron: State of the art UAV technology (Unmanned Aeronautical Vehicle) used to create digital models of terrain.
- Projects such as SnagApp and Built2Spec, focused on the support of sensors and portable devices for the monitoring of sites, purchasing management or control of fleets.

Committed to sustainability



Zumárraga tunnel embankment after the restoration, in Spain.

Arlabán tunnel water treatment system, in Spain.

PROTECTION OF ECOSYSTEMS AND THE ENVIRONMENT

OHLA designs specific environmental control and monitoring systems to avoid and reduce the impacts on the environment and biodiversity in the development of road infrastructures. During the construction process, preventive, corrective and awareness measures are implemented, aligned with the environmental requirements of the project and the company's commitment to sustainability.

Examples of sustainability in roadway projects include:

- Collection and treatment of perforation water in tunnel construction projects.
- Conservation of the biodiversity.
- Recycling and reutilization of materials.
- Restoration of the affected spaces.

AWARDS AND RECOGNITIONS

- Awarded in the CDP Europe Awards 2017, for its work on climate change and sustainable water management.
- Recognition for the restoration of the George Washington historical Bridge in New Jersey (USA), awarded by the New Jersey Alliance For Action.
- Recognition of the work to facilitate the development of infrastructure and the wellbeing of the users, awarded by the Supervising Agency of the Investment in Public Transportation Infrastructure of Peru (OSITRAN, its acronym in Spanish) in 2016.
- Red Vial 4 Toll Road in Peru, recognized as exemplary case in the Guide for the Environmental, Health and Safety Good Practices published by the Interamerican Development Bank.
- 2016 Tytan Award, awarded by the magazine Inżynieria Bezwykopowa, and 2015 Project of the Year awarded by the Engineers and Construction Technicians Association (PZITB) for the Connection between the Airport and Port of Gdansk Ruta Slowackiego IV project in Poland.
- The M-12 Tunnel (Spain), the best and the safest in Europe according to the EuroTAP 2006 report.

OHLA
Progress Enablers

ohla-group.com