



ORACLE
ENGINEERING

ANDRES F. LOPERA, P.E.

President

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2021-470

HIGHLIGHTS

Civil Engineering
Degree

Master of Science
Program

Professional Engineer

Structural Engineering
Design

Threshold and
Special Inspections

Property Condition
Assessments

OSHA 10 Hour
Certification

MSHA 24 Hour
Certification

NCEES Council
Record No. 44520

AWCI EIFS Inspector

Fluent - Spanish

PROFESSIONAL SUMMARY

Mr. Lopera is the President at ORACLE Engineering and Construction Services, Inc., with over 15 years of structural design experience, as well as 7 years of expert consultation services for construction defects and property claims. He earned a B.S. in Civil Engineering from the University of Florida and pursues a M.S. in Civil Engineering with a concentration in Structural and Geotechnical Engineering from the University of Central Florida. He is a licensed professional engineer.

Mr. Lopera has performed structural analysis and design for thousands of projects including churches, office buildings, amenity centers, multi-family buildings and custom ocean-front homes, as well as heavy industrial design at pulp/paper mills and chemical industrial plants. He has designed structures for high velocity hurricane zones (HVHZ); earthquake; and coastal wind exposure.

He has also provided expert consultation services for hundreds of property claims and construction defects of roofing, structural members, fenestrations, EIFS/stucco, foundations and retaining walls. With his extensive design knowledge, he investigates defects in design, quantity, material, installation and workmanship.

EDUCATION / SPECIAL TRAINING

- University of Florida, B.S. Civil Engineering, 2001
- University of Central Florida, M.S. Civil Engineering with concentration in Structural and Geotechnical Engineering (graduation 2018)
- Advanced Reinforced Concrete Design (Graduate Level)
- Advanced Steel Design (Graduate Level)
- Matrix Structural Analysis (Graduate Level)
- Dynamics of Structures (Graduate Level)
- Finite Element Analysis (Graduate Level)

■ STRUCTURAL
■ FORENSIC
■ CONSTRUCTION
■ GEOTECHNICAL
■ GEOPHYSICS
■ METALLURGY

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FL Cert. of Auth. No. 30597

- Advanced Structural Mechanics (Graduate Level)
- Advanced Geotechnical Engineering (Graduate Level)
- Association of the Wall and Ceiling Industry (AWCI) EIFS Inspector Certificate Course
- 2006 IBC Seismic Design Provisions
- Leak Detection for Roofs
- Building Pathology: Roofs
- IBC Chapter 17: Special Inspections and Testing
- Mid-Rise Shearwalls and Diaphragms

REGISTRATIONS / CERTIFICATIONS / MEMBERSHIPS

- Professional Engineer, State of Florida No. 70791
- OSHA 10 Hour Certification No. 002599578
- MSHA 24 Hour Certification No. 1219-0009
- NCEES Council Record No. 44520
- American Concrete Institute (ACI) Member No. 1248285
- AWCI Certified EIFS Inspector No. 1155814
- University of Central Florida: Structural Engineering Certificate
- Florida Structural Engineers Association, Member (North FL FSEA)
- National Council of Structural Engineers Association, Member (NCSEA)

RELEVANT EXPERIENCE

Property Claims and
Construction Defects

RELEVANT EXPERIENCE

- **Post-Tensioned Concrete Slab [Expert Consultant]**
Clearwater, FL – Expert consultant for the Owner on investigation into damaged tendons on multiple three-story apartment buildings with post-tensioned slabs.
- **Flood Damage [Expert Consultant]**
North Miami Beach, FL – Expert consultant for the Defendant in case of water damage to luxury high-rise condominium. After the Defendant severed a water pipe, the owners of the condo unit 4 levels below sought to recover \$360,000 in damages. We determined that a majority of the damages in the unit were pre-existing.
- **Pavement Cracks [Expert Consultant]**
Bradenton, FL – Expert consultant for the Defendant in CDD case against contractor for cracks in roadways within an 880 single-family and multifamily development. Evaluated civil engineering plans, actual construction and expert reports by others and determined cause and origin.
- **Pre-Cast Concrete Columns [Expert Consultant]**
Case No. 48-2008-CA-004463-O, Orange County, Florida
Mark Tremonti v. Ray Coudriet Builders, Inc. v. Precast Designs, Inc. et al



Expert consultant for the Defendant in case of alleged faulty manufacturing and installation of pre-cast concrete columns, balustrades, railings and trim. We also reviewed expert reports and determined that our client was not responsible for the alleged damages.

- **Pre-Cast Concrete Parking Garage [Expert Consultant]**
Expert consultant for the Defendant in construction defect case of alleged faulty installation of structural steel within pre-cast concrete parking garage. We reviewed expert reports, performed analysis of welded, bolted and slip-critical connections.
- **3-Story Wood Multi-Family [Expert Consultant and Designer]**
Expert consultant and Designer of cause/origin and repairs after an auto collided with a three story multi-family building. Performed analysis of damaged members, designed wood repairs and concrete slab repairs.
- **Masonry Wall Collapse [Expert Consultant]**
Expert consultant for the Defendant in construction defect case of collapse of 25 foot tall masonry wall during construction. Reviewed bracing, wall design, footing design and compared to field construction.
- **Soil Settlement on 7-story, \$30M Building [Expert Consultant]**
Expert consultant for the Defendant to determine whether a 7-story, \$30M building has settled due to an excavation within 10 feet of the building footprint. Analyzed MASW testing, GPR testing, soils reports and structural plans. Determined scope of repairs. Detailed cost estimate.
- **Excavations**
Washington D.C. – Cause and origin of foundation and wall separations reportedly caused by excavation work adjacent to Insured's property. Reviewed other Professional Engineer's reports, structural plans for building and excavation work. Also determined scope of repairs.
- **Fire**
Lake Worth, FL; Alpharetta, GA (< \$100k damage claims) – Damage evaluation and repair scope for fire damage of commercial and residential buildings. Determined whether buildings were repairable or total losses.

River Reach Apartment Complex: Orlando, FL (\$750k damage claim) – Expert Consultant for structural damage evaluation and repair scope for fire damage of 4 story residential apartment buildings.
- **Flood & Hydrostatic Water Pressure**
Avon by the Sea, NJ – Determined cause and origin of slab cracks at basement of structure following flooding from Tropical Storm Irene.
- **Hail and Wind**
Hail and wind damage assessment reports for P & C Insurance Carriers in Georgia, New Jersey, New York, Pennsylvania, Tennessee, Texas. Roof types included asphalt composition shingle, clay barrel tile and slate.
- **House Movers**

RELEVANT EXPERIENCE

Property Claims and
Construction Defects

(continued)



Frankfort, KY – Determined cause & origin of structural damage to single-family home after the home was relocated by a house moving company.

- **In-ground Pool/Spa Structural Failures**
Bordentown, NJ – Determined cause & origin of structural failure of in-ground pools and spas following a storm.
- **Marine Bulkhead**
Bradenton Beach, FL – Determined the structural deficiencies and developed a repair protocol for 75 lineal feet of bulkhead along Tampa Bay shoreline.
- **Moisture Intrusion**
Ft. Lauderdale, FL – Determined cause and origin of moisture intrusion at 25th level of high-rise luxury condominium.
- **Reactive Drywall (RDW)**
Coconut Creek, FL – Evaluated evidence to determine if reactive drywall was present within commercial and residential buildings. Destructive testing and lab analysis was required for investigation.
- **Sinkholes & Subsidence**
Sneads, Ocala; Gainesville, FL – Determined presence and extent of reported sinkhole activity for residential and manufactured housing. Evaluated damage and determined whether geotechnical testing and ground penetrating radar (GPR) testing would be justified.
- **Secondary Damage from Sinkhole Remediation**
Expert consultant for Defendant on damages reportedly caused by sinkhole remediation activities within proximity to the Insured.
- **Wind vs. Storm Surge vs. Wave Action**
Superstorm Sandy (2012), NJ and NY coast – Determined cause and origin for reported wind damage vs. storm surge vs. wave action on coastal high-end residential buildings. Several claimed damages were in excess of \$500,000.
- **Wood Destroying Organisms (WDO)**
Prepared expert reports to investigate the presence of wood destroying organisms and potential structural damage to residential properties. Claimed damages were in excess of \$100,000.

RELEVANT EXPERIENCE

Property Claims and
Construction Defects

(continued)

RELEVANT EXPERIENCE

[COMMERCIAL / MULTI-FAMILY]

Structural Engineering
Design

Various: Duval and St. Johns County, FL – Amenity centers constructed with reinforced masonry; cathedral ceiling designed with heavy timber.

Los Lagos: Jacksonville, FL – Structural engineering repair for substantial structural damages to multiple townhouse condo units from fire. Wood stud wall construction with conventionally framed floor system and wood trusses.



[COMMERCIAL / RELIGIOUS] Celebration Church: Yulee, FL – Structural design and construction administration for multi-million dollar church. Tilt-up concrete walls with steel bar joists.

[COMMERCIAL / RETAIL, OFFICE, RESTAURANT]

Old Time Pottery: Stuart, FL – Structural design and construction administration for \$1.9M renovation. Masonry wall construction with steel bar joists.

Rainbow Muffler: Jacksonville, FL – Structural design and construction administration for \$1,100,000 renovation/repair. Masonry wall construction with steel bar joists.

Ray's Pizza: Neptune Beach, FL – Structural design and construction administration for \$500,000 repair due to damages caused by fire. Masonry wall construction with metal plate connected wood trusses.

St. Vincent's Primary Care: Green Cove Springs, FL – Structural design of major one-story Addition to existing building.

Ginger's Place: Jacksonville Beach, FL – Structural design of repairs due to fire (<\$100k). 2-story building with CMU walls and steel bar joist floor system.

[HEAVY INDUSTRIAL / CHEMICAL] BASF: Attapulgus, GA – Mill-wide modifications to beams, columns and platforms constructed of steel and aluminum.

[HEAVY INDUSTRIAL / PULP & PAPER] Georgia-Pacific Cellulose: Brunswick, GA – \$5M Bleach Plant Demolition: New steel bents and deep foundations to structurally support beams, columns and walkways connected to bleach plant for future demolition of bleach plant.

[RESIDENTIAL / CUSTOM] Hammock Beach: St. Augustine, FL – Structural design, construction administration and threshold inspections on up to four-story, ocean front structures designed with reinforced masonry and timber (\$1M+ homes).

[RESIDENTIAL / TRACT-TYPE HOUSING] St. Johns Golf and Country Club: St. Johns County, FL – An 800-home community with up to 6,000 square foot homes designed using fifteen master plans with up to six elevations each (\$400K+ homes).

[RESIDENTIAL / REPAIRS] Over 200 structural repairs of residential buildings due to fire/water/wind damage; Repairs to damaged metal plate connected wood trusses.

[RESIDENTIAL / FOUNDATIONS]

Keystone Heights, FL – Foundation design for 1,000 square foot metal building.

Jacksonville, FL – Foundation design for 5,200 square foot metal building.

[COMMERCIAL / HOSPITALITY] Holiday Inn Express: Jacksonville Beach, FL – Shoring and re-shoring inspections on concrete slabs of four-story hotel.

RELEVANT EXPERIENCE

Structural Engineering Design

(continued)

RELEVANT EXPERIENCE

Threshold and Special Inspections



[COMMERCIAL / CONDOMINIUM] Old San Jose on the River: Jacksonville, FL – Shoring and re-shoring inspections on concrete slabs of five-story condominium on the St. Johns River.

[RESIDENTIAL / CUSTOM] Hammock Beach: St. Augustine, FL – Threshold inspections at each phase of construction on luxury four-story, ocean front residences.

RELEVANT EXPERIENCE

Property Condition
Assessments

[INDUSTRIAL / DISTRIBUTION CENTER] Lakeland, FL – Level 1 assessment of 100,000 square foot warehouse/distribution center with concrete tilt-wall construction and EPDM roofing membrane.

[INDUSTRIAL] Tampa, FL – Level 1 assessment of 100,000 square foot front-load industrial building with concrete tilt-wall construction and standing seam metal roof panels.

[INDUSTRIAL] Tampa, FL – Level 1 assessment of 76,000 square foot back-load industrial building with concrete tilt-wall construction and asphalt based roll roofing.

