

Elias Eracleous

BE (Civil)(Hons), MIEAust, CPEng, NER
Registered Professional Engineer (PE0002203)

Forensic Engineer (Civil & Structural)

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Professional Summary:

Elias Eracleous is a suitably qualified and experienced Civil & Structural Engineer, with a background in civil & structural design and construction of a variety of development projects. He has considerable experience in building investigations, forensic engineering investigations, building movement-related assessment; protection work assessment, structural condition assessment, and expert witness work for legal proceedings.

Elias is a Chartered Professional Engineer [CPEng] and member of Engineers Australia [MIEAust]; Registered on the National Engineers Register [NER]; is a Registered Professional Engineer [PE] with the Business Licensing Authority [BLA]; and maintains membership in numerous professional and technical societies.

Qualifications, Registrations and Memberships:

- Bachelor of Engineering: BE (Civil) (Honours), University of Melbourne (2000-2003)
- Member, Institute of Engineers Australia [MIEAust]
- Chartered Professional Engineer [CPEng] with Engineers Australia
- Registered, National Engineers Register [NER]
- Member, Structural and Civil Colleges of Engineers Australia
- Member, Forensic Engineering Society of Australia [FESA]
- Member, Building Dispute Practitioners' Society [BDPS]
- Member, Association of Consulting Structural Engineers Victoria [ACSEV]

Design Engineer Experience:

Structural and Civil Engineering design & documentation and subsequent construction phase support services for a variety of residential, commercial, industrial and institutional building structures, located throughout Victoria and Australia. Some notable design/construction projects include the following:

- Extensive architecturally driven residential projects throughout Victoria
- Sunshine Hospital - Radiotherapy Services Building, Sunshine
- Deakin University Regional Community Health Hub, Warrn Ponds
- Barwon Health - Teaching, Training & Research Facility, Geelong
- Albury Wodonga Health - Regional Cancer Centre & PET, Albury
- Kolbe College - Science & Multipurpose Building, Greenvale
- Plenty Valley Community Health - South Morang Super Clinic, South Morang
- Dianella Health - Hume GP Super Clinic, Broadmeadows
- Mitchell Health - Wallan GP Super Clinic, Wallan
- Kardinia Health - GP Super Clinic, Geelong
- Barwon Health - Community Rehabilitation Centre, Geelong

- Digital Harbour Plant Extension, Docklands
- Minifie Park Child Care Centre, Balwyn
- Kathleen Syme Centre Library, Carlton
- Belconnen Arts & Cultural Centre, ACT
- Melbourne University Boat Club, Melbourne

Forensic Engineer Experience:

Engineering Investigations and Reporting pertaining to Structural & Civil Engineering matters, including the following:

- Foundation/footing movement and associated building damage
- Protection work assessment related to neighbouring building work
- Failure/collapse of retaining wall structures
- Failure of site earthwork excavations and site retention systems
- Leaking buildings, including roofs, underground basements and external balconies
- Surface stormwater drainage systems
- Deterioration of reinforced concrete buildings ('concrete cancer')
- Building damage associated with 'sudden' events (e.g. fire, flood, wind, storm, seismic, vehicle, etc)
- Tree root drying/suction effects on building footings within reactive/expansive foundations
- Structurally overloaded, excessively deflected and cracked concrete floor structures
- Preparation of design drawings and specifications for rectification work
- Expert investigations and expert engineering advice/opinion reports
- Participation in expert conclaves and joint reporting
- Participation in legal proceedings as expert witness at BAB, VCAT, and County Court (Victoria)

Professional Experience:

Design Action Consulting Engineers (Aug 2003 – Sep 2007):

Graduate Engineer (Civil & Structural)

Structural and civil design/documentation of small to medium sized high end residential and commercial building projects. Also involved in engineering investigation and reporting of residential buildings undergoing structural distress.

Irwinconsult - WSP (Sep 2007 – Apr 2013):

Design Engineer / Project Engineer / Senior Engineer (Structural)

Structural design/documentation and construction supervision of medium to large sized building projects. Also involved in engineering investigation and reporting of commercial buildings undergoing structural distress.

FMG Engineering (Apr 2013 – Feb 2019):

Senior Forensic Engineer

Forensic engineering investigations and reporting of buildings and structures for property owners and managers, owners corporations, lawyers, insurers, loss adjusters, public and government institutions.

EE Forensic Engineers (Feb 2019 – Current):

Senior Forensic Engineer

Building investigations, forensic engineering investigations, building movement-related assessment; protection work assessment, structural condition assessment, and expert witness work for legal proceedings.

Professional Development Activities:

As a Chartered Professional Engineer, Elias maintains a high level of professional development activities, which exceeds the minimum required by Engineers Australia of 150hrs in any 3-year period. Below is a list of some notable courses, workshops and/or seminars which have been undertaken to maintain this high level of professional development:

- Urban Search and Rescue (USAR) Engineer (level 1 & 2) Training Course, MFB, 2006 & 2007
- Red Card Construction Site Training Course, Master Builders Association (MBA), March 2008
- Pre-stressed Concrete Design Course, Cement & Concrete Services (CCS), April 2008
- Reinforced Concrete Design Course, CCS, August 2008
- Durability in Structures Seminar, Concrete Institute of Australia (CIA), March 2009
- Precast for Structural Engineers Seminar, Precast Association, May 2009
- Earthquake Design (John Wilson) Seminar, CIA, June 2009
- Dead, Live and Earthquake Loading Course, CCS, October 2009
- Forensic Engineering Seminar, Engineers Australia (EA), May 2010
- Timber Structures Seminar, EA, June 2010
- Concrete Serviceability Seminar, CIA, July 2010
- Floor Vibrations Design Seminar, CIA, February 2011
- Marine Structures Presentation, J-Steel, March 2011
- AS2870-2011 Design Workshop, Foundations & Footings Society of Victoria (FFSV), May 2011
- Composite Timber Floor and Box Beam Design Workshop, Irwinconsult, May 2012
- Concrete Repair & Corrosion Seminar, Australian Concrete Repair Association (ACRA), July 2012
- Precast Concrete Design & Erection Seminar, CIA, September 2012
- AS2870-2011 - Design & Construction Course, CCS, April 2013
- King Street Bridge Collapse Presentation, EA, July 2013
- Working from Heights & Confined Spaces Training Course, Fire & Safety Australia, October 2013
- Expert Witness Training (Hugh Selby), Unisearch, November 2013
- Protection Work Presentation, Building Dispute Practitioner's Society (BDPS), March 2014
- Shallow Footing and Pile Footing Design Workshop (John Goldfinch), FMG Engineering, March 2014
- Asbestos Awareness Training Course, Alert Force, May 2014
- Waffle Pod Raft Slab Design Presentations, ASBC and HEDRA, March 2015
- Wind Design Course (John Holmes), Technical Engineering Services (TES), May 2015
- Retaining Wall Failures Presentation (Chris Haberfield), IStructE, November 2015
- Geotechnical Engineering Workshop, TES, November 2015
- Treescapes, Buildings and Engineering Seminar, HEDRA, June 2017
- Forensic Engineering Course, Engineering Training Institute Australia, ETIA, August 2017
- Vibration and Structural Assessment of Buildings, STRAAM Group, August 2017
- Masonry Rectification Work Presentation, Helifix Australia, September 2017
- VBA Inspector Training Course, Victorian Building Authority (VBA), February 2018
- Large Scale Retaining Wall Structures Seminar, EA, June 2018
- Expert Evidence and the Best Briefing Process Webinar, November 2018
- Destructive Testing of Timber Utility Poles, Energy Safe Victoria, March 2019
- NCC 2019 Workshop, Victorian Building Authority (VBA), May 2019
- Participation in Expert Conclave and Joint Report, November 2019
- Research and Development of improved footing systems for reactive soils, January-April 2020
- Cracking in Concrete Design Workshop, Engineering Training Institute Australia, ETIA, July 2020

- When Trees are a Nuisance: 'Livingstone v City of Melbourne', FESA, March 2021
- Hydraulic Engineering Design Workshop, Engineering Training Institute Australia, ETIA, May 2021
- Dam Failures (case studies) Seminar, FESA, May 2021
- Executive Summaries in Expert Reports Webinar, Experts Direct, February 2022
- Surface Drainage - Roads & Shared Spaces Webinar, EA, March 2022
- Concrete, Steel and Masonry Repair and Protection Course, ETIA, July 2022
- Participation in Expert Conclave and Joint Report, September 2022
- National Construction Code 2022 - Vol 1 & 2 Webinar, VBA, October 2022
- Engineering Failure Analysis as a Forensic Problem-Solving Tool, FESA, May 2023
- Effective Expert Evidence (Tim Sowden) Presentation, FESA, June 2023
- Below-Ground Waterproofing (Karl Wooton) Presentation, FESA, August 2023
- Proactive Inspections Program and Common Non-compliances, VBA, September 2023
- Blast, Fire & Progressive Collapse Workshop, ETIA, December 2023
- Plumbing - Common Plumbing Enquiries, VBA, May 2024
- Fast and Simple Bridge Design Process per AS5100, EA, June 2024
- AI - An Essential Tool for Expert Inquiry, FESA, July 2024
- Weathering steel girders: Fitzroy bridge benefits, EA, May 2025
- Effects of induced ground vibrations on heritage buildings, EA, May 2025
- Legal processes for Forensic Engineering Cases, FESA, June 2025
- Modular block retaining wall, design and build, EA, Jun 2025

