

Gifford

Civil Engineering
A Gifford Centre of Excellence

Gifford delivers expertise and shares knowledge across a broad range of disciplines, organised into three Centres of Excellence:

Buildings – Building Structures and Building Services

Civil Engineering

Environment Development Planning

Within each of these Centres of Excellence key disciplines are championed by experts in their fields. The depth of knowledge of these experts and the teams they lead provide Gifford clients with the quality of thinking needed to meet their objectives.

Civil Engineering

Civil Engineering plays a fundamental role in our lives and our communities. At Gifford we have a long history of providing essential infrastructure projects and multi-modal solutions incorporating energy, rail, road and marine.

Our teams of engineers share knowledge across disciplines, ensuring clients benefit from the latest thinking and best technical solutions available throughout our three Centres of Excellence. We take responsibility for the whole project from beginning to end – balancing commercial and technical considerations with our concern for potential environmental and social impacts.

We work to ensure projects are delivered on time and provide significant added value to our clients and end-users. Using an inter-disciplinary approach we provide a cost-effective, efficient service aiming always to exceed client expectations.

The need to maintain business continuity during complex construction or redevelopment schemes presents significant challenges. Reflecting our enthusiasm, creativity and total commitment to client satisfaction, we apply strategic and innovative thinking to develop exciting projects of world class quality.





Highways and Transportation

Our engineers and specialists understand the fundamental and wide-ranging effects that efficient highways and transportation networks have on a nation's economic, environmental and social prosperity.

From strategic advice and development of major motorway schemes to minor improvements, and from route selection to detailed design, we have the skills to carry out all aspects of planning, design and supervision. Our expertise even extends to specialist areas such as communication design for Intelligent Transport Systems. We share knowledge, working in partnership with our clients to develop solutions for technically challenging and complex projects.

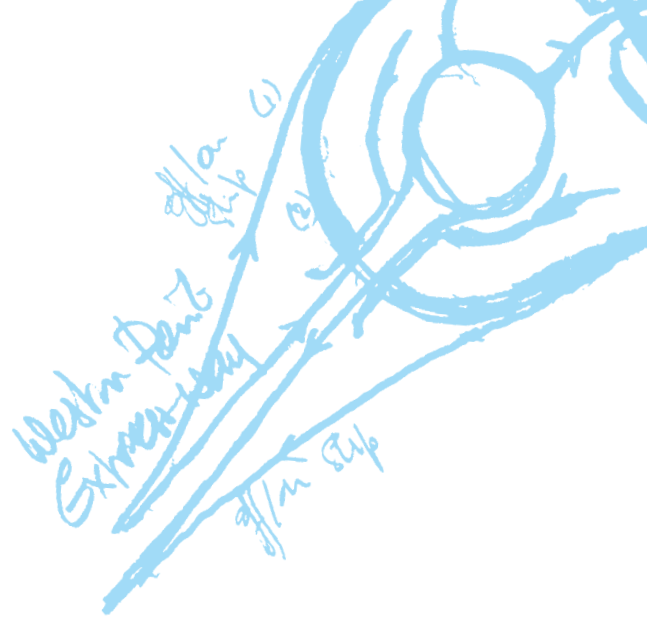
Working with the Highways Agency, Transport Wales and Local Authorities our experts play a major part in improving the road network in the UK and in Ireland with the National Roads Authority. Gifford clients also include contractors, Private Finance Initiatives (PFIs), developers and fabricators/suppliers. Our experience ranges across procurement types including Early Contractor Involvement (ECI), Design and Build and direct client appointment.

Gifford is committed to sharing excellence. This means our experts in Highways and Transportation are adept at developing teams dedicated to delivering projects in collaboration with other teams. Our enthusiasm for collaborative work is demonstrated through:

[Our project leadership of the £390 million Mersey Gateway scheme.](#) Acting as project manager and lead consultant we have also used our expertise to steer through environmental and social impact studies, economic and transportation assessments and the Local Transport Plan (LTP) Major Scheme Appraisal to achieve programme entry status within Regional Funding Allocation.

[Our Framework Contract with Hampshire County Council \(HCC\).](#) Co-located and working with both joint venture partner Mott MacDonald and HCC we are supporting delivery of a number of local transport schemes. Key components include Transport Planning, stakeholder engagement, highway design, school safety and travel planning and structures advice.

[Our close partnership with Cheshire County Council's \(CCC\) Highways Department.](#) Gifford has been working with CCC to secure outline and detailed planning permission for Parkgate, Knutsford, a major industrial and business park. The highways and infrastructure advice we have provided has included utilising critical analysis techniques to produce cost plans and identification of potential risks and opportunities during the early phase of development.



Key Areas of Expertise

Feasibility Studies and Planning

Public Consultation and Public Inquiries

Design and Construction Supervision

Motorway and Trunk Road Widening

Value Engineering and Alternative Design

Gantries

Asset Management



Project profile: M1, J25 – 28

Working for the MVM joint venture group, which comprises Vinci, Sir Robert McAlpine and Morgan Est., Gifford WSP is acting as designer for this £340 million Highways Agency scheme.

Approximately 23km of motorway between J25 and J28 in the East Midlands is being widened in order to reduce congestion on this vital main route between London, the Midlands and the North. The project involves using the existing hard shoulder to create four lanes and the addition of a new hard shoulder.



“”

I wish to place on record my delight in the way the contract has gone... I believe that the design and build partnership with... Gifford housed in our own offices has shown others how true partnerships can be developed and has helped to build a harmonious relationship.

Tony Turton, Project Manager, Birmingham City Council (now with the Highways Agency) commenting on the Masshouse Regeneration Scheme.

Bridges

Gifford is a specialist bridge designer with a reputation for creating 'landmark' iconic bridges and major structures across the globe. This enables us to provide clients with an unequalled level of knowledge and service.

With our extensive experience of bridges in concrete, steel and timber construction, involvement on relevant code committees, and recognised innovative approach, we deliver cutting edge, appropriate design for any bridge project.

Gifford has one of the largest bridges teams in the UK, with more than 100 of our technical staff specialising in all aspects of bridge engineering including the design of major crossings, medium-span bridges for highway and rail schemes, footbridges, inspection, assessment and remedial strengthening works and research.

Working with both government bodies and contractors we have made major contributions to Design and Construct, ECI and PFI projects.



Key Areas of Expertise

Design

Checking

Assessment

Feasibility Studies

Strengthening

Analysis and Testing

Codes and Standards

Asset Management

Profile:
Peter Curran
BSc (Hons), CEng,
MIStructE, MICE
Director, Bridges

Peter began his career as a graduate engineer at Gifford and has now progressed through the company, building up almost 25 years of specialist expertise in the bridge engineering field.

His recent experience includes the design and project management of a number of outstanding architectural footbridges including the award winning Gateshead Millennium Bridge.

Peter specialises in high quality technically complex structures working in a variety of materials. He has been involved with a number of structures within environmentally sensitive landscapes, most recently leading the team through the Public Inquiry process for the proposed second opening bridge in Poole, Dorset. Major projects include the award winning Dee Estuary Bridge and Second Severn Crossing.

An inaugural Editorial Board member of Bridge Engineering magazine, Peter has also written many technical papers for journals and conferences and taken part in a number of broadcasts.



Rail Engineering

With an enviable reputation for high-quality and innovative work on infrastructure projects, the Gifford rail group is responsible for all activities on heavy and light rail. Our Link-Up approval embraces the full range of rail related engineering services, from geotechnical analysis and permanent way to building services and regeneration.

Recognising the prime importance of safety, we have a Contractors Assurance Case with Network Rail while all our staff are Personal Track Safety (PTS) trained. A number are also Individual Working Alone (IWA) qualified and accredited for work for London Underground Limited (LUL).

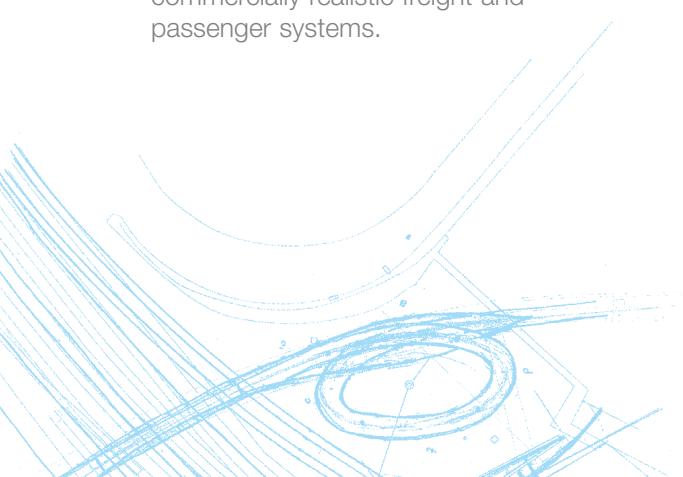
Gifford expertise covers all areas of the rail network. We are therefore able to supply clients with state-of-the-art analysis, knowledge and advice on strategic and macro regeneration issues and provide one-off strategic and technical services.

In partnership with European rail consultancies we also provide a comprehensive advice and support system for the provision, procurement, development and operation of commercially realistic freight and passenger systems.

Project profile: Docklands Light Railway (DLR)

Funded by Transport for London (TfL) and the Olympic Delivery Authority (ODA), this £200 million infrastructure scheme will see the DLR upgraded from two to three-carriage train capacity in the lead up to the 2012 Olympics. Gifford has been commissioned to undertake the design work in partnership with another consultant engineer (Arup).

The project will be completed in 2010, allowing the DLR to keep pace with passenger demand.



Key Areas of Expertise

Station Regeneration

Inspection and Assessments

Structural Design, Strengthening
and Modification

Route and Inter-Modal Studies

Major Rail Schemes

Research and Innovation

Geotechnics



Marine and Coastal Engineering

Gifford experience of marine and coastal engineering encompasses a wide range of maritime sectors and situations. Our marine specialists and teams provide a complete service for marine-focused projects ranging from planning, design, engineering and environmental expertise through to full project leadership and project management. This enables clients to benefit from our insight from the early stages of project development, right through to completion.

We undertake schemes of all sizes in the UK and internationally and are able to draw on the skills of specialists from across Gifford as required, providing our clients with an integrated approach to often complex projects.



Project profile: Liverpool Cruise Liner Facility

Gifford and contractor Balfour Beatty were awarded this £19 million Design and Build contract on the basis of our proposal for concrete pontoons. The client, Liverpool City Council, had originally specified a traditional steel pontoon design but concrete construction offers significant durability, maintenance and cost benefits.

Opened in autumn 2007, this new facility features four pontoons connected end to end to form a new 250m long floating concrete platform providing a berthing face and moorings designed for ships such as the Queen Mary II. It also includes a reception building, pilot boat building, covered walkway and a full turning circle for coaches. Access to the facility is down a 10m wide 90m long new vehicle linkspan from the historic Liverpool quayside – a World Heritage Site immediately adjacent to the famous Liver Building.



Key Areas of Expertise

Ports, Harbours and Marine Terminals

Coastal Environment and Defence

Marine Industrial – Dockyards and Shipyards

Marinas and Waterside Developments

Maritime Heritage

Energy

Our integrated teams of engineers and specialists have the range of skills needed to deliver projects in all aspects of the energy and utilities markets. The services we provide range from conceptual design and feasibility studies to detailed design and asset management.

Current Gifford projects include design and assessment work for the nuclear decommissioning industry. Using our expertise in advanced analysis techniques, we are also actively involved in the design of large storage tanks for the oil, gas and water industries throughout the world.

At the forefront of renewable energy systems development since the 1970s, we have extensive experience of both wind and wave power sources. We also possess the technical skills required to inform and support the resurgent clean energy technologies industry.

Key Areas of Expertise

Offshore and Onshore Renewable Energy

LNG/LPG Terminals and Storage Tanks

Nuclear Facilities



Image: North Hoxle Wind Farm,
The British Wind Energy Association.

Recent awards

A58 Blackbrook Diversion, St Helens
Green Civil Engineering Project of the Year 2007

Pont King Morgan, Carmarthen
Structural Steel Design Awards 2007
– Commendation

ICE Wales Project Awards 2007
– Small Project Award Winner

Teardrop Junction Improvement Scheme,
Havant, Hampshire
ICE South Branch Awards 2007
– Major Project Award

Celtic Gateway Bridge, Holyhead
ICE Wales Project Awards 2007
– Large Project Commendation

M25 Motorway Junctions 12 to 15 Widening
& M25 Spur Road Stage 2, Surrey
Highways Agency Major Projects Awards 2007 – World Class Delivery Award and Journey Time Reliability Award
British Concrete Society Awards 2006 – Certificate of Excellence, Civil Engineering Category
British Construction Industry Awards 2006
– Highly Commended

Cathaleen's Falls Bridge,
Co. Donegal, Ireland
Irish Concrete Society Awards 2007
– Overall Winner and Infrastructure Award

Govan Underground
Tunnel Dewatering Scheme
British Geotechnical Association Fleming Award 2006 for excellence in geotechnical design and construction

Saltire Society Awards for Civil Engineering 2006 – Project Commendation

Central Park Entrance Gateway, Manchester
British Concrete Society Awards 2006
– Civil Engineering Award Winner

West Bay Harbour, Dorset
ICE South West Overall Project Award 2006

Coalport Bridge, Shropshire
ICE West Midlands Overall Project Award and Heritage Award 2006

The Historic Bridge & Infrastructure Awards (supported by ICE Panel for Historical Engineering Works, CSS, English Heritage, British Waterways and Network Rail) 2005

Cadishead Way Stage Two
Construction News – Medium-sized Project of the Year 2006,
Highly Commended

A34/M4 Junction 13 Chieveley Improvement
Concrete Society Awards 2005
– Commendation

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Rail Engineering



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