



DANIEL SANTOS

BSc + MSc Civil Engineer. University of Cantabria. 2005.

MSc Master in Soil Mechanics and Foundation Engineering. CEDEX, Geotechnical Laboratory. 2006

HEAD OF ENGINEERING DEPARTMENT

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Postgraduate Courses:

- 2016** Practical injection workshop for underground construction. Hagerbach, Switzerland, 12th-13th April 2016.
- 2014** Course of numerical modeling, FLAC3D (40 hours) Itasca Consultores, S.L. February 2014.
- 2013** Technical Seminar: "Tunnels of small and medium diameter in urban environment: New Trenchless Technologies". AETOS. Madrid, May 23th, 2013.
- 2010** Course of Tunnels: Construction and Technical Assistance. 180 hours. Politechnical University of Madrid. March 5th to July 1th, 2010.
- 2010** Course of EHE-08 for work execution. 40 hours online. Structuralia. Madrid, February 1th to March 31th, 2010.
- 2009** Course of Hydrogeology and Numeric Modeling of Groundwater Flow: The MODFLOW program. 40 hours online. Tecniberia-Structuralia. Madrid, September 1th to December 15th, 2009.
- 2008** "Course of Effective Presentations and Public Speaking Techniques. 16 hours. Barna Consulting Group. Madrid, April, 24th-25th, 2008.
- 2007** Course E0 of Three-dimensional Structures Calculation. Tricalc Program. 16 hours. Arktec, S.A. Madrid, July 16th-20th, 2007.
- 2005** Course of Autocad 3D. Aula Mentor. October 1th to November 30th, 2005.
- 2000** "Course of Topography Applied". 20 hours. University of Cantabria. August, 28th to 1th September, 2000.

Professional experience:

- 2011 – To date** **SUBTERRA INGENIERIA, S.L.:** Head of Engineering Dept.
- 2009 – 2010** **PROINTEC:** Geology and Geotechnical Department. Project Manager, responsible for design, development and management of studies and geological and geotechnical projects.
- 2006 – 2009** **TERRATEST CIMENTACIONES:** Geology and Geotechnical Department.
- 2005** **JYP CANTABRIA INGENIEROS:** Heavy Foundations and Diaphragm Walls Department.
- 2004** **AYUNTAMIENTO DE CABEZÓN DE LA SAL:** Building Department.

Specific experience:

The professional activity of Mr. Santos started in 2004 in the field of Civil Engineering. Mr. Santos has 10 years of professional experience and he has been involved in numerous underground works (Building, roads, railways, hydraulics projects and mining). Mr. Santos has international experience and he has participated in projects in Spain, Peru, Chile, Guatemala, Hong Kong, Costa Rica, Nicaragua, Egipto, Arabia Saudi and Brazil.

Environment:

2009 Geological and Geotechnical Study for the Construction Project of the Environmental Center of Valdilecha (Madrid). Owner: COMMUNITY OF MADRID GOVERNMENT.

Building:

2008 Final design of the piles retaining wall for the "Pinos del Limonar" underground Parking in Málaga. Owner: SMASSA

2008 Final design of the single bore multiple anchors in the diaphragm retaining wall of the building "El Corte Inglés" in Tarragona. Owner: EL CORTE INGLÉS

2008 Final design of the micropiles and diaphragm retaining walls of a residential building in C/ Trinidad, Castellón. Owner: FOCONSA

2008 Final design of the diaphragm retaining walls of the Nursing University Building in Sevilla. Owner: TECONSA

2008 Final design of the diaphragm retaining wall and the piles foundation of the Urogallo Building in Pola de Siero. Owner: CNES SILCA

2007 Final design of the diaphragm retaining wall of the building "El Corte Inglés" in El Ejido. Owner: EL CORTE INGLÉS

Harbors:

2010 Geotechnical report, improvement treatment of the ground for the works and facilities of a concession of storage and distribution of general merchandise in the dock of Cantabria at the Tarragona Port. Owner: EUROPORTS

Airports:

2010 Geological and Geotechnical Study for the Project of Sharm El Sheikh International Airport". Owner: EGYPTIAN AIRPORT COMPANY

Highways and Roads:

2014 - 2015 Constructive Desing. Américo Vespucio Oriente. Stretch Av. El Salto – Príncipe de Gales (length of the tunnel 8.360 m). CHILE. Owner: OHL-SACYR CHILE

2013 - 2014 Constructive Desing, Tunnels: Step 2 Program "Santiago Centro-Oriente". Road single-bore: Kennedy (1.150 m), CH-CS (292 m) and Lo Saldes (90 m). CHILE. Owner: SACYR

2013 Tender Project. Tunnel Road: drilling and blasting method. (Connection Sha Tau Kok Road, Fanling Highway (Liantang-Heung Yuen Wai Boundary Control Point. Contract 2. Hong Kong) Owner: Obras Subterráneas, S.A.

2012 Tender Project. Hong Kong Airport connection through an undersea road tunnel (Tuen Mun - Chek Lap Kok Link - Subsea Tunnel Connection Northern Section. HY/2012/08 Contract). SPAIN. Owner: OHL.

2010 Geological and Geotechnical Study for the Construction Project 1st Phase of La Laguna South Bypass. Section TF-S – TF-265. SPAIN. Owner: CANARY ISLANDS GOVERNMENT.

2009 Geological and Geotechnical Study of the instability of the North Sector - P.K. 0 +380 Cordiñanes road of Cain (León) SPAIN. Owner: NATIONAL PARKS, MINISTRY OF ENVIRONMENT OF SPAIN.

2009 Technical Assistance to the work Construction of the second ring of Donostia-San Sebastián. Section: Urumea Link– A-8 Link in Rentería. Project N°4, West side, Menditxo Tunnel. SPAIN. Owner: BIDEGUI.

2009 Geological and Geotechnical Study for the Construction Project of a radial road to Etxebarri from the N-634 road. SPAIN. Owner: NTERBIAK.

Conventional Railways and Underground Metros:

2014 Tender design of Contract package CW-1-Section of Mecca Subway. ARABIA SAUDI. Owner: ISOLUX CORSAN.

2011 – 2012 Initial Design for the Sub-structure of the railway Palmas de Gran Canaria y Maspalomas. Section 4: Polígono industrial "El Goro" – Barranco de Guayadeque. Owner: EYSER.

2010 Geological and Geotechnical Study for the structures foundations of the Modify Project of the Loiola Viaduct. Construction Project of the railway Lasarte-Hendaia. Section: Loiola-Herrera". Owner: VASC COUNTRY GOVERNMENT.

**Hydropower and
Hidraulic
Projects:**

2014 - 2015 Constructive Design CH Renace 3. GUATEMALA. Owner: COBRA.

2014 Constructive design and geotechnical study PH-3 and PH Cuetzalin, Veracruz. MÉXICO. Owner: HIDROPROYECTOS.

2012 - 2013 Constructive Design CH Renace 2. Tunnel 1 (3.419 m) and Tunnel 2 (4.025 m). GUATEMALA. Owner: COBRA.

2013 Construction Project. Tunnels Majes-Siguas. Owner: COBRA-COSAPI

2012 Final Design Project of Connection Tunnel. Hydroelectric Power Station of El Torito. Turrialba, Puerto Rico. Owner: GAS NATURAL FENOSA.

2011 Upgrading works at Stonecutters island sewage treatment works-effluent tunnel and disinfection facilities (Harbour Area Treatment Scheme Stage 2^a. Contract DC/2009/18. DSD. Hong Kong). Owner: JV. OSSA-KADEN CONTRUCTION-CHINA RAILWAY GROUP.

2011 Final Design Project of Peares III Hydroelectric Power Stations. Owner: SOCOIN.

2011 Construction Project of the underground excavations of Larreynaga Hydroelectric Plant (Nicaragua). Owner: Obras Subterráneas S.A.

**Mining
Projects:**

2012 - 2013 Mining Waste Management Plan. Las Cruces Project. SPAIN. Owner: Cobre Las Cruces.

Preliminary Project of final abandonment of the mining proceedings in Corta Atalaya (Río Tinto, Huelva). SPAIN. Owner: EMED Tartessus.

Mining Waste Management Plan. Rio Tinto Project: Mine-dump materials. SPAIN. Owner: EMED Tartessus.

2011 Final Design of Construction Works for mineral transport tunnel form crusher to intermediate good pile. Toquepala Deposit (length of the tunnel 2.027 m). Tacna, PERÚ. Owner: Obras Subterráneas S.A.

**Assistance during
tunnels
construction:**

2013 – 2014 Assistance during construction Step 2 Program "Santiago Centro-Oriente". Road single-bore: Kennedy (1.150 m), CH-CS (292 m) and Lo Saldes (90 m). CHILE. Owner: SACYR.

2013 – 2014 Assistance during construction Stage 1 Programe "Santiago Centro-Oriente" (Tunnel of Vivaceta: 580 m) CHILE. Owner: COSTANERA NORTE.

2011 – 2013 Assistance during construction CH Torito (length of the tunnel 3.700 m). Turrialba, COSTA RICA Owner: Gas Natural Fenosa.

2011 – 2012 Final Desing and assessment during construction. CH La Confluencia. Tunnel of El Portillo (length of the tunnel 11.290 m). CHILE. Owner: HOCHTIEF CONSTRUCCION AG.

2009 – 2010 Portal Reinforcement Design. Modified Project N°4 of the Construction Project of the second ring of Donostia. Menditxo Tunnel, West side. Section: Enlace del Urumea-Enlace A-8 en Rentería. SPAIN. Owner: BIDEGUI.