

CARLOS FERNÁNDEZ CASADO, S.L
OFICINA DE PROYECTOS

GENERAL CATALOGUE OF BUILT PROJECTS

❖ **CABLE STAYED BRIDGES**

- ❖ CABLE STAYED BRIDGES UNDER CONSTRUCTION
- ❖ INDEPENDENT CHECKING ENGINEERING SERVICES OF CABLE-STAYED BRIDGES
- ❖ SUSPENSION BRIDGES
- ❖ EXTRADOSED BRIDGES
- ❖ STUDIES AND SINGULAR PROPOSALS

❖ **TRUSS BRIDGES**

- ❖ TRUSS BRIDGES UNBUILT PROJECTS

❖ **ARCH BRIDGES**

❖ **FRAME BRIDGES**

❖ **BEAM BRIDGES**

- ❖ BEAM BRIDGES. CONSTRUCTION WITH THE CANTILEVER METHOD WITH PRECAST SEGMENTS
- ❖ BEAM BRIDGES. CONSTRUCTION WITH THE CANTILEVER METHOD WITH CAST IN PLACE SEGMENTS
- ❖ BEAM BRIDGES. LAUNCHED BRIDGES
- ❖ BEAM BRIDGES. CONSTRUCTION ON CENTRING
- ❖ BEAM BRIDGES. CONSTRUCTION WITH SELF-SUPPORTING CENTRING
- ❖ BEAM BRIDGES. PRECAST BOX GIRDER SECTION

❖ **SALB BRIDGES**

❖ **PRECAST BEAM BRIGES**

❖ **METAL AND COMPOSITE BRIDGES**

❖ **MOVABLE BRIDGES**

❖ **URBAN UNDERPASSES AND RAILWAY COVERS**

❖ **TRASNPORTATION STATIONS**

❖ **SPORT VENUES**

❖ **INDUSTRIAL VENUES**

❖ **SPECIAL BUILDINGS**

❖ **SPECIAL STRUCTURES**

❖ **REHABILITATION AND STRENGTHENING OF HISTORICAL CONSTRUCTIONS**

CABLE-STAYED BRIDGES



Glorias Catalanas Footbridge. Barcelona. Spain (1974)



La Paz Footbridge over the M-30. Madrid. Spain (1975)



Sancho el Mayor Bridge over the Ebro River. Navarra. Spain (1978)



Carlos Fernández Casado Bridge over the Barrios de Luna reservoir. León. Spain (1983)



Bridge over the Nalón River. *Sama de Langreo*. Asturias. Spain (1988)



Bridge over the *Papaloapan* River. Mexico (1995)



Bridge over the *Lérez* River. Pontevedra. Spain (1995)



Malecón Bridge. Murcia. Spain (1996)



Bridge over the *Ozama* River. Dominican Republic (2000)



Bridge over the *Grijalva* River. Mexico (2001)



Footbridge over the *M-30*. Madrid. Spain (2003)



París Bridge. Andorra (2006)



Madrid Bridge. Andorra. (2007)



Entrevías Footbridge. Madrid. Spain (2007)



Almozara Footbridge over the Ebro River. Zaragoza. Spain (2008)



Bridge over the Suir River. Waterford. Ireland (2009)



Arbizelai viaduct. Guipúzcoa. Spain (2009)



Bridge over the Besaya River. Cantabria. Spain (2009)



Boca Oeste Bridge, Andorra (2012)



Basarab Bridge, Bucarest, Romania (2012)



Vidalta Bridge, Mexico (2013)

CABLE-STAYED BRIDGES UNDER CONSTRUCTION



Bridge over the *Cádiz harbour*, Spain (under construction 2014)



Carrera Novena viaduct in Bucaramanga. Colombia (under construction 2014)



Pumarejo Bridge over the Magdalena River. Barranquilla. Colombia (in project 2014)

INDEPENDENT CHECKING ENGINEERING SERVICES OF CABLE-STAYED BRIDGES



Analysis of alternatives and technical advice in the project of the Guemgang cable-stayed bridge. Korea.
Main span= 200 m. (2008)
In collaboration with main designer YOSHIN ENGINEERING CORPORATION (Seúl, Korea)



Supervision of the construction project of the cable-stayed bridge over the Guamá river. Belén do Pará. Brazil.
Main span= 320 m. (2000-2001).
In collaboration with EGT.
Design: ENESCIL (Brazil)/STUDIO MIRANDA (Milán, Italy)



Supervision of the details design of the Rosario-Victoria cable-stayed bridge. Argentina
Main span= 300 m. (1997-1998)
Design: LEONHARDT UND ANDRA (Stuttgart, Germany)

SUSPENSION BRIDGES

	
<i>Figols</i>	<i>Peramola</i>
	
<i>Basella</i>	<i>La Reula</i>
Four bridges for pedestrian and light traffic over the Segre River. Lleida. Spain (1984)	
	
Footbridge over the <i>Jarama</i> River in Madrid. Spain (1988)	<i>Arcalis</i> Footbridge over the Segre River. Lleida Spain (2006)



Two suspended footbridges over the M-40 and R-3. Madrid. Spain (2008)



Footbridge over the *Pisuerga* River in Valladolid. Spain (2009)



Bicentenario Bridge. Querétaro. Mexico (2009)

EXTRADOSED BRIDGES



Osormort viaduct, Barcelona, Spain (1995)



Andalucía Bridge over the Guadalquivir River, Córdoba, Spain (2005)

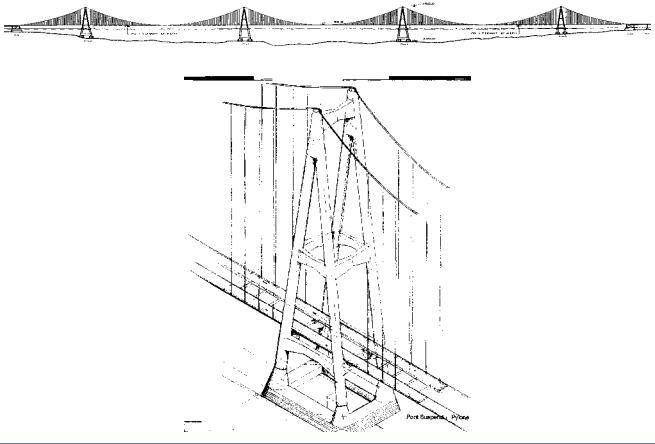
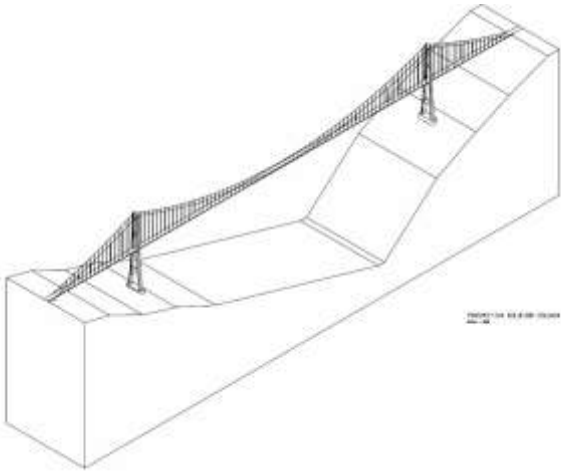


Bridge over the Segre River, Lérida, Spain (2010)



Bridge over the Danube River, Bulgaria (2012)

STUDIES AND SINGULAR PROPOSALS

	
Study of feasibility of Bridge across the Strait of Gibraltar (1994)	
	
Study of Bridge over the Oblatos Gorge. Guadalajara. Mexico (1996)	Proposal (1) of cable-stayed solution for the Bridge over the Chacao channel. Chile (2010)
	
Proposal (2) of cable-stayed solution for the Bridge over the Chacao channel Chile (2010)	

TRUSS BRIDGES



Railway bridge in the *Príncipe Pío* Station. Madrid. Spain (1994)



Euskalduna Bridge over the Nervión River. Bilbao. Spain (1999)



Truss bridge over the *Ebro* River for the L.A.V. Madrid-Zaragoza. Spain (2001)



Bridge “*Centenario*” for the light railway of Montserrat. Barcelona. Spain (2002)

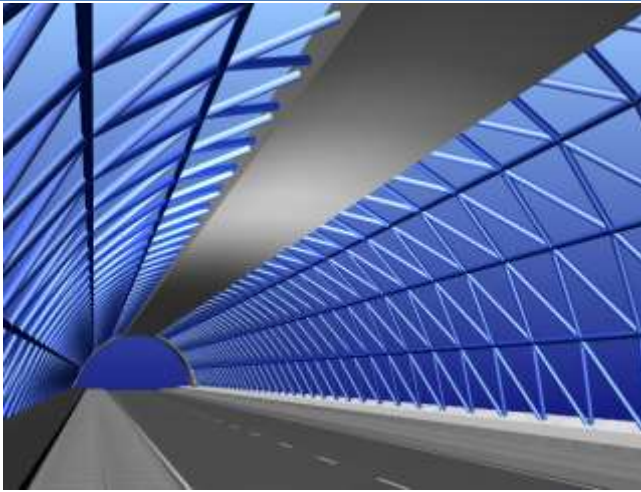


Etxebarri double level railway bridge over the Nervión River. Bilbao. Spain (2005)



Viaduct over the *Garcia Sola* reservoir. Badajoz. Spain (2008)

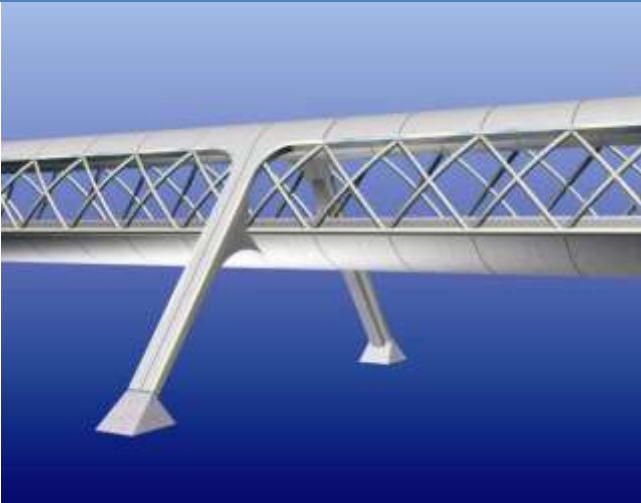
TRUSS BRIDGES – UNBUILT PROJECTS



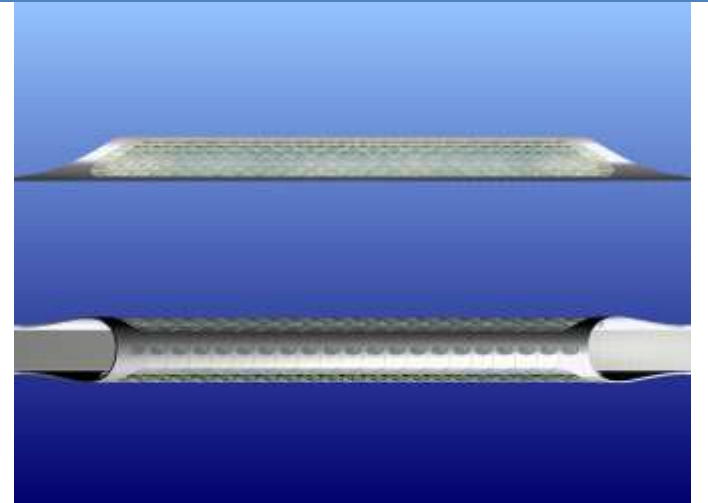
Viaduct in Alcoy. Spain (2004)



Ticino Bridge in Italy (2008)



Preliminary designs for Dese viaduct in Italy (2007)



Competition Pabellón Puente Expo 2008. Zaragoza. Spain (2007)



Tender for the bridge “Krunnusillat” in Helsinki (2013)

ARCH BRIDGES



Valdeobispo Aqueduct over the Alagón River. España (1964)



Bridge over the Caudal River. Mieres. Asturias. Spain (1968)



Juan Flórez overpass. La Coruña. Spain (1973)



Bridge over the Guadarrama River. Madrid. Spain (1988)



Bridge over the Pisuerga River in Valladolid. Spain (1990)



Alcantarilla viaduct over the Segura River. Murcia. Spain (1991)



Bridge over the *Arriondas* River. Asturias. Spain (1992)



Railway bridge over the *Caudal* River. Asturias. España (1992)



Pedestrian bridge over the *Plentzia* River. Vizcaya. Spain (1992)



Portal de Castilla railway pass. Vitoria. Spain (1994)



Monteclaro Footbridge over the Pinar in Majadahonda. Madrid. Spain (1994)



Bridge over the *Escudo* River. Cantabria. Spain (1999)



Valls Bridge. Tarragona. Spain (2001)



Bridge over the *Ebro* River. Zaragoza. Spain (2002)



Footbridge over the *Guadalentín* River. Lorca. Murcia. Spain (2002)



Ronda de la Hispanidad Footbridge. Zaragoza. Spain (2003)



Two railway bridges over the *Nervión* River. Vizcaya. Spain (2003)



Bridge over the *Ebro* River. Logroño. Spain (2003)



Bridge over the *Arga* River. Puente la Reina. Navarra. Spain (2004)



San Sebastián Bridge. Mexico (2006)



Carmen Galindo Bridge over the Galindo River. Vizcaya. Spain (2008)



Endarlatsa Bridge over the Bidasoa River. Navarra. Spain (2009)



Viaduct over the *Contreras* reservoir for a high speed line. Cuenca. Spain (2009)



Bridge over the *Saja* River. Santander. Spain (2010)



Railway bridge over the *Nervi3n* River. Vizcaya. Spain (2012)



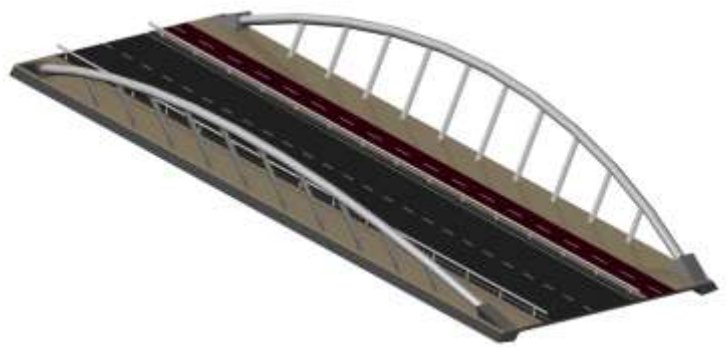
Bridge over the *Vinalop3* River. Elche (2013)



Bridge over the *Arno* River. Arezzo. Italy (2013)



Viaduct for the high speed line over the *Tera* River. Zamora. Spain (2014)



Karabel Bridge over the *Urumea* River. Hernani (under construction)



Viaduct over the *Alc3ntara* reservoir for the high speed line. C3ceres. Spain (under construction)

FRAME BRIDGES



La Navata overpass (1968)



Villalba overpass (1968)



Navacerrada overpass



La Navata overpass

Overpasses over La Coruña Highway. Madrid. Spain (1968-1969)



Footbridge over the Vitoria bypass. Spain (1972)



El Alcalde overpass. La Coruña. Spain (1973)



Two precast footbridges. Barcelona. Spain (1973)



Riera de L'Ubo viaduct. Barcelona. Spain (1993)



Eje Pinar over the M-50. Madrid. Spain (1993)



Basagoiti viaduct. Guipúzcoa. Spain (2009)

BEAM BRIDGES

CONSTRUCTION WITH THE CANTILEVER METHOD WITH PRECAST SEGMENTS



Almodóvar del Río Bridge over the Guadalquivir River. Córdoba. Spain (1964)



Viaducto over the Iznajar reservoir. Córdoba. Spain (1968)



Bridge over the Guadalquivir River. Sevilla. Spain (1968)



Castejón Bridge over the Ebro River. Navarra. Spain (1972)



Los Vados Bridge over the Genil River. Granada. Spain (1974)



Espiñeiro viaduct. Piedrafita. Lugo. Spain (1999)



Ferreiras viaduct. Piedrafita. Lugo. Spain (1999)



Viaduct over the Sella River. Ribadesella. Asturias. Spain (2002)



Access bridge over the Danube Bridge (2). Bulgaria (2012)

BEAM BRIDGES

CONSTRUCTION WITH THE CANTILEVER METHOD WITH CAST IN PLACE SEGMENTS



Arroyo Priego viaduct over the Iznajar reservoir. Córdoba. Spain (1968)



Bridge over the Guayabamba River. Ecuador (1975)



Bridge over the Júcar River. Cuenca. Spain (1977)



Metlac railway viaduct. Mexico (1984)



Caparroso Bridge. Navarra. Spain (1988)



Viaduct over the Pontevedra stuary. Spain (1992)



Viaduct over the *Eume* River. Pontevedra. Spain (1996)



Las Lomas viaduct. Mexico DF. Mexico (1999)



El Nuevo Bridge. Mexico (2011)



Paso de Piedra Bridge. Mexico (2012)



Bridge over the *Duero* River. Zamora. Spain (2012)



Supervía Poniente Bridge. Mexico (2012)



El Platanito Bridge, Mexico (2012)



Viaducto over the *Narcea* River. Asturias Spain (under construction)

BEAM BRIDGES

LAUNCHED BRIDGES



Railway bridge over the *Guadalquivir* River. Jaén Spain (1972)



Alcanadre aqueduct. Huesca. Spain (1977)



Railway viaduct over the *Tula* River. Mexico (1980)



Baridaguato viaduct. Mexico (1982)



Atenquiques viaduct. Mexico (1990)



Tordesillas Bridge over the Duero River. Valladolid. Spain (1991)



New bridge *El Pilar* over the Ebro River. Zaragoza. Spain (1992)



San Juan viaduct. Mexico (1993)



Huixquilucan viaduct. Mexico (1997)



Viaduct over the *Segre* River. Lleida. High speed line Lleida-Barcelona. Spain (2002)



Viaduct over the *Francolí* River. Tarragona. High speed line Lleida-Barcelona. Spain (2002)



Los Monegros aqueduct. Huesca. Spain (2003)



El Papiol viaduct. High speed line Lleida-Barcelona. Spain (2006)



*Viaduct over the *Huerva* river. High speed line Madrid-Zaragoza. Spain (2006)*



Segarra-Garrigues aqueduct. Lleida. Spain (2006)



Arcos del Jalón viaduct. High speed line Madrid-Zaragoza. Spain (2006)



Majalahita viaduct. High speed line Madrid-Valladolid. Spain (2006)



*Viaduct over the *Tera* River. Zamora. High speed line Madrid-Galicia. Spain (2014)*

BEAM BRIDGES

CONSTRUCTION ON CENTRING



Overpasses in Barcelona–La Junquera Highway. Spain (1970)



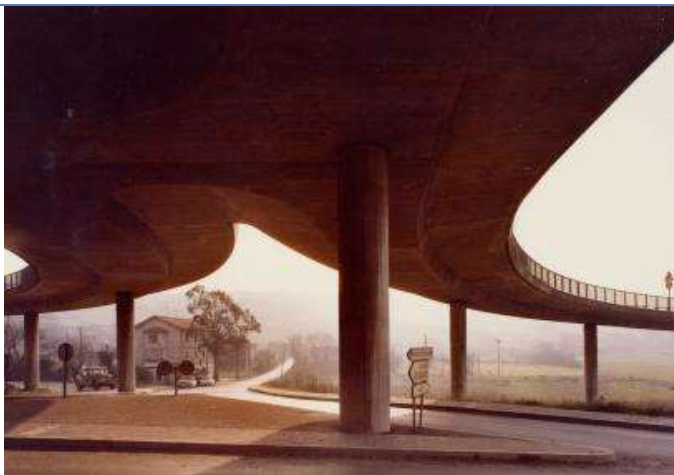
Doctor Esquerdo viaduct. Méndez Álvaro. Madrid. Spain (1971)



Ildefonso Cerdá viaduct. Barcelona. Spain (1971)



Viaduct for Villaverde–Vicálvaro railway. Madrid. Spain (1972)



La Avanzada overpass. La Coruña. Spain (1972)



Nudo de la Paz. Madrid. Spain (1973)



Carlos III footbridge. Barcelona. Spain (1973)



San Isidro bridge over the Manzanares River and the M-30. Madrid. Spain (1974)



Bridge access to the Chamartín railway station. Madrid. Spain (1974)



Sans Airport footbridge. Barcelona. Spain (1974)



Luna III Bridge. Campomanes-León highway. Spain (1979)



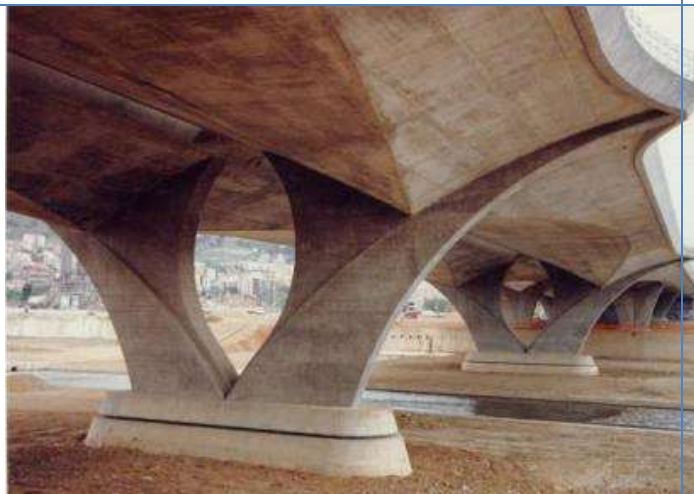
Bridge over the *Siurana* River. Spain (1985)



Galiana Bridge over the Tajo River. Toledo. Spain (1988)



Autonomía Bridge over the Guadiana River. Badajoz. Spain (1988)



Bridge over the Besós River. Barcelona. Spain (1989)



Bridge over the Guadarrama River. Madrid. Spain (1989)



RACE overpass in the N-I. Madrid. Spain (1968)



Overpass in the Albacete bypass. Spain (1989)



Viaduct over the *Ripoll* River. Barcelona. Spain (1989)



Arroyo Culebro overpass. Madrid. Spain (1990)



Overpasses in the *Toledo* road over the *Culebro*. Madrid. Spain (1990)



Overpasses in the *Guipúzcoa* street. Barcelona. Spain (1991)



Business park *Pinar de las Rozas* Bridge. Madrid. Spain (1992)



Bridge over the *Piloña* River. Asturias. Spain (1992)



Urbanización Nuevo Versalles overpass. Madrid. Spain (1993)



Overpass in the M-40. Madrid. Spain (1994)



Overpass in the Coslada transport centre. Madrid. Spain (1994)



Can Ballast viaduct. Barcelona. Spain (1994)



Footbridge in Andorra (1995)



Venustiano Carranza viaduct. Saltillo. Mexico (2002)



Escaldes Engordany Bridge. Andorra (2005)

BEAM BRIDGES

CONSTRUCTION WITH SELF-SUPPORTING CENTRING



Viaduct for railway. Gerona. Spain (1972)



Viaduct in Buenos Aires. 15 km. Argentina (1980)



Figueras-Perpignan Viaduct. Gerona. Spain (2003)



Eje 5 Poniente viaduct. Mexico (2005)



Llobregat viaduct. Gerona. Spain (2007)



Viaduct A Muga. Gerona. Spain (2007)



Gou viaduct. Gerona. Spain (2007)



Ricardell viaduct for the high speed line Barcelona-Francia. Gerona. Spain (2007)



Barranco Peinera viaduct. Cuenca. Spain (2008)



Cuesta Negra viaduct. Cuenca. Spain (2008)



Huertas de Mateo viaduct. Cuenca. Spain (2008)



Rodenillo viaduct for the high speed line Madrid-Valencia. Cuenca. Spain (2008)



Istmo viaduct. Cuenca. Spain (2009)



Viaduct over the Júcar River. Cuenca. Spain (2009)

BEAM BRIDGES

PRECAST BOX GIRDER SECTION



Viaduct over the *Mente* River in the N-VI. Orense. Spain (1998)



Acebosa viaduct in the Cantabria highway. Spain (2001)



Bridge over the *M-45*. Madrid. Spain (2004)



El Portal railway viaduct over the Guadalete River. Cádiz. Spain (2004)



Viaduct over the *Duero* River in la Autovía de la Plata. Zamora. Spain (2008)

SLAB BRIDGES



Overpass in *Las Rozas*. Madrid. Spain (1969)



Overpass over the A-6. Hoyo de Manzanares. Madrid. Spain (1969)



Cuatro Caminos Bridge. Madrid. Spain (1969)



Bridge over the *Tormes* River. Salamanca. Spain (1970)



San Pedro Mezozzo viaduct. La Coruña. Spain (1973)



Oblicuo Bridge over the Manzanares River in the M-30. Madrid. Spain (1974)



New bridge of *Toledo* over the Manzanares River. Madrid. Spain (1974)



Alí crossing bridge. Vitoria Spain (1975)



Mauricio Legendre overpass. Madrid. Spain (1976)



Overpass in the Sevilla-Cadiz highway. Sevilla. Spain (1989)



Unquera overpass in the Cantabria highway. Cantabria. Spain



Bridge over the Plentzia River. Vizcaya. Spain (1993)



Overpass over the M-40 (1). Madrid. Spain (1994)



Overpass over the M-40 (2). Madrid. Spain (1994)



Overpass over the M-40 (3). Madrid. Spain (1994)



San Adrián overpass. Navarra. Spain (1998)



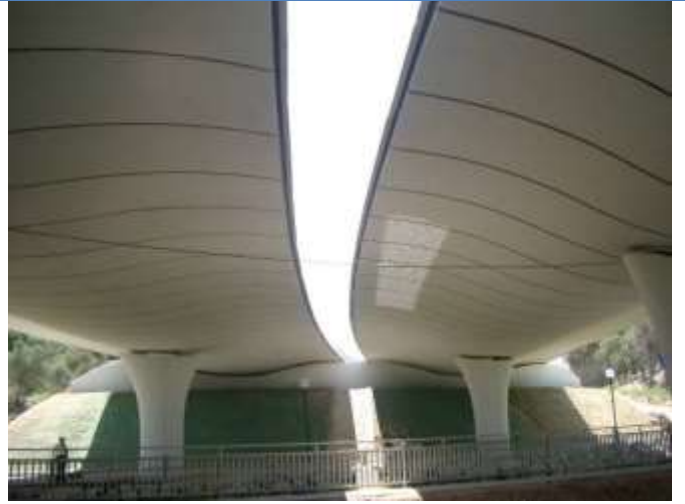
Guillem de Castro Bridge over the Turia River. Valencia. Spain (1998)



Elevated Railway. Jerez. Spain (2001)



Zizur. Navarra. Spain (2004)



Reyes de Aragón overpass. Zaragoza. Spain (2005)



Overpass in Urnieta. Guipúzcoa. Spain (2008)

PRECAST BEAM BRIDGES



Bembezar aqueduct Sifón over the Guadalquivir River. Córdoba. Spain (1967)



Torre Baró viaduct in the N-II. Barcelona. Spain (1968)



Valdepereira viaduct. Orense. Spain (1970)



BT-II viaduct in the N-II. Barcelona. Spain (1971)



Glorias Catalanas overpasses. Barcelona. Spain (1973)



El Clot footbridge. Barcelona. Spain (1973)



Precast footbridge – Tipo. Barcelona. Spain (1973)



Footbridge in *Plaza de las Glorias*. Barcelona. Spain (1973)



Glorias Catalanas square underpass. Barcelona. Spain (1974)



Sans Airport. Barcelona. Spain (1974)



Renault overpass in the N-I. Madrid. España. Spain (1975)



Castilleja-Sanlúcar overpass in the Sevilla highway. Spain (1976)



Overpass in Alcalá de Henares. Spain (1980)



Campomanes Bridge. León. Spain (1981)



Enlargement and reinforcement of the Rozas pergola. Madrid. Spain (1995)

METAL AND COMPOSITE BRIDGES



Metal footbridge. Barcelona (1973)



Footbridge in Buenos Aires. Argentina (1980)



Avenida de la Albufera viaduct in the M-30. Madrid. Spain (1993)



Plaza de Castilla footbridge. Madrid. Spain (1993)



Rubí viaduct. Barcelona. Spain (1994)



Overpass in the M-40. Madrid. Spain (1994)



Ventas bridge over the M-30. Madrid. Spain (1997)



Amolanas viaduct. Chile (1997)



El Vergel viaduct over the Arga River. Pamplona. Spain (1997)



Puente de los Franceses viaduct. Madrid. Spain (1998)



Anyos bridge. Andorra (2001)



Tina Menor viaduct over the Tina River. Cantabria. Spain (2001)



Viaduct over the M-45. Madrid. Spain (2003)



Bridge over the Valira del Nord River. Andorra (2004)



Viaduct over the N-III. Madrid. Spain (2005)



Encamp bridge. Andorra (2005)



Corso Argentina viaduct. Padova. Italy (2006)



Congost overpass in the A-2. Barcelona. Spain (2008)



Gorostiza bridge. Vizcaya. Spain (2009)



Vial de Borde viaduct. San Sebastián. Spain (2009)



Arroyo Mortera viaduct. Cantabria. Spain (2009)



Sovilla viaduct. Cantabria. Spain (2009)



San Juliá bridge. Andorra (2010)



Ruidellots. Tarragona. Spain (2010)



Nudo Cadagua. Vizcaya. Spain (2011)



Viaduct over the A-6 highway. Las Rozas. Madrid. Spain (2011)



San Pedro viaduct. Cádiz. Spain (2012)



Engordany foundabout. Andorra (under construction)

MOVABLE BRIDGES



Bascule rail and road bridge over the Guadalquivir river. Sevilla. Spain (1991)



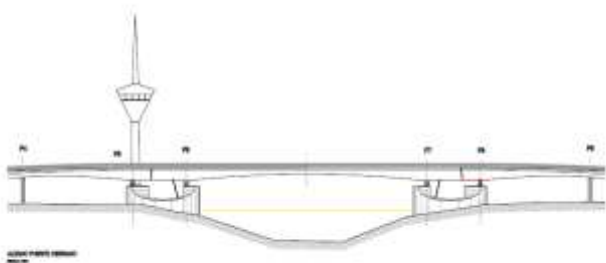
Vertical lift bowstring footbridge at Salford (Manchester). UK (1999)



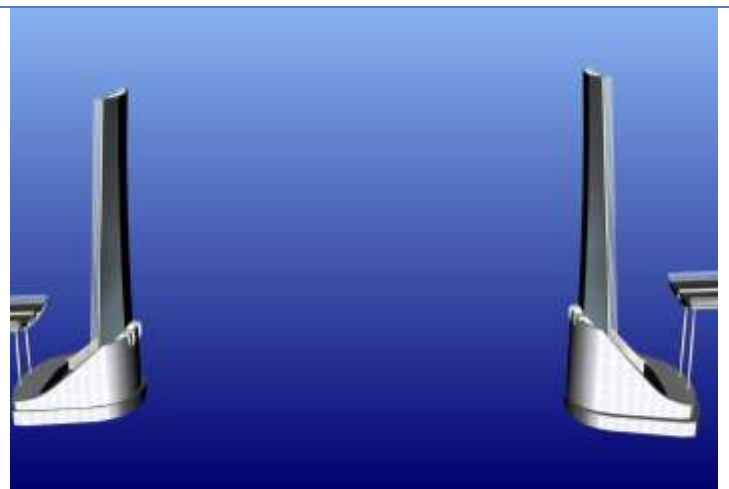
New *Estacio* bascule bridge in La Manga. Murcia. Spain (2003)



Albatros bascule bridge. Mexico (2009)



Bridge over the *Cau Cau* river in Valdivia. Chile (under construction 2014)



Bascule bridge over the Cádiz bay. Spain (under construction 2014)

URBAN UNDERPASSES AND RAILWAY COVERS

	
<i>Diagonal Carlos III</i> urban pass. Barcelona. Spain (1971)	<i>Plaza Castilla</i> urban underpass. Madrid. Spain (1990)
	
M-40 pass under the A-6. Madrid. Spain (1994)	Enlargement of the Cardenal Cisneros overpass. Madrid. Spain (1995)
	
Guillem de Castro underpass. Valencia. Spain (1998)	Railway cover in Oviedo. Spain (1999)



Railway cover in *Villaverde*. Madrid. Spain (2007)



Prestressed concrete slab in the *M-30 tunnels*. Madrid. Spain (2008)



Gregorio Ordoñez viaduct. Guipuzcoa. Spain (2008)



Railway cover in *Hendaya*. France (2009)

TRANSPORTATION STATIONS



Aluche railway station. Madrid. Spain (1987)
Arq: J. Casero



Zamora bus station. Zamora. Spain (1990)
Arq. Francisco Somoza



Atocha railway station. Madrid. Spain (1990-91)
Arq.: R. Moneo



Príncipe Pío railway and Metro station. Madrid. Spain (1994)
Arq: J. Casero



Moncloa Metro and bus station. Madrid. Spain (1994)
Arq: J. Casero



Oviedo railway and bus station. Spain (1999)
Arq: J. Casero



Urbinaga railway station in Vizcaya. Spain (2002)



Enlargement of *Atocha* railway station. Madrid. Spain (2003)
Arq. R. Moneo



La Garena railway station in Alcalá de Henares. Madrid. Spain (2003)
Arq: J. López-Chollet

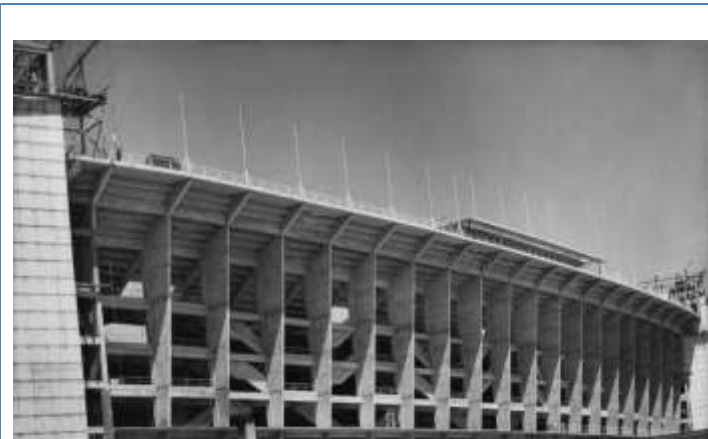


Asamblea station in Madrid. Spain (2008)
Arq: J. Casero



Enlargement of *Atocha* railway station. Madrid. Spain (2010)
Arq.: R. Moneo

SPORT VENUES



Santiago Bernabeu football stadium in Madrid. Spain



San Mamés football stadium in Bilbao. Spain



Colegio Estudio new halls and covered sport ground. Madrid. Spain (2000)

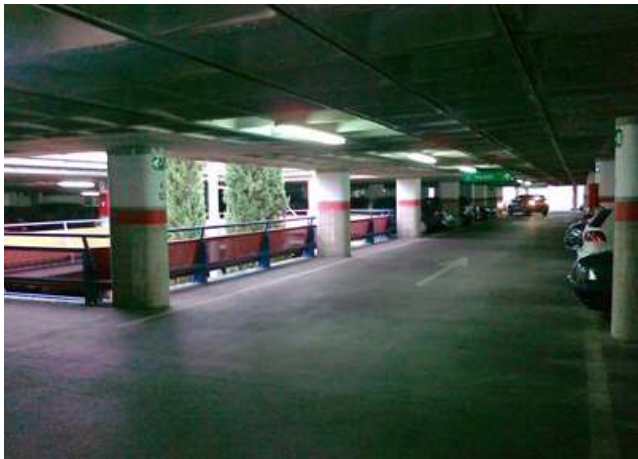


“Miguel Induráin” covered sport ground and velodrome. Navarra. Spain (2002)

INDUSTRIAL VENUES



Water tanks collection. Madrid. Spain



Car park Pinar de las Rozas. Madrid. Spain



Ecore ware house. Madrid. Spain. (2000)



6 Tanks for liquefied gas in Gijón, Tarragona, Barcelona, Cartagena. Spain (2003-2010)

SINGULAR BUILDINGS



Torres Blancas. Madrid. Spain (1963)
Arq: F. J. Saenz de Oiza



La Chantrea church. Pamplona. Spain (1963)
Arq: J. Guibert



Suspended roof of *Club de Campo* riding school. Madrid. Spain (1968)
Arq: Dominguez Salazar



Torre Ciudad sanctuary. Huesca. Spain (1969)
Arq. Heliodoro Dols



Torres Colon. Madrid. Spain (1973)
Arq: A. Lamela



Banco de Bilbao tower. Madrid. Spain (1975-76)
Arq: F.J. Saenz de Oiza



Banco Santander tower. Madrid. Spain (1979)
Arq: Ridruejo



Kursaal auditorium. San Sebastián. Guipúzcoa. Spain (1995)
Arq. R. Moneo



Barajas airport main control tower. Madrid. Spain (1998)
Arq: B. Fairbanks



HYPAR concrete shell in the Oceanographic Park. Valencia. Spain. (1999)
Based on a Félix Candela idea



Colegio Estudio. Madrid. Spain (2000)
Arq. Junquera y Asociados

SPECIAL STRUCTURES



Quentar vault dam in Granada. Spain (1968)



2 KM elevated railway viaduct. Santa Cruz de Campezo. Canarias. Spain (1972)



Artificial tunnel in cantilever for a railway line. *Pensil*. Mexico (1986)



Ronda de la Hispanidad viaduct. Zaragoza. Spain (2002)



Helicoidal stairway in light concrete in Bilbao. Spain (2002)



Cantilever pass over the *Guadalentín* River. Lorca. Spain (2002)



La Massana cantilever. Andorra (2005)



Padova arch. Italy (2006)



Vial de Borde del Urumea cantilever pass. San Sebastián. Spain (2006)



Puerta del Sol railway station canopy. Madrid. Spain (2009)



CG3 splitting in the Pessebre avenue. Andorra (2010)



Cantilever balcony over the Pisuerga River in Valladolid. Spain (2014)

REHABILITATION AND STRENGTHENING OF HISTORIAL CONSTRUCTIONS



Rehabilitation of the roman Aqueduct of Segovia (S I dc). Spain (1974)



Rehabilitation of Pobla del Lillet bridge (S XIII)



Rehabilitation of *San Pere de Ruidevitlles aqueduct* (S XIII)



Rehabilitation of *Castellbell y el Vilar bridge* over the Llobregat River (S XIII)



Rehabilitation of *Arfá bridge* over the Segre River (S XIII)



Rehabilitation of *Puente de Piedra* (S XIII) Zaragoza. Spain (1988)



Rehabilitation of Puente la Reina bridge (S XII). Navarra. Spain (1989)



Rehabilitation of the Kursaal bridge (1912). San Sebastián. (1991)



Rehabilitation and strengthening of the *Puente del Pilar* (S. XIX). Zaragoza. Spain (1992)



Estructural evaluation of the *Torre de Comares*. (S XIV). La Alhambra. Granada. Spain (1995)



Rehabilitation and strengthening of the *Puente de Hierro* (S XIX). Murcia. Spain (2004)



La Zarzuela racetrack tribunes and canopy rehabilitation (1935). Madrid. Spain (2009)



Rehabilitation *Nave Boetticher* (1950). Madrid. Spain (2011)