



Leonardo Garzon, PE  
Managing Director LatAm

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**Full Name:** Leonardo Garzon

**Job Title:** Managing Director Latin America

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**Mobile Phone Number:** + (1) 786 637 4393

**Years of Experience:** Since 1995



#### **Biography:**

With more than twenty-Five years in the forensic engineering, construction and insurance industries, Mr. Garzon has extensive experience in the evaluation, risk assessment, forensic investigation, and remedial design for a variety of structures and infrastructure projects. He has assisted leading insurance and reinsurance companies, their representative attorneys, and independent loss adjusters in high-value disputes, evaluated the scope and nature of losses, and provided pre-loss risk assessments in the Energy, Oil, Commercial, transportation and Residential sectors throughout the U.S. the Caribbean and Latin America.

Mr. Garzon has also conducted building envelope assessments on behalf of Condominium Associations, developers and building owners, developed scope of damage repairs, bid documents, and participated during the Construction Administration phases at multiple locations while repairs were implemented.

#### **Expertise:**

- Building Envelope Assessments, Remedial Repair and Cause and Origin Investigations
- Building Envelope Hurricane Vulnerability Assessments
- Construction & Engineering – Natural Resources, High-Rise, and Commercial Construction
- Forensic Engineering Cause & Origin Investigation
- Loss Control Inspections
- 3D Building Information Modeling (BIM) for Claims
- CAT Management

#### **Education / Industry Training:**

- M.S. Civil Engineering/Engineering Mechanics, 2004, Columbia University, New York.
- B.S. Civil Engineering, 1995, National University of Colombia

### Professional Registrations:

- Registered Professional Engineer in the State of Florida. PE License # 73658

### Professional Lectures:

- Latin America Claims Seminar. LatAm outlook and unexpected opportunities, London 2019.,
- Miami Latin American Claims Reinsurance Forum. Regional Issues with BI in the Contexts of mining & Energy Losses. Panel Discussion on the use of Building Information Modeling Tools in Claims. 2019
- Flood Protection and the impact of Hurricane Harvey in the Oil Industry. Onshore Energy Conference, London 2017.
- The Four Pillars of Construction to Improve Risk Selection” Presentation to Brokers. Sao Paulo, Brazil. June 2015.
- Loss Mitigation and Risk Selection” Hannover Re, Bogota, Colombia. May, 2014.
- The Collapse of the World Trade Center – the Collapse Mechanism,” Second International Symposium of Special Structures, State University of Vale do Acaraú, Sobral, Brazil, September, 2004

### Representative Assignments:

World Trade Center Collapse, New York, NY. Member of the Emergency Response Team. Responsible for damage assessment of buildings, long-span pedestrian bridges and other structures in the proximate collapse area affected by fire, impact, and loss of stability. Designed truss bridges at the site using steel members from the WTC Towers to move heavy equipment throughout the WTC site during stabilization and recovery efforts.

Empire State Building, New York, NY. Structural analysis of the upper 25 floors of the 1,250-foot-tall skyscraper built in 1930, and the 160-foot antenna tower that was added in 1950 on top. The project also included analysis and design of structural reinforcement of more than 100 rivetted connections associated with modifications made to the antenna tower since it was built, and wind loads stipulated by the NYC Building Code and other industry standards.

Florida International University – FIU Bridge Collapse, Miami, FL. Conducted site observation and documentation of the collapsed structure soon after the collapse occurred. Reviewed possible collapse mechanism scenarios as part of the collapse analysis performed on behalf of the Builder’s Risk insurers. Review sequence and construction schedule.

Seminole Hard Rock Hotel & Casino Guitar Tower, Hollywood, FL. Condition assessment and cause and origin investigation of the building envelope and roof waterproofing system of the 36-story guitar tower, following heavy rains that flooded multiple floors through the building.

Panorama Tower, Brickell, Miami, FL. Condition assessment of the structural system and building envelope of the 85-story building following foundation differential settlements during construction.

Vi at Aventura, Remedial Work, Aventura, FL. Investigation of the façade system of a 520,000-square-foot luxury senior living community consisting of two 23-story apartment towers and associated support buildings, to determine the nature of cracking and delamination in the stucco on the CMU envelope system. Design for a new EIFS cladding system that can withstand wind pressures up to 170 mph. Work also included condition assessment and analysis of the post-tensioned concrete slab of a raised plaza and design for replacement of defective waterproofing. Engineers used Construction Information Modeling (CIM) to document the progress of construction, which was phased to allow the complex to remain fully operational.

The Continuum on South Beach, Miami, FL. Condition assessment of the building envelope including windows,

The Beach Club Hallandale Continuum, Hallandale Beach, FL. Condition assessment of the 44-story towers building envelopes including windows, doors, stucco, and other envelope components, with the purpose of developing repair details and bid documents.

American Airlines Arena, Display Framing Evaluation, Miami, FL. Structural evaluation of existing steel envelope framing at four locations to accommodate loads imposed by upgraded exterior screen displays.

Marriott Hotel and Resort, Grand Cayman, Cayman Islands. Inspection of the envelope and building lateral system and evaluation of their capacity to withstand wind loads according to the provisions of the Florida Building Code 2004 for a High Velocity Hurricane Zone.

Total Plaza Building, Houston, TX. Damage assessment of a 35-story tower located in downtown Houston, which suffered structural and building envelope damage in 2008's Hurricane Ike.

Puerto Rico Electric Power Authority (PREPA), 2020 Earthquake. Lead engineer assessing the damages at multiple Power Plants, Dams, open channels and other PREPA facilities throughout the island, following the 2020 EQ.

St. Barth Private Villas. Structural failure of solar panel structural elements following Category 4 Hurricane Maria Wind forces in 2017.

Hidroituango Power Plant, working on behalf of one of the insurers for the Surety Policy, reviewed the design and construction documents, construction logs, construction schedule and other relevant information, following the 2018 collapse of the diversion tunnel of the 2,400 MW Power Plant located in Antioquia, Colombia. The project is a part of the initiative undertaken to exploit the hydroelectric potential of the Cauca River in its middle stretch. The project is being developed by Colombian multi-utility group EPM (Empresas Publicas de Medellin).

GDF Suez, Dos Mares Prudencia Power Plant Damage Assessment, Chiriquí Province, Panama. Condition assessment of the concrete Dam structure and intake channel following flooding and collapse of one of the embankments. Work performed included estimating the scope of damage and assisting executive adjusters with the review and management of information provided by the insured.

Egerba – Chancay and Rucuy Hydroelectric Penstock Loss, Peru. Review aspects of the loss associated with a landslide that affected portions of the penstock structure.

Hidroagoyan - Pucara Hydroelectric Power Plant Tunnel and Road Assessment, Quito, Ecuador. Condition assessment of the 5,400 meters long tunnel and access road following a landslide due to possible seismic activity. Work performed included on-site observation of the damaged tunnel and access road along the damaged area as well as review of geotechnical, soils and inspection reports and evaluation of the scope of work required to repair the facilities to a condition prior to the earthquake.

Itaguaí Submarine Base, Brazil. Developed Re-insurer's Risk Management Program and visited the site during construction to review progress of construction of the state-of-the-art nuclear submarine base and to discuss risk management and construction monitoring of key components of the project site.

Chavimochic III, Peru. Developed Re-insurer's Risk Management Program for the \$850 Billion USD project to irrigate land in the Chicama Valley, north of Trujillo. The scope included evaluating the exposure of the project components such as open channels, tunnels and dams to the flood, earthquakes and other natural hazards.

Multiple Road and Port Projects 4G Colombia. On behalf of re-insurers, visited multiple construction sites to perform Loss Control monitoring, including reviewing aspects of the construction of roads, tunnels, and bridges as well as flood management and slope stability measures implemented during construction.

Iron Mountain Fire Loss – Buenos Aires, Argentina. Conducted site observation and documentation of the partially collapsed structure, following a fire at the warehouse facility. Reviewed possible collapse mechanism scenarios as part of the collapse analysis and determined scope of damage and reconstruction budget and schedule.

Gerald Desmond Bridge, Long Beach, CA. As part of the Risk Management Program of a major Re-insurance company, visited the project site to meet with the Port Authority, contractors and consultants, to review progress of construction, management, risk awareness of the \$1,3 Billion U.S. Dollar cable stayed bridge project.

Santiago Metro Lines 3 and 6, Santiago, Chile. As part of the Risk Management Program, visit the site to meet with the insured and contractors to review progress of construction, management and risk awareness on the complex metro project which includes contractors from multiple countries.

Rio de Janeiro Metro Line 4 Tunnels and Cable-stayed curved bridge. As part of the risk management program, reviewed technical aspects of the project tunnels and curved bridge, connecting Barra da Tijuca neighborhood in the West Zone, with Ipanema beach. The project management was critical to complete the project on time for the 2016 Summer Olympics.

Earthquake Damage Assessment, Mexicali, Mexico. Condition assessment of multiple buildings at the Mitsubishi Electronics complex including review of the structural systems, slabs on grade and foundations, following a 7.2 magnitude earthquake and subsequent aftershocks in April 2010.