

Resumé of Patrick Irwin

Summary		
• Structural and civil engineering expert. • Specialist in the forensic investigation of building issues. • Over 40 years experience in engineering investigation, design and construction. • Extensive experience as an expert witness.		
Key Details		
Name	William "Patrick" Beresford Irwin	
Occupation	Forensic Structural Engineer	
Current Positions	Director Irwin Structures Pty Ltd Secretary Forensic Engineering Society of Aust Member Building Appeals Board Director IFT Holdings Pty Ltd (private company)	
Tertiary Qualification	Bachelor of Engineering (Civil), University of Melbourne	
Contact Details	Irwin Structures Pty Ltd 21 Church Street, Port Melbourne 3207 Telephone 03 9676 9502 Email pi@irwinstructures.com.au	
Year of Birth	1960	
Memberships & Endorsements	Fellow of Engineers Australia [FIE Aust], Civil & Structural Colleges. Admitted to Engineers Australia Professional Standards Scheme (via Irwin Structures) 2014. Scheme discontinued in 2016. Engineers Australia Certified Professional Engineer [CP Eng]. Engineers Australia National Engineering Register [NER]. Member, Asia Pacific Economic Co-operation (APEC) Engineer Register. Register of International Professional Engineers Agreement (IPEA)CAV., Registered Professional Engineer, Reg No. PE0000895. Registered Building Practitioner, Draftsperson, Building Design, Architectural, Reg No. DP-AD-24450. Member, Building Dispute Practitioners' Society Inc. [BDPS]. Member, Forensic Engineers' Society of Australia. [FESA].	
Publications		

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Title	Description	Forum
Yikes, My House is Cracking! What'll I do?	E-book aimed at the public. Evolution of previous <i>Solutions to Cracking in Houses</i> .	Amazon
Defective portal frame designs in housing.	De-identified structural safety report.	CROSS AUS. November 2024
Remedial Works Settlements - Cautionary Tales	Journal Article	BDPS News, August, 2021
Protection Works, Tips & Traps	Journal Article	Intersect, September, 2020
Industrial Pavement Disputes - Green Fields & Grey Areas	Journal Article	BDPS News, January, 2021
Staying out of Trouble - Tips to avoid litigation (peer reviewed by John McFarlane)	Journal Article	ACSEV News December, 2019
Obituary: Professor Emeritus Leonard (Len) Kelman Stevens AM (co-authored with Russell Brown)	Journal Article	ACSEV News March, 2019
Avoiding & Resolving Building Disputes, What can be done with AS 2870 & associated references?	Journal Article	ACSEV News November, 2019
Key Steps in Building Movement Investigation	Journal Article	BDPS News, June, 2019
Apart from the Roads & the Aqueducts 150 pages. (co-authored with Andrew Boak)	Book	Commercial publication
Ghosts of Bridges Past. The civil works of HB Irwin	Journal Article	Engineers Australia Heritage News, July 2018
Problems with Swimming Pools	Journal Article	BDPS News, August, 2017
Principles and practices, an engineering perspective	Submission	Australian Government Senate Nanny State Inquiry
Floor Stiffness, How Much Bounce is too Much?	Journal Article	BDPS News, January, 2016

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Solutions to Cracking in Houses	E-book	Commercial publication, 2012
Electronic Document Exchange (co-authored with John Browning)	Journal Article	BDPS News, October, 2011
Remedial Solutions to Reactive Building Movement	Journal Article	Article, BDPS News, July, 2011
Building movement research project.	Project input contributions	Foundations & Footings Society & Swinburn University, 2010
Expert's Corner, Protection Works	Journal Article	Article, BDPS News, June, 2011
Reactive Foundation Movement, Causes & Responsibilities	Journal Article. 2010 BDPS Essay Prize winner	BDPS News, June, 2009
Sustainability	Journal Article	Architecture Victoria, Nov, 2008 Republished in the BDPS News, April, 2009
The Business of Practice	Journal Articles	Regular series, ACSEV News 2002 to 2004

Presentations		
Title	Forum	Date
Mediation in the Building Appeals Board – Is it any different?	VCAT panel presentation with BAB members.	July 2024
Construction Quality Panel Discussion	University of Melbourne, Law School	May 2024
Protection Works - Structural Engineering	Building Appeals Board	December 2023
A Close Shave in the Supreme Court	Forensic Engineering Society of Australia	November 2022
Protection Works, Tips & Traps	The Australian Institute of Building Consultants.	March, 2022
Working with Lawyers. (Joint presentation with Les Schwarz).	The Forensic Engineering Society of Australia.	February 2022
Managing Protection Works	Master Builders Association Of Victoria	December 2021
Protection Works, Tips & Traps	Design Matters	August 2020

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Our Courts and Tribunals Under Lock Down	Forensic Engineering Society of Australia	May 2020
Forensic Structural Engineering, A New Field Emerges	Engineers Australia Victorian Structural Branch.	February 2020
Problems & Solutions - An Engineer's Perspective	Crown Leadership Construction Law Masterclass.	August 2018
Avoiding & resolving building disputes, with a focus on AS 2870	Association of Consulting Structural Engineers Victoria & Foundations & Footings Society	August, 2018
Apart from the Roads & the Aqueducts. Introduced by Engineering Heritage Chair, David Le Lievre.	Public book launch, Old Colonists' Association, Ballarat.	May 2018,
Protection Works	Association of Consulting Structural Engineers Victoria.	August, 2016
Aerial photography archives	The Forensic Engineering Society of Australia.	June 2016
Excavation damage	The Forensic Engineering Society of Australia.	November 2015
Personal Choice and Community Impacts, an engineering perspective. On behalf of FESA.	The Australian Government Senate inquiry committee.	September 2015
City of Port Phillip Urban Design. (Invited member, presenter)	City of Port Phillip Urban Design Framework Stakeholder Forum,	2012 & 13
When the Earth Moves, Response & Redress	The Victorian Bar Association.	August 2012
"Expert Evidence Fundamentals" Panel member and presenter	The Institute of Arbitrators & Mediators seminar.	October 2012
Soil and Buildings - Grounds for Dispute	BDPS discussion evening.	Sept 2010
Courses		
Content	Forum	Date
Owner Builder E-Learning Assessment	Victorian Building Authority	January, 2024

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Mediation training, One day course	Swinburne Professional Education	July 2021
Good Governance Board member training One day course	DELP	May, 2021
Photographic training One day course	Michael's Media School	October 2017
Judicial decision training Natural Justice Short course.	Building Appeals Board	August 2014
OH&S Training Red card training course,	Master Builders' Association	November 2008
Urban Search and Rescue Training, One day course.	MFB	June 2006
Expert witness training	NSW Global. Professor (former Justice) George Hampel	September, 2006

Committees		
Organisation	Role	Era
VCAT Users' Group	Invited member	2022
Victorian Building Authority, part 7 of building act review	Committee member 2015	2015
Victorian Building Authority, regulation review	Committee member	2014 & 2015
Building Commission subcommittee, <i>Protection Works</i>	Member & instigator	2012
FESA Committee	Member Vice President Secretary President Secretary	2011 to date 2014 to 2019 2019 2019 to 2023 2023 - current
BAB subcommittee, <i>Protection Works</i>	Member	2010 & 2025
BAB ethics subcommittee,	Member	2025
BDPS Committee	Member Vice president President	2008 to 2019 2011 to 2013 2013 to 2015

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University of Melbourne, Department of Civil Engineering, Industry Advisory Committee	Member	2003
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Past Positions		
Organisation	Role	Era
Building Appeals Board	Member	2009 to 2012 Re-appointed 2014
Irwinconsult	Associate Director Retained as a consultant	2007 to 2009 2009 to 2015
Melrose Street Pty Ltd, townhouse developers,	Director	2008 to 2011
Design Action Consulting Engineers Pty Ltd and its progenitors.	Managing Director	1988 to 2007
TD&C consulting engineers	Project & Contract Engineer	1987 to 1991
M.R. Anderson & Associates	Design Engineer	1985 to 1987
Costain Pearson Bridge	Civil Construction Engineer,	1984

Construction Project Experience	
As Forensic Engineer and Expert Witness since the 1990s	Investigations, reports & witness activity for building disputes. Hundreds of court & tribunal complying reports and numerous appearances.
As Associate Director of Irwinconsult 2007 to 2009	Leading a team in the structural design of many projects, residential, commercial and industrial. Projects including the Royal Botanic Gardens, Cranbourne and Belconnen Arts Centre, ACT.
As Director of Design Action Consulting Engineers and its progenitor, 1992 to 2007	Structural and civil design of thousands of projects, residential, commercial and industrial. Diverse projects, many architecturally complex residential. Building investigations including over 200 for the Office of Housing building movement programme 2000 to 2007. Conservation projects including major historic buildings such as Ormond College Parkville, major churches & cathedrals.
As Project Engineer with TD&C Engineers, 1987 to 1990.	Leading and assisting design of hundreds of structural and civil design projects, residential, commercial and industrial. Site inspections and supervision.

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As Project Engineer with M.R. Anderson & Associates, 1985 to 1997.	Design of structural and civil design projects, residential, commercial and industrial. Site inspections and supervision.
Site engineer. Costain Pearson Bridge, 1984 - 85	Graduate engineer, bridge & civil construction projects, Tasmania and Victoria.

Independent activities as builder/developer	
1991	New residence at Caroline Street, Clifton Hill
1992	Joint Venture Development, Four Townhouses, Langridge Street, Abbotsford
1997	Residence at Little Walker Lane, Clifton Hill
1998	Second residence at Little Walker Lane, Clifton Hill
2002	New residence and studio at Stokes Street, Port Melbourne
2003	Improvement work to second residence at Little Walker Lane, Clifton Hill
2006	Internal improvement works to office at Railway Ave, Ringwood
2008 to 10	Director, Melrose Street Pty Ltd, townhouse developers. 27 Townhouse project, North Melbourne
2012	Improvement works; office premises, Church Street, Port Melbourne.
2013	External improvement works to office at Railway Ave, Ringwood
2016	Improvement works to residence at Stokes Street, Port Melbourne
2024	Renovation and alteration works to residence at Stokes Street, Port Melbourne

Awards	
2001	ACSEV Steel Design
2002	AISC Steel Building Design
2004	ACSEV Steel Design
2006	ACSEV Residential Design
2006	Building Commission CPD Commendation
2008	ACSEV Residential Design
2010	BDPS News Essay Prize