

Tony Gee News

Tony Gee to support 'Missing Link' construction

Tony Gee is set to be part of the alliance constructing the A417 'Missing Link' route between Gloucester and Swindon, connecting the North and the Midlands to the South of England, as part of a £460m infrastructure project.

The 'Missing Link' is a three-mile stretch of single lane carriageway on the A417 between the Brockworth bypass and Cowley roundabout in Gloucestershire. Traffic congestion here is frequent forcing motorists, including HGV drivers, to divert onto smaller roads and causing difficulties for neighbouring communities along these alternative routes. Those that use this road will be aware of the compelling case to improve safety, ease congestion and reduce pollution. It will also support local economic growth.

Subject to a successful Development Consent Order application, 3.4 miles of new dual carriageway will be constructed. Tony Gee will be working for Kier Highways as part of a design alliance which also includes RPS and Kier Design Services. The scheme is located within the Cotswolds Area of Outstanding Natural Beauty and will be a landscape-led scheme.

Tony Gee's team is providing highways, structures and geotechnical design services. Colin Fowler, Project Director, said: "It is very satisfying to receive feedback that our collective performance on the recent A585 Windy Harbour project gave National Highways the confidence to award such an exciting and challenging project as A417 Missing Link to the Kier Highways, Tony Gee, RPS and KDS team."

David Lea, Tony Gee Project Lead, added: "Tony Gee's expertise and values are well aligned for the design of this nationally significant project which will improve a problematic section of the strategic road network using a sensitive, collaborative and technically sophisticated approach."



Canada calls...

Tony Gee is delighted to announce the expansion of its international business into Canada.

Tony Gee Canada will be based in Toronto, Ontario, and will initially target the transportation and transit sectors, focussing on rail and contractor support for both permanent and temporary works. The office will officially open later this year with additional support being provided initially from the UK, Hong Kong, Malaysia and UAE.

Jon Powell has been appointed as Managing Director of Tony Gee Canada and will be re-locating to the region. The team looks forward to working with existing clients on exciting projects and to introducing new ones to Tony Gee's brand of proactive, innovative and efficient engineering.

Chris' Corner

Throughout the pandemic we have continued to invest in students and apprentices at the same rate that we always have so it was fantastic to finally hold our first conference for them in three years. It was wonderful to see them and be able to soak up their enthusiasm and expectations for their future careers.

The theme of the conference was 'Change' but this was not a depressing retrospective look at recent events but rather a positive and energising few days looking at the exciting changes ahead. There was an encouraging appetite for real change in the way we work with digital tools and for the environment. Topics of inclusion and career development are uppermost in our plans so there was a heavy focus on more sustainable power generation and the wider sustainability of our work.

While there is significant political change and unrest, both in the UK and internationally, the drivers for positive change around the environment, better working relationships, better contractual relationships with clients (value tool kits, construction playbooks, etc) are there to see. We continue to look to the positives, and I look forward to working more with these bright young minds, introducing them to the world of construction and our clients in the coming years.

Tony Gee has a long history of investing in students and apprentices. If you wish to learn more and potentially get involved in our annual conference as a client, supplier or industry body please do get in touch.



Chris Young

Executive
Managing
Director



Single span success in Birmingham

The SAS13 bridge, near Birmingham city centre, has been replaced with the Midlands' largest single span railway bridge.

Tony Gee has been Skanska's main designer for the project including for structural, geotechnical, permanent way, OHLE and temporary works designs, and involved since the options stage.

The project was completed during a three-week blockade of the SAS lines and three weekend possessions of the Derby lines in Birmingham.

The bridge was designed to be fabricated on land adjacent to the railway and transported into position during the first weekend in May. The

installation operation went ahead without a hitch.

The blockade works were completed on schedule with Tony Gee attending and supporting. In the months leading up to the blockade the abutments were partially constructed below and either side of the masonry arches of the existing bridge. The east abutment was founded on large diameter piles, but due to access constraints, the west was founded on two 4.5m diameter 20m deep caissons.

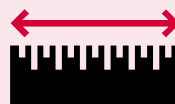
Tony Gee devised a temporary electrical feeder route to ensure continuity of supply to the West Coast Mainline.



Bridge Transportation
Weight: 2500 tonnes



Installed weight:
3200 tonnes



Bridge span:
92m



Type: Weathering steel
warren truss with
composite concrete deck

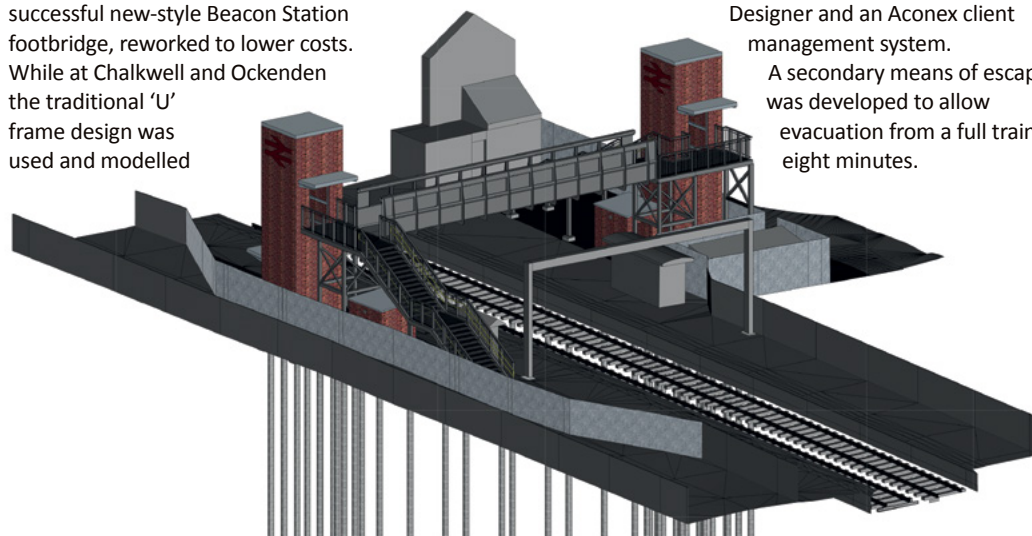
Access for All progress in Essex

Tony Gee and J Murphy are working on Access for All schemes at Essex stations for Network Rail and C2C.

The Southend East design mirrors the successful new-style Beacon Station footbridge, reworked to lower costs. While at Chalkwell and Ockenden the traditional 'U' frame design was used and modelled

as space frames using MIDAS and STAAD structural analysis software. Building Information Modelling Level 2 was adopted using Bentley Open Buildings Designer and an Aconex client management system.

A secondary means of escape was developed to allow evacuation from a full train in eight minutes.



Australian bridge opens early as a state favourite

The Echuca-Moama Bridge Project, the largest infrastructure project in northern Victoria, Australia, officially opened to traffic months ahead of schedule, in mid-2022.

The A\$323.7m project was jointly funded by the Australian national, and Victorian state governments. The project provides a second Murray River crossing to connect Echuca in Victoria to Moama in New South Wales, which for over 140 years were only linked by a single Murray River Bridge, since it opened in 1878.

Stage 3 of the project included construction of a new crossing over the Murray River, named Dhungala Bridge. It also included a new crossing over the Campaspe River, the



The project's 'sneak-peek' community event in April this year attracted more than 8,000 visitors. Pictured, the Dhungala Bridge over the Murray River, Echuca-Moama Australia.

Yakoa Bridge, plus flood relief structures and a five-kilometre scenic walking and cycling path.

With client Major Road Projects Victoria (MRPV), project partner McConnell Dowell worked with Tony Gee to design Dhungala Bridge, a three-span balanced cantilever structure with a central span of 115 metres over the river. Its deck design was optimised to suit the tight construction program and an asymmetric segment layout was adopted to reduce the time required to install the form travellers.

In the design Tony Gee shortened the end-spans, and therefore, compared to traditional designs, the strategy minimised the project's costs on falsework construction. The end-span piers were also made integral with the deck to resist the uplift forces.

An event was held on Sunday 10 April 2022 to celebrate the bridge opening, with the local community invited to get a 'sneak peek' of the new bridge connecting the two state border communities. Around 8,000 people attended the event, with food, coffee, and plenty of entertainment to help mark the milestone moment.



TRU award celebrations

The Tony Gee TransPennine Route Upgrade (TRU) team was joined by colleagues from across the TRU West Alliance at the ICE North West Awards to celebrate the work achieved during last year's summer blockade.

The team, including Tony Gee, Network Rail, BAM Nuttall, Arup and Taziker, was highly commended in the constructability category, sponsored by the Temporary Works Forum.

The judges commented on the collaborative approach taken; the innovative use of technology, and the merging of permanent works with temporary works to ensure the efficient delivery of this large-scale intervention with limited disruption to passengers.

The summer blockade allowed the reconstruction of the Dantzic Street and Queens Road underbridges, two bridge strengthening schemes, and the replacement of more than 2km of track, including over a new embankment flattening the Miles Platting curve. Further work is ongoing on the project.

Retirement beckons

Tony Gee has bid a fond farewell to Executive Director Neil Farmer and Director Bill Addington.

Neil was with Tony Gee for over 30 years originally starting in the Highways Team; setting up our expertise in composites and FRP. He spent a few years in Glasgow setting up a new office, returning to Esher responsible for Business Development in the UK.

Bill has been Tony Gee's agent in Asia for 22 years. He became a Director of the Malaysia office in 2013 and alongside Evan Ho has helped grow Tony Gee Malaysia into what it is today.

We wish them all the best for a long and healthy retirement.



The future is bright for Tony Gee's young talent pool

Tony Gee's future talent pipeline has never looked healthier.

The company now has over 50 sponsored undergraduates and ever-increasing numbers of apprentices working across the business. This is more than it has ever had before.

As part of the support and encouragement that Tony Gee offers these students, the team was delighted to run our annual dedicated Student and Apprentice Week during the summer.

Run over three days, this week included a number of site visits to projects ongoing across the country, and culminated in a conference for 70 delegates, held in Manchester.

The impact this unique week of debate, networking and insight has on those at the beginning of

their journey has proven to be invaluable to past newcomers. It helps them see their potential careers in their full context and allows them to bring their training efforts and academic learning to life.

The students got the opportunity to see the designs they have been working on under construction which we see is key to their development, helping to support their understanding of the industry they are entering and sparking their enthusiasm to develop long-term careers with Tony Gee and the broader construction sector.

Due to the pandemic, this is the first time the conference could be held in three years so it was particularly exciting to once again have face-to-face interactions with the emerging talent pool.

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Collaboration overcomes Dawlish challenges

Tony Gee, BAM Nuttall and Network Rail have beaten considerable challenges on the Dawlish Colonnade to Coastguards project.

This is Section 2 of the South West Rail Resilience programme and the exposed position and access difficulties made design and construction a challenge. The works covered a 415m stretch of coastal railway including Dawlish Station, the Colonnade viaduct bridge, and the culvert carrying Dawlish Water to the beach. The goal was to provide resistance to a 1:200 year storm event, allowing for sea level rises and bedrock erosion.

The completed Phase A included a 305m, 6m high new sea wall with elevated promenade in front of the old railway retaining wall north of the station. The supporting 15-16m long, 762mm diameter, 25mm-thick steel piles were installed using a piling rig on a 'Wave Walker' jack-up-barge, with 133 12t precast concrete panels hung and secured to these. Trenches filled with abrasion resistant concrete were installed to protect the wall from scour and bedrock erosion. Low-carbon, backfill concrete behind the panels added resilience and the walls were topped with precast wave recurve units. Precast L-walls add further wave protection. Phase B is well underway with the sea wall and beach access north of Colonnade Bridge almost complete and the works in and around Colonnades/Dawlish Water in hand. These new sea walls are mostly of modular precast concrete blocks, built up from bedrock level and stitched together in situ. Dawlish Water has been temporarily diverted to facilitate the new culvert constructions and the southern piled foundations for the new link bridge. Platform works are complete and designs for a footbridge and station building are now being progressed.



Dawlish Beach Coms

Kudos to new ICE Chair

Kirsty Jamieson, from the Tony Gee Glasgow office is set to become Chair of the ICE Glasgow and West of Scotland Branch committee in September.

This branch of the ICE has around 4000 members and was formed in 1884, making it the oldest association outside of London. The branch runs an extensive programme of lectures, competitions, site visits, social and public knowledge-sharing events, and works hard to include as many interesting, innovative and inclusive topics as possible through the year. In November Kirsty will host the flagship branch annual dinner for over 600 members. It is the first dinner since 2019 with branch graduates and students as well as the ICE President expected to attend.

Economic boost for the Fleetwood area

The A585 Windy Harbour to Skippool Junction improvements near Blackpool are currently under construction by Kier Highways on behalf of National Highways.

As one of Kier's designers and structures lead for the scheme, Tony Gee has designed three new structures which have some technically challenging aspects, as well as undertaking the highways and geotechnical design on the Eastern section of the bypass. Key elements of highway improvements on the Fylde peninsula are coming together as work continues to support economic regeneration around the port town of Fleetwood in the north west of England.

The first phase of the two-stage construction of the A585 Skippool Bridge is close to completion and Tony Gee's team has recently completed a check of the 14m fully integral bridge to allow the placement of a crane needed to install the temporary retaining walls. These walls will allow the road to be operational while the existing bridge is demolished for the second phase of

works to be undertaken.

At Lodge Lane, a 43m two span fully integral bridge will allow for carriageways both below and on the bridge.

Kier Highways is currently progressing the installation of the bridge and retaining wall piles, and Tony Gee has designed a bespoke movement joint solution to allow the required movement within the structure. The movement joint consists of two parallel flange channel sections which are cast into the pile, with one face of the pile above ground, exposed to allow the installation of the movement joint.

The Grange footbridge is a 34m spanning trussed arch footbridge, which will cross the new A585 carriageway. The superstructure of the bridge is currently at the fabrication stage, and the foundations are currently being installed.

The scheme extends over 4.8km of highway, and includes junction improvements, dualling of some existing road, three new bridges, and a new bypass road.