

CURRICULUM VITAE

Name: Andrew J Hallum
BSc(Hons), CEng, MICE, MIStructE

Nationality: British

Profession: Chartered Engineer

Position in Firm: Associate Director



Key expertise: An experienced designer and design manager for structural projects. Since graduating in 1986 he has acquired expertise in the surveying, appraisal and repair of both recent and historic buildings and structures. He is a chartered civil and structural engineer. His knowledge encompasses masonry, concrete, timber, steel, wrought and cast iron. His experience includes, offices, schools, hospices and hospitals, housing, commercial, industrial, wastewater and bridges. His design experience has been combined with periods on site, he therefore understands the need for sensible and practicable design. Andrew now spends much of his time providing expert advice to clients. Andrew's particular areas of expertise include:

- New building structures design, across many construction market sectors.
- Structural surveys and inspections, forensic appraisals and reporting.
- Building conservation, restoration, renovation, refurbishment and remediation.

Education:	1986:	BSc(Hons) Building Engineering, University of Bath
Qualifications:	1992:	Chartered Engineer (CEng)
	1992:	Member of the Institution of Civil Engineers (MICE)
	1993:	Member of the Institution of Structural Engineers (MIStructE)
Publications:	1999:	Structural Faults + Repair-99 – “Aberthaw Power Station: Repairs to Fire & Vibration Damaged Turbo Block”, co-author
	2006:	The Structural Engineer (Volume 84, No 6, 21 March 2006) – “Our Role in Conservation”
Awards:	1997	Plas Mawr, RICS award for building conservation
	2001	IStructE Wales Branch Prize for the presentation “Plas Mawr, Conwy – The Conservation and Restoration of an Elizabethan Town House”
	2007	IStructE Clancy Prize for the paper “Our Role in Conservation”
	2014	Aaron Brutes Bridge, ICE Wales “Special Award for Heritage”
Appointments:	2003/04	IStructE, IStructE Engineering Practice Committee
	2004/05	IStructE, Wales Branch Chairman
	2004/05	IStructE, Member of Council
	2004/05	IStructE, Professional Conduct Committee
	Current	IStructE, Wales region committee member
	Current	IStructE, Wales region professional review coordinator

Experience Record:

Capita property and infrastructure – Expert Witness and Advisory Services Sept. 2014 onwards

Associate Director

Support to the instructed experts in investigating and preparing expert advice in a c. £100m dispute over alleged defects in, and delays to a major reinforced concrete transport infrastructure project.

Appointed expert to advise upon the construction of a roller compacted, cement bound pavement on a waste management site in South Wales and its effectiveness as an impermeable barrier to effluent.

Expert appointed to advise upon several issues at a medical waste management centre in the UK. Included fibre reinforced concrete external paving and internal concrete floor slabs.

Appointed expert for matters relating to water ingress into the basement level of a reinforced concrete car park for a food store in Essex.

Initial support to the appointed expert and subsequent appointment as the expert. Advising on excessive deflections in a glulam roof structure over a swimming pool.

Appointed expert to advise on the quality of ply flooring sheets used within a London visitor attraction.

Jointly instructed expert advising on alleged design defects at a major berth extension in the UK. Matters relate to the design and detailing of reinforced concrete elements.

Instructed expert to advise on the stability of brickwork masonry. During refurbishment works to a Grade II listed building part of a wall collapsed and other areas of brickwork were identified as being unstable.

Provided technical support and advice to the appointed expert in respect of design issues relating to a 60-storey, reinforced concrete (rc) building in Dubai.

Expert witness on matters relating to water damage. During refurbishment works to a hospital site in Bury, leaks occurred from plumbing works.. Required to consider whether there were pre-existent, alternative water and/or moisture sources that may have contributed to or caused damage.

Assisted the appointed expert on technical matters relating to several large manholes on the alignment of a transport infrastructure project in the midlands. Looked at potential structural failure mechanisms for pre-cast, reinforced concrete, cover slabs together with the pre-cast concrete segment walls and the concrete bases.

Capita property and infrastructure – Building and Historic Structures

March 2000 to Aug. 2014

Associate – Expert witness and advisory services support

Assisted an instructed expert in matters concerning defects to a large reinforced concrete desulphurisation tank in South Wales. Primarily based on site, advising and coordinating testing and investigations. Also regular meeting attendances and the taking independent records and observations of operations on site.

Assistance to the instructed expert in investigating and preparing expert advice in dispute over defects in the performance and adequacy of remediation to a reinforced concrete basement structure to a London hotel.

Associate – “Historic” inspection and repair matters

Ynysangharad Park Lido, Pontypridd – Structural fabric condition surveys and advice in respect of proposed conservation and refurbishment works to bring these baths back into public use.

Aaron Brute’s Bridge, Blaenavon – Responsible for the delivery of a phased conservation to a cast iron bridge, with stone masonry abutments and wing walls. Built on the line of an old tram road, within the Blaenavon World Heritage Site, and listed as a scheduled monument.

Former YMCA Building, Merthyr Tydfil – Managed the detailed structural survey of the structural fabric and subsequent advice providing recommendations for holding measures.

Cyfarthfa Castle, Merthyr Tydfil – Coordinated and involved in the detailed structural inspection of this Grade I listed building. Detailed report produced, clearly setting out findings and observations.

Hafod Arch, Near Brynmawr – Detailed structural inspection of this scheduled monument. Assessed and reported on findings, making recommendations for conservation works. Subsequently oversaw the masonry consolidation and repair works, as well as administering the contract via a part time site supervisory role.

Llanyrafon Manor Farm, Cwmbiran – Undertook detailed structural condition surveys, with subsequent factual reporting, of several buildings making up this estate, listed Grade II*.

Monnow Bridge Gate-House – “Principal Inspection” and reporting for the Gate House structure of this Scheduled Ancient Monument. “Priority Items Report”, highlighted areas requiring urgent attention. Oversaw the first phase of priority repairs. Obtained consents from Cadw, the Environment Agency and Building Control for a proposed second phase of works.

Hengoed Viaduct – A very large former railway viaduct. Produced conservation and repair strategies and specifications for this Grade II* listed structure. Heritage Lottery funded works brought back the viaduct into use as part of the Sustrans cycle network. Shortlisted for the IStructE Infrastructure Heritage Award in 2006 and ICE Historic Bridge and Infrastructure Awards 2007.

White Hart Depot, Plumstead – This grade II listed building required a masonry monitoring specification, as part of a “de-watering” proposal, to facilitate construction of the Crossrail Plumstead tunnel portal.

Mealbank Quarry, Ingleton – This quarry site is a Scheduled Monument. Brief visual inspection of the dilapidated Hoffmann Kiln and associated quarry buildings. Provided structural advice, as part of an overall options appraisal for the conservation, consolidation and opening up of the site to visitors.

Darwen Tram Shelters, Blackburn – Specialist structural advice on causes of cracking. Both structures, dating from 1902, were load-bearing stone masonry construction with a domed timber roof structure.

Tredegar Town Clock – Assisted in obtaining funding from Cadw for the refurbishment of this iconic landmark dating back to 1858. Procured and oversaw the works to this Grade II* listed cast iron clock tower.

Metropole Theatre, Abertillery – Overview of refurbishment proposals to this small, but interesting, theatre. The structure incorporated ornate cast iron columns whilst the roof had several large timber trusses.

Associate – Building structures

London Academy, London Borough of Barnet – Oversaw the structural delivery, up to RIBA Stage 3, for a new 2 forms of entry (420 place) primary academy.

Oak Lodge, London Borough of Barnet – Oversaw, as far as RIBA stage 3, the structural delivery for a proposed new two storey extension, integrated onto the restricted existing site.

Sobell Redevelopment, Aberdare – One of the team of structural engineers responsible for the concept design of a large mixed use educational facility.

Bristol Royal Infirmary, Welcome Centre – Single storey extension to create a new entrance and public retail space, including partial re-configuration / refurbishment to one existing floor. Visual inspections on site, combined with investigation and review of archive material, enabled informed decisions to be made.

Cyfarthfa High School, Merthyr Tydfil – Design management for a steel framed, three storey extension to an existing high school, providing additional classroom / teaching space and associated accommodation.

Swindon Borough Council Partnership – Oversaw the delivery, primarily of professional structural engineering services, for several new school projects.

Powys Framework Agreement (2005 to 2011) – This framework captured many different types of new building project as well as survey and advisory services. These included:

- Maesydderwen High School – Full structural engineering services for this phased redevelopment.
- Maesydderwen Catchment Area – Rationalisation of primary school provision relating to four school sites. Structural option studies and requirements to inform employer's requirements.
- John Beddoes High School – "Design" and procurement of works to provide inclusive access.
- Builth Wells High School – Full structural engineering services for a two storey extension.

Hyder Consulting, Building and Historic Structures

August 1986 to February 2000

H M Prison, Cardiff - New Cell Block Extension – Engineer's Representative on site observing the sub-structure and superstructure construction packages.

Swansea WWTW, Sludge Digester Tank – Structural inspection, to record cracking in this reinforced concrete sludge digester tank following an "explosion". Assessment and development of remedial works.

Cardiff Centre for the Visual Arts – Structural investigations and assessments to inform outline designs for "Employer's Requirements" to convert the Grade II* listed Old Library in the centre of Cardiff.

Midland Bank Improvements – Involved in the refurbishment of several Midland Bank branches.

Plas Mawr, Conwy – Structural survey works, and subsequent conservation works, to this Grade I listed, Elizabethan Town House. Detailed site investigations and measurement to enable "back analysis" of remaining sound oak timber sections.

Aberthaw "B" Power Station, South Wales – Site Supervisor, on behalf of National Power, overseeing reinforced concrete repairs to fire damaged turbine block structure.

Ministry of Defence Installations, Falkland Islands – Structural and fabric condition surveys, and subsequent reporting thereon, of 77 buildings.

Aberthaw "A" Power Station, South Wales – Part of a team that undertook structural inspections, for cracking and other concrete defects, to ageing reinforced concrete structures which were both on land and out to sea.

Housing Schemes, Scotland – Design Manager for several developments comprising both housing and tenement blocks, with associated access roads and drainage.

Malthouse Road Overbridge, Cwmbran – In excess of 100m in length over a cutting f up to 12m in depth. Designed as a cast in-situ, reinforced concrete integral bridge. Independent Category 3, design check.