

Professional Summary:

Mr. González has four years of experience in structural design and review, seismic design, and design of structures for drinking water and wastewater treatment plants (DWTP and WWTP), including the design and review of metallic structures (warehouses and roofs over 2000m²), quantification of work quantities, evaluation, expansion, and modification of existing structures, also in paving and rehabilitation of highways.

He has experience in structural dynamic, and finite element modeling (FEM) used in the seismic design of buildings and infrastructure for the approach, development, and solution of structural problems in software such as MidasGen, ETABS, SAP2000, and Risa 3D. He has also studied software development in Python, Java, and Visual Basic.

Mr. Gonzalez holds a Specialization in Construction Management at EAFIT University (Medellin, Colombia). He was also an academic monitor in Computational Modeling at EAFIT University. He is a registered engineer in Colombia (Civil Engineer).

As Forensic Engineer for EFI Global Colombia, Santiago will provide independent engineering consulting services in structural analysis and peer review on large/medium/small property losses to facility owners, insurance carriers and re-insurers, independent adjusters, and attorneys in Colombia and throughout Latin America.

Areas of Expertise:

- Forensic Engineering
- Structural and Finite Element Analysis
- Paving and rehabilitation of highways
- Consulting Engineering Services

Licenses and Certifications:

Registered Engineer in Colombia, #011037-0506934 (Civil Engineering)

Pilot of RPAS operations (Remotely Piloted Aircraft System)

Project Experience:**Forensic Engineering:**

Concrete Face Rockfill Dam, Colombia. Forensic engineering - Evaluation of cause and origin of filtrations in the right abutment. Evaluation of construction documents and mitigations works.

4G Highway, Colombia. Participation in forensic investigation (cause and origin) of partial loss of bank due to a scour process.

3-story building for industrial use, Colombia. Evaluation of vulnerability studies and reinforcement of structure designed in 1951, with three extensions throughout time under different regulations (Decree 1400 of 1984 and NSR-98).

Wood structure for hotel use, Costa Rica. Study of the collapse of a wood guardrail anchored with screws and nails to a concrete structure. Mechanical physics evaluation of the fall trajectory of a person from the second floor of the structure due to the failure of the guardrail.

Concrete Bridge, Colombia. Forensic investigation: evaluation of the extent of damage, concept of repair works and their associated cost due to flood.

Household Appliances and Vehicles Warehouse, Ecuador. Participation in the forensic investigation of the cause and origin of a fire loss.

Supporting the local team with the evaluation of buildings in Western Florida, after catastrophic Hurricane Ian.

Selected building projects of structural design and review:

Mr. Gonzalez has participated as a structural engineer in projects developed in Colombia, highlighting multiple works with EPM. Concrete and steel buildings. Some selected projects:

- WWTP Tranvía (Rionegro, Antioquia)
- DWTP Manantiales (Bello, Antioquia)
- WWTP Escobero (Envigado, Antioquia)
- Business Center "Centroaceros" (Guarne, Antioquia)
- La 30 Building (Medellín, Antioquia)
- Royal Living Building (Medellín, Antioquia)
- Coliving Bolivariana Building (Medellín, Antioquia)
- Plaza Fabricato (Bello, Antioquia)

Selected infrastructure project experience:

East Tunnel Medellín, Colombia. Paving in the Medellín - Rionegro direction from the Baltimore sector to the first toll. Scheduling and control of time and work activities, work log, control, ordering and management of materials and resources, quality inspection of materials, control of equipment and machinery, decision making, and personnel management. The project consisted of 24 km of road, including eight bridges, five viaducts, and three sections of tunnels.

Road interconnection Yatí-La Bodega, Magangué, Colombia. Paving more than 12 km of road, including two bridges, Roncador with 2.3 km (one of the longest in Colombia) and Santa Lucia with 1.0 km, both bridges cross the Magdalena River. Also, 3.0 km of road were improved and rehabilitated. Work log, management, control and purchase orders of materials and resources, quality inspection of materials, control of equipment and machinery, decision making, and personnel management.

Professional Experience:

EFI Global | Colombia. Forensic Engineer. January 2023 – present.

Villegas y Ramirez S.A.S, Structural Design Engineer, 2019 – 2022.

Lugón S.A.S, Junior Engineer, 2019.

Education:

Course on Pilot of RPAS operations (Remotely Piloted Aircraft System), Medellín, 2023.

Specialization in Construction Management, EAFIT University, Medellín, 2023.

Diploma in Technical Supervision in building projects according to NSR-10, 2021.

Civil Engineering - Academic Exchange, Tec de Monterrey, Puebla, México 2018.

Course on applied geology and geomorphology in studies and construction of hydroelectric projects, EAFIT University, Medellin, Colombia, 2017.

Civil Engineering, EAFIT University, Medellin, Colombia, 2019.