



Roads, highways and motorways



Construcción



More than 8,500 kilometers of road infrastructure

FCC Construcción has completed **more than 8,500 kilometers of road and highway works**, in the four continents that we operate. FCC Construcción completed road projects using various project finance models and a variety of contracts to complement.

The activities carried out include; design and planning, construction of tunnels, bridges or other structures to facilitate road construction, rehabilitation and maintenance.



Canada

Fredericton - **Moncton** highway

The Public private partnership (PPP) was part of the TransCanada Highway, Fredericton to Moncton, New Brunswick project. The project included the design, construction, financing and maintenance of a 195 kilometers, controlled access highway and four-lane road. The maintenance contract is a 30-year commitment by FCC and its construction partners.

Twenty-one interchanges and 28 overpasses were constructed, including two, kilometre long bridges over the Saint John and Jemseg rivers.



Miami, USA

I-95 highway

The I - 95 is the main interstate highway on the country's east coast linking Miami, Florida to New Brunswick Canada.

The project included the design and construction of a 13 kilometers road with two toll lanes and four additional lanes for general traffic. In addition the highway was equipped for Intelligent Traffic Management (ITS) and toll-free stop (Sun Pass) for the two toll lanes.



Mexico

“Ingeniero Gilberto Navarrete” bridge

This highway is divided into 2 sections:

- **Section 1:** Nuevo Necaxa - Avila Camacho, which is 36.6 kilometers long and contains four lanes of traffic. The route crosses the Sierra Madre Oriental, a difficult terrain to traverse. Six tunnels were built with a total length of 8,000 meters, and twelve new bridges with a total length of 2,300 meters. The San Viaduct stands out, with a length of 850 meters and whose central pillar at 225 meters makes it the second highest viaduct in the world.
- **Section 2:** Ávila Camacho - Tihuatlán, 48.1 kilometers with two lanes of traffic.



Chile

North accesses to Santiago de Chile

This new access road, 15 kilometers long, improves access to the industrial centres in the North of the country.

The management and coordination of traffic whilst completing the works presented additional complexity to the project as the highway operation was to be fully maintained.

There are four lanes in each direction between the Quilicura and the Buenaventura link, to continue with three lanes until Lampa's toll. Fourteen pedestrian walkways and 10 junctions were constructed for these works.



Chile

Improving access to the city **Iquique**

The work involved a new South Access connection to the urban environment of Iquique. This represents a 5 kilometers stretch of road.

The road was excavated in the hillside, using earth retaining walls along the lower section and ground stabilization techniques on the upper sections.



Chile

“Cuesta de las Chilcas” and “Lo Marcoreta” axis

“Improvement of the Cuesta Las Chilcas. Route 5. Section: Santiago - Los Vilos”. The 4.7 kilometers road works include, construction of a five lane highway (arranged in two and three lanes), with a central dividing wall.

Additionally, two new junctions have been built, replacing three existing bridges. Nine pedestrian walkways were built as part of the overall scheme.

“Lo Marcoreta” axis is a 1.4 kilometers road intervention project that connects Ave. “Lo Marcoreta” with Route 5 North through a low-level crossing.



Costa Rica

“Sol” highway “San José - La Caldera”

This road extension project achieves the goal of allowing a faster, safer and more efficient commute between city of San José and the Pacific coast areas and serves as a connection with the central, south and north regions.

This 77 kilometers highway reduce travel times between the two regions. Previously, travel time to Caldera was estimated at 2 hours coming from San-Jose. This reduced to 70 minutes with the opening of the new highway.



Costa Rica

North Interamerican highway “Cañas - Liberia”

The North Interamerican highway is one of two sections of the Pan-American highway that cross Costa Rica. The stretch of the national highway, Cañas-Liberia, is considered of great importance to complete the Mesoamerican corridor.

The project consisted of widening the road from two to four lanes, along the 50.6 kilometers road. As part of the works eight new bridges were built and another eight were renovated.



Nicaragua

“Los Chinamos - El Ayote” road improvement

The 39 kilometers road improvement project in “Los Chinamos-El Ayote” was divided into two sections:

- **Section I**, has a length of 19.5 kilometers, and serves the “El Camastro a Los Chinamos” population.
- **Section II**, is the same length and It includes the population of “Los Chinamos a El Ayote”.

The development of this infrastructure has improved accessibility to the rural areas.



Panama

“Via Brasil” corridor section I and II

FCC Construcción planned, designed, financed and built the project.

- **Section 1:** Consisted of transforming the traffic light-controlled intersection into a non-light-controlled arrangement. This included splitting the crossing into three levels, by building an overpass, a depressed underpass and a surface roundabout.
- **Section 2:** Consisted of the transformation of the traffic light controlled crossing at one level, into two levels, by building an underpass and a roundabout on the surface.



Mexico

“Durango - Mazatlán” highway

FCC Construcción built section III of the highway “Durango - Mazatlán”, 17.9 kilometers, linking the Pacific Mexican with the Centre - North of the country and with the Gulf of Mexico.

The project included the construction of 16 tunnels and 15 bridges. Among the unique works was the tunnel of Sinaloense, located in the state of Sinaloa. It is the second longest tunnel in the country at 2,794 meters.



Madrid, Spain

Underground **M - 30**

The underground M-30 was part of the works necessary for remodelling the urban highway in Madrid, with a length of 3,347 meters.

The work consisted of burying 1,666 meters of roadway; two-way three lanes, that link to the south bypass; and two, two-lane routes to the southern junction.

The works were of distinct technical complexity, requiring careful planning and coordination of the various jobs. FCC overcame this to complete the project four months ahead of schedule.



“Despeñaperros” variant

The Despeñaperros variant consists of a double roadway with three lanes of traffic in each direction. With a length of 9.4 kilometers most all of the route runs through undulating topography with rugged terrain, within the Despeñaperros Natural Park.

The layout of the new roadway constitutes a succession of viaducts and tunnels, whose lengths represents 73% of the total. Between the two roads there are a total of 12 viaducts, with lengths between 156 – 580 meters, and 5 excavation tunnels from 197 to 1,925 meters long.



Spain

“Eix Transversal” highway

The Eix Transversal project (C-25) was to construct 153 kilometers highway from the Lleida - Girona axis. FCC built the new highway with two lanes in each direction. The works were divided into three main sections: Cervera - Manresa; Manresa - Vic and Vic - Caldés of Malavella.

The structures built as part of the works include; ten viaducts and four tunnels among which the 730 meters long tunnel of Fontfreda was one. The design and construction work heavily focused on minimising the environmental impact as affect by the road construction.



Spain

“Anillo Insular Tenerife”

The project involves the construction of the road section of the “Anillo Insular Tenerife” between El Tanque and Santiago del Teide. This new stretch of road will be 11.3 kilometers long and will join the north and south corridors of the island of Tenerife.

The most critical part of the work is the construction of the Erjos tunnel. This build was completed with two parallel bores; each 5.1 kilometers in length. It will run under the “Macizo de Teno” becoming the longest tunnel in the island and one of the longest road tunnels in Spain.



Romania

A-1 motorway “Arad - Timisoara” section

The A1 motorway connects Bucharest with the Banat region, in the western part of the Romania. The motorway built by FCC is 32.25 kilometers long and runs between the towns of Timisoara and Arad, located in western Romania.

The 26 meters width includes four traffic lanes, two safety lanes and a central reservation. Thirty-one bridges and 13 transverse drainage structures were constructed to support such as; new service stations, which house the operations and maintenance buildings as well as a police station.



Romania

Constanza By-Pass

FCC developed the design and construction of the Constanza by-pass, which is part of the Bucharest ring road network.

The highway is 22 kilometers long and is located west of the city of Constanza. It includes five links and 26 structures, including; six viaducts, six bridges, eight overpasses and six underpasses.

The project improved the flow of traffic and provided a connection with the A2 motorway by-pass towards Constanza.



Honduras

South segment of the CA-5 road

The project includes the construction of section 2 of the south segment of the CA-5 highway in Comayagua, Honduras. The southern segment, which crosses a mountainous region, is 33.3 kilometers long.

The renovation of this route responds to the needs to improve the road due to the high volume of traffic and security concerns along some sections of the route. The result of the build is a safe and efficient land route for commuters.



Ireland

M - 50 motorway

FCC Construcción designed, built and operate the urban motorway M-50. This dual carriage highway, constitutes the Dublin circulation ring.

The work includes widening the ring road from two to four lanes in each direction. Other road widening works was carried out for a total of 24 kilometers. The project also includes operation and maintenance of another 19.3 kilometers of motorway. The new structures executed are 17 road bridges, three bridges over rivers / canals, one bridge over a railway line and four pedestrian bridges. In addition, **there were 19 underpasses, under existing structures.**



Guatemala

Rehabilitation and improvement of **National Route 12**

National Route 12 is considered the highest road Central America, reaching its highest point at an altitude of 3,500 meters.

The work included the rehabilitation and improvement of 67 kilometers of roadway which service more than 100 surrounding villages. The project included the expansion of five minor bridges and the construction of the bridge over the river Coatán, with 42 meters long bridges, built on site. Environmental mitigation works constituted a large part of the project that included planting more than 6,000 native trees.



Portugal

“Transmontana” highway

The project involved the improvement of the Northeast connection between Spain and Portugal. The works also included renovation of the Sierra de Marão crossing. The overall Transmontana highway project was over 194 kilometers in length, and contains 17 viaducts including:

- “Viaducto del Corgo” with 2,780 meters long and a maximum height of 230 meters. Making it the second highest in Europe.
- Bridge over the Tinhela River with at 780 meters long, and a maximum height of 220 meters.



Spain

“Cartagena - Vera” highway

FCC Construcción implemented the design, construction, operation and maintenance of the Cartagena - Vera highway (Murcia). It consists of a 98.9 kilometers toll road and a toll-free highway, 16.6 kilometers long.

The project included the construction of 181 major structures; three tunnels, among which was the La Loma tunnel.



Spain

Mediterranean Highway A-7 section “Carchuna - **Castell de Ferro**”

This is a section of road along the A-7, Mediterranean Highway. The 10 kilometers section crosses the municipalities of Motril, Lújar and Gualchos - Castell de Ferro.

It is composed of two lanes of traffic in each direction, separated by a variable width central reservation.



Spain

Cantabrian Highway A-8 section “Solares - La Encina”

FCC Construcción completed the Solares - La Encina (Cantabria) section of motorway. It has an approximate length of 13.3 kilometers and connects to the S-10 highway.

The overall excavation volume of approximately 4 million cubic meters were as a result of the; six vehicle flyovers, 13 highway underpasses, 31 retaining walls and containments, and a total of 28 transverse drainage operations.



Netherlands

Extension of **A9** **Badhoevedorp- Holendrecht**

Upgrading of an 11.4 km section of the A9 highway between Badhoevedorp and Holendrecht. The project consists of widening the platform from 3 to 4 lanes in each direction, with the corresponding expansion of existing structures (11), new junctions with other roads, as well as bridges and tunnels. The project has been developed while maintaining traffic on the existing motorway and minimising the impact on the urban environment.



United Kingdom

Extension of the A465 dual highway sections 5 and 6, Wales

The project, developed under the PPP model, consists of the widening of the A465 dual highway, sections 5 and 6, which are 17.3 kilometres long and are located between the towns of Dowlais Top, Merthyr Tydfil and Hirwaun. The widening of the A465 dual highway is key to improving mobility and connectivity in Wales, as well as revitalising the local economy.



Norway

Sotra Connection

The public-private partnership (PPP) contract includes the financing, design, construction, operation and maintenance of a 9.4 kilometre four-lane road, located in Vestland. The project aims to improve travel between Bergen and the island of Sotra on the west coast. The construction includes the construction of twin 4.6-kilometre-long tunnels and a four-lane bridge of about 900 metres. The new road system will have dedicated space for public transport, as well as pedestrian and bicycle access. In addition, the project includes the construction of three smaller bridges.

This is the largest and most complex road infrastructure project developed by the Norwegian government as part of its National Transport Plan 2018-2029.

By-pass of **Usulután city**

The project entailed the construction 9.23 kilometers road in the municipalities of Usulután and Santa María.



Northern longitudinal highway section 3A and **section 5**

FCC Construcción ecompleted the design and construction of the highway which was divided into two sections:

- **Section 3A:** is 10.7 kilometers long. It included construction of a main bridge over the 90-meter wide Tamulasco River; and two minor bridges 40 meters long; and 30 meters long on some flood plains.
- **Section 5:** has a length of 34.21 kilometers and starts on the eastern margin of the Lempa River until the Carolina intersection.

WE ARE FCC



More than 1,000 kilometers of tunnels



More than 10,000 kilometers of highways



More than 3,500 kilometers of railways (1,500 kilometers of high speed and 450 kilometers of metro)



More than 5,500,000 square meters of airport runways



More than 2,500,000 square meters of airport terminals



60 kilometers of dykes and 50 kilometers of docks



130,000 homes built
More than 40 million square meters of non-residential building



More than 3,000 kilometers of gas and oil pipelines



More than 20,000 kilometers of water pipe



More than 110 water treatment plants



www.fcc.es
www.fcco.es



Avd. Camino de Santiago, 40
28050 Madrid, Spain
Phone: +34 91 757 38 03/04
Fax: +34 757 38 25/26