CHRISTOPHER S. DOWNEY, P.E.

DIRECTOR OF ENGINEERING

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EDUCATION

BS, Civil Engineering (Structural), Rensselaer Polytechnic Institute, 1996

MS, Civil Engineering (Structural), Rensselaer Polytechnic Institute, 1998

ACCREDITATIONS

Professional Engineer:

MA, NV (CE/SE), TX, CA (CE), FL, NH, IL (SE), NC, TN, CT, WA (CE), NY, DE, NJ, MI, PA, ME, SC, MD

CERTIFICATIONS

OSHA 10-Hour Construction Safety and Health

Mr. Downey has been with Aperture (formerly CCA) since 2024 and has extensive experience in civil, structural, and construction engineering.

Prior to joining Aperture, he spent over 25 years as a structural engineer in the design and construction of building structures, utilizing all types of construction materials, including traditional steel-framed, cast-in-place concrete, precast/prestressed concrete, post-tensioned concrete, masonry, wood-framed, and various foundation types.

Mr. Downey's design and construction experience includes a wide range of project types, including commercial and residential buildings, airport terminals, medical and educational institutions, high-capacity parking facilities, and the renovation of existing structures. He has been involved in the delivery of a multitude of projects as part of true design-build partnerships.

In addition to the design of building structures, Mr. Downey has provided extensive construction engineering support services for erectors, steel fabricators, concrete precasters, and general contractors. Some examples include temporary shoring of trusses and long-span plate girders during erection, evaluation of structures to support construction loading and vehicles, foundation design for tower cranes, temporary bridge structures, and evaluation of the stability of partially erected structures during construction.

Since joining Aperture, in addition to providing engineering support for design projects, Mr. Downey has primarily focused on construction defect claims, design professional liability claims, evaluation of building envelopes and facades, property and structural condition assessments, insurance claims, and litigation support.

Throughout his career, Mr. Downey has consistently built strong client relationships based on responsiveness, integrity, and a practical, common-sense approach. He is known for his ability to effectively communicate complex technical issues and deliver innovative, value-driven solutions.

WORK EXPERIENCE

Aperture Consultants CCA, LLC (formerly CCA Construction Consultants, LLC), Burlington, MA, May 2024 – Present, Director of Engineering

Simon Design Engineering, LLC, Wellesley, MA, September 2004 – May 2024
Senior Engineer

Hybrid Parking Solutions, Inc., Watertown, MA, October 2001 – September 2004
Project Manager

Zaldastani Associates, Inc., Boston, MA, April 1998 – October 2001
Project Engineer

The Whiting-Turner Contracting Co., Burlington, MA, May 1997– Aug 1997
Engineering Intern

Lake HVAC, Stoneham, MA, May 1996 – Aug 1996
Engineering Intern

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Last revised: June 5, 2026

REPRESENTATIVE PROJECT EXPERIENCE – PARTIAL LISTING

Structural Design Projects:

Dana-Farber Cancer Institute, Yawkey Center for Cancer Care, Boston, MA
Lead structural engineer and project manager for $350 million, 500,000 SF, 22-story laboratory and research building with seven stories of below-grade parking.

Agnes Scott College, Mary Brown Bullock Science Center, Decatur, GA
Project manager and structural engineer for cast-in-place concrete science building utilizing concrete moment frames to allow flexibility to re-configure the interior space.

University Square Parking Garage, University Heights, OH
Project manager for this 4,000-space parking structure utilizing a hybrid structural system consisting of steel moment frames and precast, prestressed double-tee floor decks.

Christina Landing Parking Garage, Wilmington, DE
Project manager for 8-story parking structure which was built to accommodate an adjacent 22-story residential building and included a rooftop community pool and deck.

Dana-Farber Cancer Center, Façade Inspections, Boston, MA
Performed façade inspections every five (5) years for the entire Dana-Farber campus in accordance with the City of Boston Façade Ordinance.

10 Wyman Street Lofts, Jamaica Plain, MA
Structural engineer for this project to convert a historic brick schoolhouse into condominiums.

Logan International Airport, Terminal B Renovation and Expansion, Boston, MA
Project manager for the Terminal B airport expansion, which included substantial renovations and seismic upgrades, bringing the lateral-load-resisting system up to current building code standards.

Logan International Airport, Terminal E Modernization, Boston, MA
Engineer-of-Record for the renovations of the existing international terminal at Logan Airport as part of an $800 million modernization project.

EF Education First, North American Headquarters, Cambridge, MA
Project manager for 12-story, 300,000-square foot building, which included a 12-story architectural glass “waterfall” consisting of a complex three-dimensional steel pipe space frame truss.

Brigham & Women’s Hospital, Helipad Crash Deck, Boston, MA
Structural engineer for the design of a unique cable and netting system designed to protect the existing newborn intensive care unit (NICU) from steel members that might accidentally drop during the erection of the nearby helipad, allowing the NICU to remain in continuous operation during construction.

Oak Row Apartments, West Roxbury, MA
Engineer-of-Record for podium building, which consisted of one level of steel-framed parking with four (4) stories of traditional wood-framed construction above.

Edward Early Jr. Parking Facility, Lowell, MA
Led the design and detailing of both the architectural and structural components of this total precast concrete parking garage, including drafting of the precast shop drawings.

Winooski Hotel, Winooski, VT
Project manager and structural engineer for new hotel which consisted of precast hollow-core planks on proprietary steel D-Beams, also known as The Girder-Slab System.

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Construction Defect Claims Representing Defendant:

Iovanna v. S&S Construction, Marblehead, MA
Single-family home claims against General Contractor.

Tower 155 Condos v. 155 East Boca, Boca Raton, FL
Post-tensioned concrete installation claims involving 12-story 128-unit residential tower.

Avila and Bailey v. John Cannon Homes, xxxxxx, FL
Single-family home claims against General Contractor.

Bradley Title v. Karam Brothers, Pompano Beach, FL
Single-family home claims against General Contractor.

Ozona Village v. Phoenix Construction, Palm Harbor, FL
Stucco and siding installation claims involving 13 residential duplexes.

Waterleigh Phase 2 v. Quality Lathe & Stucco, Winter Garden, FL
Townhome community stucco claims involving 41 buildings and 196 units.

Bexley Townhome Community v. Spazz Stucco, Land O'Lakes, FL
Stucco and siding installation claims involving 32 buildings and 98 units.

Bexley Townhome Community v Phoenix Construction, Land O'Lakes, FL
Stucco and siding installation claims involving 2 buildings and 10 units.

Woodside Trace v. Phoenix Construction, Wesley Chapel, FL
Townhome community stucco installation claims involving 7 buildings and 52 units.

Westshore Marina v. Phoenix Construction, Tampa, FL
Stucco and siding installation claims involving 5 townhome buildings and 35 units.

Elm Ridge v. Phoenix Construction, Riverview, FL
Townhome community stucco installation claims involving 23 buildings and 10 units.

Epperson North v. Phoenix Construction, Wesley Chapel, FL
Townhome community stucco installation claims involving 41 buildings and 214 units.

SMC Jax v. Live Oak v. Roof Depot, Jacksonville, FL
TPO roofing and siding installation claims involving two large 4-story wood-framed apartment buildings with 486 total units.

Pulte v. Azteka d/b/a Atlantic Roofing, Kissimmee, FL
Asphalt shingle roofing installation claims involving 7 buildings and 52 units.

The Colonies Condos v. Valcourt, Winter Park, FL
Wood deck installation and waterproofing claims involving 55 unit balconies.

Konanec v. Millerick, Sherborne, MA
Single-family home claims against General Contractor.

Solterra Resort Homeowners v. Pulte, Davenport, FL
Townhome community stucco installation claims involving 22 buildings and 160 units.

Antonucci v. Rosewood Homes, Rockledge, FL
Single-family tile roofing and venting claims.

Ventanas I at Tiburon v. Valcourt, Naples, FL
Plaza and planter waterproofing and expansion joint claims.

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Terrace I at Lakewood v. Liske Enterprise, Lakewood Ranch, FL
Window installation claims involving two 4-story 30-unit buildings.

Westside Murano v. DR Horton, Kissimmee, FL
Asphalt shingle roofing installation claims involving 29 buildings and 158 units.

Sylvan Crossing v. Spazz Stucco, Lutz, FL
Stucco installation claims involving 30 buildings and 168 units.

Plymouth Harbor v. Valcourt, Sarasota, FL
Plaza waterproofing installation claims.

Blu Condos v. Coquina Isle, Fort Walton Beach, FL
Post-tensioned concrete installation claims involving 8-story 42-unit residential building.

DeLee v. Dream Finders Homes, Middleburg, FL
Single-family home stucco installation claims.

Royal Grand Condos v. Cherry Roofing, Davie, FL
Tile and TPO roofing installation claims involving 20 inter-connected buildings and 208 units.

Gentry and Krueger v Majic Mike's Door and Windows, Jacksonville, FL
Single family home window installation claims.

Property and/or Structural Condition Assessments:

New Bridge Medical Center Tunnel Survey, Paramus, NY
Preliminary structural assessment of existing steam and access tunnels, involving approximately 3,500 feet of tunnels that inter-connect the campus buildings.

Eldorado Condominium Garage, Worcester, MA
Structural investigation regarding observed distress in CMU walls of existing stand-alone parking garage.

City Point Residences, South Boston, MA
Property condition assessment (PCA) and report for newly constructed residential condominiums.

Atlantica Condominiums Parking Garage Leaks, Revere, MA
Investigation into on-going leaks into a below-grade parking garage located beneath a multi-story residential apartment building.

Flintlock Village Condominiums, Wells, ME
Structural inspections of wood-framing in residential crawl spaces.

FMC Rink Roof Inspections, Various Locations
Structural inspections of existing wood-framed roof trusses at various skating rinks.

Harborside Condominiums, Scituate, MA
Evaluation of observed settlement of pavement and retaining wall.

144-146 Chester Avenue, Chelsea, MA
Assessment of existing 40-foot tall retaining wall on residential lot.

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Litigation Support:

Voss v. Mobile Fencing, Somerville, MA
Personal injury case involving temporary construction fencing.

Express 7 Coin Laundry v. 6303 Miramar, Miramar, FL
Case involving damages due to alleged negligent replacement of existing roofs.

Rivera v. Holyoke High Street, Holyoke, MA
On-going case involving alleged damage to a neighboring property during demolition.

Toll v. Tocci, East Brunswick, NJ
Case involving the standard of care of the geotechnical engineer.

Braewell Condominiums Parking Garage, Quincy, MA
On-going case regarding design and construction defects involving renovations to an existing single-story parking deck.

Trio Enterprises v. James O'Toole, Somerville, MA
Retaining wall dispute between neighboring property owners.

Cacciola v. Gobel, Watertown, MA
Retaining wall dispute between neighboring property owners.

Pimental v. Peal, Lakeville, MA
Real estate purchase dispute involving an existing failing septic tank.

Needham Residential v. Dellbrook, Needham, MA
Case involving the standard of care of the General Contractor.

Hamill v. Dickson and Thorpe, New York, NY
Neighbor dispute regarding existing rooftop HVAC units.

Mallard Square v. Ted-Co, Somerville, MA
Case involving contractor's alleged failure to perform and their improper termination.

39 Harwood Porch Collapse, Dorchester, MA
On-going personal injury case involving the collapse of a third-story residential porch.

Insurance Claims:

Rumble Gym, Somerville, MA
Investigation regarding the collapse of a drop ceiling grid system.

70-64 Sea Street, Weymouth, MA
Evaluation of damage to building structure and storefront due to vehicular accident.

1676 Route 9, Stoddard, NH
Evaluation of water damaged wood flooring and repairs.

Jenni Carlson v USAA, Leicester, MA
On-going case involving alleged flood damage to a single-family residence.

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Construction Scope Evaluation:

6D Jacqueline Road, Waltham, MA
Evaluation of proposed scope and cost for replacement of an existing retaining wall.

Neighbor Access Agreements and/or Review of Support of Excavation (SOE):

650 and 651 Southern Boulevard, New York, NY
Review of access agreement and SOE for construction on neighboring property.

Central Park North, New York, NY
Review of access agreement and SOE for construction on neighboring property.

264-272 and 276 W 135th Street, New York, NY
Review of access agreement and SOE for construction on neighboring property.

Design Professional Standard of Care and Liability Claims:

BGNYAVE v. Advanced American Engineering, Huntington Station, NY
Review and assessment of structural engineer's standard of care.

NY Marine v. Titan Engineers, New York, NY
Review and assessment of support of excavation (SOE) design and standard of care.

Merrimack v. JZN Engineering PC, New York, NY
Review and assessment of support of excavation (SOE) design and standard of care.

PUBLICATIONS

O'Rourke, M., and Downey, C. "Rain-on-Snow Surcharge for Roof Design." Journal of Structural Engineering, Vol. 127, No. 1, 2001, pp. 74-79.

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