



HALLIWELL

DONALD LEFFERT, PE

DIRECTOR, SUBJECT MATTER EXPERT
CIVIL/STRUCTURAL ENGINEERING SERVICES
PROVIDENCE, RI

don.leffert@halliwellglobal.com

+1 508 431 3785 | Mobile

+1 877 411 2177 | Office

halliwellglobal.com

SPECIALTIES

- Storm Surge/Flood Inundation Analysis
- Drainage Assessments
- Construction Defect Investigations
- Building Envelope Investigations, Analyses and Recommendations
- Preparation of Cause and Origin Damage Assessments
- Structural Analysis and Design
- Windstorm/Storm Surge Damage
- Expert Geotechnical Investigations
- Structural Investigations and Analyses
- Structural Building Systems - Steel/Reinforced, Post-Tension/Prestress Concrete/Masonry/Timber
- Remedial Design and Reconstruction Scope Development
- Deep Foundation Design
- Moisture Intrusion Engineering
- Marine Bulkhead/Dock Design
- Fire Damage Evaluation
- Structural Forensic Investigations
- Building Code Reviews and Analysis
- Construction Document Peer Review and Analysis
- High-Rise Structures
- Educational Structures (Universities and Public Schools)
- Retail, Industrial, High-end Residential Structures
- Wind Turbine Analysis
- Cell Towers Analysis and Design

BIOGRAPHY

Donald Leffert brings more than 30 years of design and analysis experience for various types of buildings, bridges, and coastal structures. He specializes in structural systems including steel, reinforced concrete, pre-stress and post-tension concrete, wood, and masonry. His experience includes responsibility for maintaining schedule, budget, and client relationships for multiple projects and managing the administration staff, employees, subcontractors, and office operations. He has provided construction administration, field observations, and review of shop drawings for various types of projects and has prepared quality control manuals for use in all departments of the company.

He is an expert at preparing structural assessment reports of existing commercial and industrial structures for use by owners in the private and public sectors, insurance underwriters, attorneys, and realtors.

QUALIFICATIONS

Bachelor of Science, Civil Engineering – cum laude, Union College, Schenectady, New York

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INDUSTRY CERTIFICATIONS, LICENSES AND MEMBERSHIPS

Licensed Professional Engineer (Structural) – AL, AR, CO, CT, DE, FL, GA, IN, KS, KY, LA, MA, ME, MD, MI, MN, MS, MO, ND, NH, NJ, NY, NC, OH, OK, PA, RI, SC, TN, TX, VA, VT, WV, WASH-DC, WI, USVI

PROFESSIONAL EXPERIENCE

- Halliwell, Director/Subject Matter Expert, Civil/Structural Engineering Services
- Steere Engineering Inc., Department Manager
- Structural Wood Systems, Inc., Director of Engineering
- Northeast Engineers Consultants, Chief Structural Engineer
- Tectonic Engineering Consultants, P.C. Senior Structural Engineer
- Asfour Associates, Senior Structural Engineer
- Volta, Project Engineer
- Anderson Structural Engineering, Structural Engineer
- Stone and Webster Engineering Corp., Structural Engineer

REPRESENTATIVE ASSIGNMENTS

Forensic Studies

Earle Street Apartments | Clemson, SC

Performed a forensic investigation on the uneven floor conditions of a newly constructed 7-story apartment building. The structural assessment revealed design defects in the bearing requirements for the columns and beams, and failure to account for creep effects in the concrete. In addition, the assessment discovered construction defects with the improper compaction of fill materials.

Sunseeker Resort | Port Charlotte, FL

Prepared a structural assessment of damage to 8-story post-tension concrete structure as the result of collapses from two tower cranes during Hurricane Ian. Provided recommendations of the required shoring and the necessary repairs to the post-tension concrete system.

Richard's Clearview Mall | Metairie, LA

Investigated the cause and origin of damage conditions to the building's envelope and structural systems as the result of impact from Hurricane Ida. Performed an uplift investigation of the PVC and Modified Bituminous roofing membranes.

Bluebeard's Castle Resort | Saint Thomas, USVI

Investigate the cause and origin of damage conditions to the fenestrations, roofing systems, exterior envelopes and structural systems for multiple buildings within the resort as the result of Hurricanes Irma and Maria. The investigation separated the damage associated from each of the Hurricanes.

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225 Allens Avenue | Providence, RI

Performed a forensic study on existing damage and prepared a structural assessment of the entire building. The report was used in the negotiations for a long-term lease between the existing tenant and landlord.

Landings at South Park | Fall River, MA

Prepared a structural assessment report and provided expert testimony on the potential failure of an existing 14' high retaining wall, which was adjacent to a three-story building.

Structural Design

Oceaneering Plant | Panama City, FL

Prepared all structural construction documents for the reconstruction of 5,500 sf of the production plant that was damaged as the result of Hurricane Michael. The design accommodated two gantry cranes with a capacity of 20 tons. Lateral resistance system consisted of moment resisting frames that matched the existing structural systems for the plant. Project included expansion of the existing loading dock and increase in size of the overhead doors.

Butterfield Dining Hall Addition, University of Rhode Island | Kingston, RI

Project Manager for the design of a +5,900-SF addition to an existing dining hall with Vision 3 Architects. Addition encompassed multi-level roofs, green roofs, roof-supported exterior paved walkways, a second level student lounge, and large expanses of glass walls. Addition connected to existing structural systems for the adjoining dining structure and dormitory building. Project included expansion of the existing loading dock with a free-standing, brick-clad enclosure wall with overhead doors.

Potter League Animal Hospital | Middletown, RI

Provided all structural calculations, schematics, and design for a new 16,850 sf LEED-certified multi-level steel framed hospital with operating rooms, care facilities, training rooms, atriums, and offices. Lateral resistance system consisted of chevron braces. Flat sections of the roof were designed to accommodate vegetated plantings. Several exterior sections of the building had three story atrium glass walls. Provided all phases of construction administration services.

Marine Science Laboratory Addition, Roger Williams University | Bristol, RI

Provided all structural calculations, schematics, and design for an 8,000-sf addition to the existing marine science laboratory. Due to deep excavations, soil nailing was employed for underpinning the existing foundation. Steel moment resistant frames were used for the lateral resistance system and their stiffness adjusted to be compatible with the existing structure. The roof was designed for vegetated plantings and entire structure was designed to accommodate future classroom floors. Provided all phases of construction administration services.

Headquarters for Failure Analysis & Prevention, Inc. | North Kingstown, RI

Project involved construction of a two-story 16,000 square foot steel structure for offices and testing areas that required clear story bays within the building. Performed structural analysis and design,

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provided construction administration, field observations, and review of shop drawings.

Stevens Street Medical Building | Taunton, MA

Provided structural analysis and design for the two-story 8,000 sf steel frame building. Lateral resisting system consisted of diagonal braces. Provided construction administration, reviewed structural shop drawings, and conducted site visits during construction to ensure compliance with design.

Beverly Public Library | Beverly, MA

Project involved construction of a four-story, moment-resistant, steel building utilizing composite floor construction. Performed structural analysis and design, provided construction administration, field observations, and review of shop drawings.

Olin Language Center, Tufts University | Medford, MA

Project involved construction of a seven-story, interior core diagonal braced steel building. Performed structural analysis and design, provided construction administration, field observations, review of shop drawings.

United States Postal Facility | Hopkinton, MA

Project involved construction of a one-story, 15,000 square foot steel structure. Performed structural analysis and design, provided construction administration, field observations, and review of shop drawings.

Atlantic Hill Condominiums V | Hull, MA

This project involved construction of a seven-story steel building with a four-story concrete parking garage consisting of lateral loads resisted by steel and concrete frames. Performed structural analysis and design, provided construction administration, field observations, and review of shop drawings.

Georgian Underground Parking Garage | Lake George, NY

This project involved construction of an underground concrete parking structure of cast-in-place slabs, joists, girders, and columns. Performed structural analysis and design, provided construction administration, field observations, and review of shop drawings.

Wastewater Treatment Plant | Manchester, NH

Project involved an addition to the existing treatment plant for an increase in capacity. Performed the structural analysis and design for the Primary Sediment Concrete Tank, Secondary Settling Concrete Tank and Aeration Steel Building (as sub consultant to CDM).

Retail

Walgreens Drug Stores | New England and Mid-Atlantic Regions

Project involved construction of one- and two-story retail facilities utilizing bar joist, girders, composite steel beams, wood trusses, and masonry walls. Performed structural analysis and design, provided construction administration, field observations, and review of shop drawings.

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McDonald's Prototype Restaurants | New England Region

Project involved construction of a one-story structure utilizing steel bar joists, steel beams, and masonry shear walls. Performed structural analysis and design, provided construction administration, field observations, and review of shop drawings.

Red Lobster Restaurant | Tulsa, OK

This project involved construction of a one-story steel structure supported by a post-tensioned slab system on grade. Performed structural analysis and design, provided construction administration, field observations, and review of shop drawings.

Village West Shopping Center | Plymouth, MA

Project involved construction of an 80,000 square foot shopping center utilizing bar joists, girders, composite steel beams, wood trusses, and masonry walls. Performed structural analysis and design, provided construction administration, field observations, and review of shop drawings.

Residential

Residence, Ocean Lawn Lane | Newport, RI

Structural design includes roof framing, first and second floor framing, bearing walls, foundation, and conducted lateral wind analysis of the structure. The estate included a three-bay garage for 6500 sq ft boat house with 14-foot ceilings and living space above, an elevator and several enclosed porch areas.

Residence, Ocean Avenue | Marblehead, MA

Structural design includes roof framing, first, second and third floor framing, bearing walls, foundation, and conducted lateral wind analysis of the structure. Residence has a 270-degree view of the ocean, which required unique interior shear walls. It has full height basement under the main section of the building, a three-bay garage with living space above, an elevator and several enclosed porch areas.

Residence, Poppasquash Road | Bristol, RI

Structural design includes roof framing, first and second floor framing, bearing walls, foundation, and conducted lateral wind analysis of the structure. Residence has full height basement under the main section of the building, a three-bay garage with living space above, an elevator and several enclosed porch areas.

Bridges

Weyerhaeuser Bridge | Portsmouth, RI

Conducted bridge type study, structural design and calculations for a 44-foot single span bridge utilizing prestress box beams. Design included bridge abutments, support of utilities and guardrail design.

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Nashawtuc Bridge | Concord, MA

Structural design and construction documentation to provide the necessary upgrades and repair to the historic stone arch bridge. Services included oversight of the construction work to ensure compliance with design and specifications, daily construction reports, approval of the project at its completion, and provided as-built drawings.

Capella Street Bridge, Goat Island | Newport, RI

Provided structural inspections and existing condition report of the existing bridge. Prepared structural calculations, design, and construction drawings for the replacement of the 70-foot-long bridge.

Route 2 over 2A Bridge | Phillipston, MA

Conducted bridge type study, structural design, and calculations for a three-span 150-foot-long bridge for Massachusetts Highway Department utilizing steel girders. Design included bridge abutment and guardrail design. Coordinated the geotechnical services.

Fisher Street Proposed Bridge over Three Mile River | Taunton, MA

Conducted bridge type study, structural design, and calculations for a 75-foot single span bridge for Massachusetts Highway Department utilizing prestress box beams. Design included bridge abutment, support of utilities and guardrail design.

Wind Turbines

100kW Wind Turbine | New England Region

Provided structural analysis for the wind turbine's 120-foot steel mast and its corresponding foundation design. The foundation designs included either drilled piers or octagonal shaped spread footings. Coordinated and directed all efforts of the geotechnical investigations for each site.

Telecommunications/ High Voltage Transmission Towers

Structural Assessments/Inspections of Towers | Wireless Communication Companies

Provided the structural assessments and inspections and prepared the structural analysis of the steel monopole and lattice towers to support antennas and cables subjected to wind and ice loads.

Structural Assessments/Inspections | High Voltage Towers

Provided structural assessments, inspections, and structural analysis for the steel taper monopoles to support high voltage transmission lines and new telecommunication antennas subject to wind and ice loads through Connecticut, Massachusetts, and Virginia.

Waterfront/Marine

Stock Island Yacht Club Marina | Key West, FL

Performed a forensic study on damage to concrete floats, pedestrian gangways, and anchor piles as the result of Hurricane Irma. The marina contains 500 slips with a main floating concrete dock with multiple finger floats. In addition, performed assessment of fender piles and boat ramps.

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Newport Naval Station | Newport, RI

Project involved construction of a 510 foot long by eight-foot-wide main floating concrete dock that was laterally supported by greenheart timber anchor piles. The Marina Administration building was located above the floats and supported on piles. Performed structural analysis and design of the floats, piles, and administration building. Provided construction administration, field observations and review of shop drawings.

Hyatt Regency Loading Dock | Newport, RI

Project involved the construction of a new steel sheet bulkhead with interior whalers which were supported by anchor (pipe) piles. Performed structural analysis and design, provided construction administration, field observations, and review of shop drawings.

Carnegie Abbey Marina | Portsmouth, RI

Project involved a new 41-slip in-land marina, first in RI. Project required the construction of a new steel sheet bulkhead with interior whalers which were supported by either anchor (pipe) piles or concrete deadman. Performed structural analysis and design, provided construction administration, field observations, and review of shop drawings.