

Civil Engineering  
Structural Engineering  
Architecture  
E&M Engineering

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## 1. ABOUT US

We are committed to providing our clients with the best quality engineering service through delivering integrated solutions in building construction and civil works.

Increasing complexity of building process demands ever higher levels of specialization and appropriate specialities coordination.

We achieve this through the resolution of every construction challenge, utilizing an integrated approach to the project from the early stages up to construction, through every phase of the project development process thus optimizing profitability.

3D3 clients feel confident about the experience of engineering and construction specialists who contribute to the success of their projects.

## 2. PROFESSIONAL SERVICES

The services provided by 3D3 INGENIERÍA are based on collaboration from the very beginning of the preliminary plan up to the construction phase of the building. We can provide the following services:

### 2.1. Architecture and construction

- Prior studies and feasibility studies
- Conceptual design and solution study
- Preliminary drafts
- Construction projects
- Technical assistance to building works
- Technical site management
- Quantity survey
- Rehabilitations and renovations
- Sectorization and evacuation studies
- Contracting and recruitment process assistance
- Deadlines and costs monitoring during the construction phase

### 2.2. Structural engineering

- Prior studies and feasibility
- Preliminary drawings. Structural consultancy
- Conceptual Engineering and solution study
- Project tender documentation
- Calculations and structural construction projects:
  - o Structural Geology
  - o Shallow and deep foundations
  - o Special foundations, underpinning and terrain improvement
  - o Steel structures. Composite steel and concrete structures
  - o Reinforced concrete structures
  - o Pre-stressed and post-tensioned concrete structures
  - o Pre-cast concrete structures
  - o Structural reinforcements
- Technical assistance to building works
- Technical site management
- Quantity survey
- Expert evaluation of building works and projects
- Rehabilitations and renovations
- Recalculation of structures
- Project reviews
- Contracting and recruitment process assistance

## 2.3. E&M Engineering

Prior studies and feasibility studies  
Preliminary drafts  
Electrical Engineering  
Lighting installations  
HVAC installations  
Gas, sanitary and central heating installation  
Fire protection engineering  
Solar energy power facilities  
Microcogeneration and wind power microgeneration  
Quantity survey

## 2.4. Civil Engineering

Prior studies and feasibility studies  
Preliminary plans  
Conceptual engineering and solution study  
Project tender documentation  
Civil works structures:

- Structural Geology
- Shallow and deep foundations
- Special foundations, underpinning and terrain improvement
- Retaining and screen walls
- Frames and sunken structures
- Longitudinal and transverse drainage
- Earthworks and roadways design
- Bridges and footbridges.
- Steel auxiliary structures

Quantity survey  
Studies of manoeuvres, lifts, mounts and dismounts  
Shop drawings review  
Technical assistance to building works  
Expert evaluation of building works and projects  
Recalculation of structures  
Project reviews

### 3. PROJECT AREAS

The firm's expertise is at the service of clients in different project areas of Building, Civil Engineering and Architecture such as:

- Civil works for industrial and power generation plants
- Industrial and storage buildings
- Special foundations for equipment
- Linear works
- Hydraulic works
- Temporary and auxiliary constructions
- Drainage and channeling
- Rehabilitations and renovations
- Commercial and Administrative buildings
- One-off buildings. High-rise buildings
- Healthcare, cultural and educational buildings
- Sport and religious buildings
- Public audience and multi-purpose buildings
- Housing

## 4. COMPETENCIES

3D3 INGENIERÍA stands out for the versatility and experience of its staff.

Due to the increasing demand for internationalization of the engineering services, we are familiar with the use of international standards in the development of projects and works:

- International standards:
  - International Building Code (IBC)
  - Eurocodes
  - EN-ISO Standards
- Internationally recognized national standards:
  - U.S. Regulations: ASTM / ACI / ANSI / AISC / ASME / ASCE
  - British Standards
  - Canadian Standard CAN / CSA

3D3 INGENIERÍA can develop projects and technical assistance, with a complete documentary and graphical development, in the following languages:

- Spanish
- English
- French
- German
- Italian

3D3 INGENIERIA staff include the following professional levels:

- Civil Engineers
- Industrial Engineers
- Architects
- Technical Architects / Quantity surveyors
- Technical Civil Engineers

## 5. TEAM

The 3D3 INGENIERÍA team of professionals and collaborators provide you with an efficient service in different project fields.

Currently the 3D3 INGENIERÍA staff is made up of the following professionals:

**Raúl Lirola López** obtained a Master's Degree in Architecture at the Escuela Técnica Superior de Arquitectura de Madrid (E.T.S.A.M.) in 2001 specializing in building construction.

He started his career in October 2000, working up to December 2002 for Fernando García-Ochoa's architecture studio.

In January 2003 he was hired by **INGENIERÍA IDOM INTERNACIONAL S.A.**, working there until September 2005. He formed part of the structural design team in the ARCHITECTURE AND BUILDING CONSTRUCTION AREA. Subsequently was pointed as head of the structural design team.

In September 2004 he started to work in parallel for **3D3 Ingeniería**.

In October 2005 he fully joined **3D3 Ingeniería** as Senior Engineer.

Languages: Spanish, English, German.

**José Miguel Iglesias Fernández** obtained a Master's Degree in Industrial Engineering at the Escuela Técnica Superior de Ingenieros Industriales de Madrid (E.T.S.I.I.M.) specializing in Mechanics Intensification in Construction.

He started his professional career in March 1998, working up to February 2000 for the Reinforced Concrete Pipes Manufacturers Association (**ATHA**) carrying out technical development of products.

In March 2000 he was hired by **INGENIERÍA IDOM INTERNACIONAL S.A.**, forming part of the structural design team in the ARCHITECTURE AND BUILDING CONSTRUCTION AREA.

In October 2000 he was hired by **BUREAU VERITAS ESPAÑA** as a structural project reviewer in the Technical Control Section on preparation of building insurance reports for housing. Then he carried out coordination work of the structural review team of the company headquarters in Alcobendas, Madrid.

In September 2004 he started to work in parallel for **3D3 Ingeniería**.

In May 2006 he fully joined **3D3 Ingeniería** as Senior Engineer

Languages: Spanish, English.

**Norberto Rivas González** obtained a Degree in Civil Engineering at the Escuela de Ingenieros Técnicos de Obras Públicas de Madrid (E.I.T.O.P.).

He started his professional career in 1999 working for **Copredije** carrying out health and safety studies for building works.

In 2001 he was hired by **BENITO S.A.** as a site manager for the civil works area taking part in the works for electrical substations for Iberdrola and Unión Fenosa.

In 2000 he was hired by **CPV-CEP IBÉRICA** (technical control company) as a structural analyst in concrete and steel and composite steel and concrete structures.

In June 2004 he was hired by **INGENIERÍA IDOM INTERNACIONAL S.A** forming part of the structural design team in the ARCHITECTURE AND BUILDING CONSTRUCTION AREA.

In January 2006 he joined **3D3 Ingeniería** as Senior Engineer.

Languages: Spanish, English.

**Raúl Gascón Martínez** obtained a Master's Degree in Architecture at the Escuela Técnica Superior de Arquitectura de Madrid (E.T.S.A.M.) in 2004 specializing in building construction.

He started his professional career in 1999, working up to 2000 for **IN SISTEMAS** on facade stabilization design for housing and public buildings rehabilitation projects.

Working individually he carried out in 2003 the structural calculations for the cafeteria of the Móstoles Hospital in Madrid. Subsequently he did the structural calculations for the Camarena health centre in Toledo.

In 2004 he was hired by **INGENIERÍA IDOM INTERNACIONAL S.A.**, working up to 2006 as part of the structural design team in the ARCHITECTURE AND BUILDING CONSTRUCTION AREA. Subsequently he took part in the technical audit of 34 buildings in Paris, owned by SIIC de Paris, undertaking the visits to the latter and carrying out the technical reports on architecture, structure and utilities.

In January 2006 he joined **3D3 Ingeniería** as Senior Engineer.

Languages: Spanish, English, French.

**Alberto Arias Gude** obtained a Master's Degree in Architecture at the Escuela Técnica Superior de Arquitectura de Madrid (E.T.S.A.M.) in 2008 specializing in building construction.

He started his professional career in March 2005 working for **Zacarías González architecture office** tendering for the FCC headquarters building in Madrid.

In June 2005 he joined the **Estudio de Arquitectura Armando Valenzuela ORV** working there up to March 2006 carrying out housing construction projects.

In January 2007 he was hired by the **Pedro Jaén and Jimena Robles architecture office**, working there up to February 2008 carrying out building construction projects as well as monitoring and technical assistance to works.

In March 2008 he joined **3D3 Ingeniería** as Junior Engineer.

Languages: Spanish, English.

**Emilio Yusta Quero** obtained a Master's Degree in Architecture at the Escuela Técnica Superior de Arquitectura de Madrid (E.T.S.A.M.) in 2004 specializing in building construction.

He started his professional career in April 2004 working for **Luciano Moreno, Arqoproyectos architecture office** on architectural project competitions.

In July 2004 he was hired by **VALLADARES INGENIERÍA** working up to December 2005 forming part of the structural design team in the Structures Area.

In January 2006 he was hired by **INGENIERÍA IDOM INTERNACIONAL S.A** working up to May 2007 forming part of the structural design team in the ARCHITECTURE AND BUILDING CONSTRUCTION AREA.

In June 2007 he joined **CETA2 INGENIEROS** working there up to July 2013 as Senior Engineer.

In August 2013 he joined **3D3 Ingeniería** as Senior Engineer.

Languages: Spanish, English, German.



**M<sup>a</sup> Soledad Muñoz Díaz** obtained a Master's Degree in Civil Engineering at the Escuela Técnica Superior de Ingenieros de Caminos, Canales y Puertos de Madrid in 2008 specializing in Structures.

In 2010 she obtained a Master's Degree in Structures, Foundations and Construction materials.

She started her professional career in 2004, working in the Engineering department of PROINTEC.

In July 2014 she joined **3D3 Ingeniería** as Senior Engineer.

Languages: Spanish, English.

**Carlos Fernández Muñoz-Delgado**, obtained a Degree in Technical Architecture and Building Engineering at the Camilo José Cela University in 2012.

Master degree in Energy Efficiency of Buildings at the Camilo José Cela University in 2013

He started his professional career in 2013 working as at the Oficina Técnica de Accesibilidad de Asturias.

In June 2015 he joined **3D3 Ingeniería** as Junior Engineer.

Languages: Spanish, English.

**Isabel Benito Berliches** obtained a Master's Degree in Architecture at the Escuela Técnica Superior de Arquitectura de Madrid (E.T.S.A.M.) in 2001 specializing in building construction.

She started her professional career in 2002 working as a Junior Architect at RUBIO y ALVAREZ-SALA Architecture Bureau.

In 2007 she founds MUTE ARQUITECTURA, an architecture bureau where she developed her technical and business career

In February 2014 she joined **3D3 Ingeniería** as Senior Engineer.

Languages: Spanish, English, German.

**Nuria Cabrerizo Royo** obtained a Master's Degree in Architecture at the Escuela Técnica Superior de Arquitectura de Madrid (E.T.S.A.M.) in 2004 specializing in building construction.

She started her professional career in 2003 working as a Junior Architect at **DISINARC S.L.**

In September 2004 she joins VALLADARES INGENIERÍA, working as lead draftsman and Junior engineer.

In April 2006 she stars working for CETA 2 INGENIEROS S.L. as lead engener for Building projects

In July 2014 she joined **3D3 Ingeniería** as Junior Engineer.

Languages: Spanish, English.

**Clara Martínez Álvarez** obtained a Master's Degree in Architecture at the Escuela Técnica Superior de Arquitectura de Madrid (E.T.S.A.M.) in 2005 specializing in building construction.

She started her professional career in 2003 working as a Junior Architect for the engineering bureau **Asesoramiento Técnico e Inmobiliario**.

In February 2015 she joined **3D3 Ingeniería** as Senior Engineer.

Languages: Spanish, French.

**Raúl Garrido Pérez** obtained a Degree in Architecture at the Escuela Técnica de Arquitectura de Madrid in 2008.

He started his professional career in June 2004 working as draftsman for the Engineering bureau IDEEE.

In July 2014 he joined **3D3 Ingeniería** as Junior Engineer.

Languages: Spanish.

In addition to the permanent workforce, ENGINEERING 3D3 has the support of the following professionals:

**Pedro Valiente Bravo** obtained a Degree in Technical Architecture at the Escuela Universitaria de Arquitectura Técnica de Madrid (E.U.A.T.M.) in 1998

He began his professional experience in July 1998 on Arista Servicios y Obras, S.L.

Later he began his career as self-employed technical architect, performing technical collaborations in drafting and implementing projects measurements and with the Project Manager in monitoring work, execution control, cost review and budgetary control for Estudio de Arquitectura Rubio&Álvarez-Sala, Estudio de Arquitectura de Juan Carlos Fernández, Métrica TIP (Taller Integrado de Proyectos), Aybar-Mateos Arquitectos and Gerens Hill International

Since 2009 he collaborates regularly with 3D3 INGENIERÍA in the development of projects and technical site managements

Language skills: English, Spanish

**Sergio Cabo Bolado** obtained a Master's Degree in Civil Engineering at the University of Cantabria in 2001, specializing in structures.

He began his professional experience in April 2001 in APIA XXI, performing construction supervision of the A-381highway from Jerez to Cadiz.

In March 2002 he works in Bilbao for the architectural bureau EAIDU San Andres, in charge of the civil engineering department.

In March 2006, he works in Milan for Semat Spa, metal contractor.

From November 2007 until today he works for the engineering firm D'Appolonia, where he develops civil engineering projects and technical site managements.

Since 2011 he collaborates regularly with 3D3 INGENIERÍA in the development of civil engineering projects and preparation of tenders and technical specifications.

Language skills: Spanish, English, Italian

## 6. CLIENTS

Here are some of the most representative customers of 3D3 INGENIERÍA.



ferrovial



JACOBS®



ABENGOA



nexus  
delivery  
A greater connection

