

Tony Gee News

Christmas comes early to Birmingham shoppers



Midland Metro Alliance

The Birmingham Westside Metro extension opened ahead of schedule in December last year and Tony Gee, as part of the Midland Metro Alliance, played a major role in its successful completion.

This 840-metre battery-powered route, unique in the UK, provides a sustainable transport solution which improves accessibility and reduces air pollution, addressing Birmingham's goal to reduce carbon emissions.

Providing comprehensive civil, geotechnical and structural services, Tony Gee worked with other partners in the alliance to develop alternative designs which secured significant safety benefits and cost savings. This included removal of over 80 large diameter piles from the original scheme and an alternative fibre reinforced concrete track form. Construction through the city centre posed many challenges requiring alliance partners to design critical works adjacent to listed buildings and aesthetic tram stop structures within the sensitive urban setting. Tony Gee also supplied temporary works design enabling construction around the A38 Queensway Tunnel, and advised on sustainable options as part of CEEQUAL evaluation of the project.

The route is part of ongoing expansion of the light rail system across the West Midlands, delivering innovative, sustainable infrastructure.

ICE win for station redevelopment

A project team of Tony Gee, Network Rail and Galliford Try, has been awarded the Medium Project award for Newton-Le-Willows Station Redevelopment at the Institution of Civil Engineers (ICE) North West Awards 2020.

Working as designer for Galliford Try, Tony Gee provided all civils, structural permanent works and temporary works design. Works included the design of a 27m long subway, new station building, lift and stair structures and platform canopies.

A vital aspect of this work was identifying a design for the new subway

which could be constructed without impacting on the operational capacity of the railway.

The Tony Gee team developed an innovative approach for installing a portal structure of 30 temporary steel pipes through the existing embankment. The material within the portal was removed and the pipes were shored to create a temporary tunnel beneath the operational railway. This allowed the permanent subway to be cast in situ.

On awarding the station redevelopment, Emma Antrobus, ICE North West Director, said: "The

Newton-le-Willows station team did a tremendous job upgrading the station whilst maintaining its heritage features and improving accessibility for all, whilst also keeping the railway running."



Bright futures

2020 will probably be memorable for one reason only but let's not dwell on that too much but rather look forward to the future.

Hopefully you are all well and also looking ahead for your businesses. I believe what is important is to find the good in a crisis and build on it to create more resilient infrastructure and ever better relationships.

Past economic downturns have taught us that companies that treat their staff and clients well in times of hardship, prosper in the longer term. We also know that high-quality designs, clear communication and professional teams are the key to working a way out of difficult times.

I am confident that at Tony Gee we have the attitude and culture to support progress and have the skills to ensure we can work with our clients to ensure we all succeed.

In looking to the future, we are building better ways of working. We are taking the best of established working arrangements and blending them with our can-do, culture to create a better working environment for our staff and a better offering to our clients.

We are not just focused on the immediate economic pressures coming out of the need to recover, we also want to drive the agenda of decarbonisation and sustainable delivery through good design.

So as we return to more normal lives, they may well have changed forever but one thing remains constant, our commitment to helping you deliver to these very same goals.



Chris Young
Executive
Managing
Director



Werrington congestion solution on track for East Coast Main Line

The Werrington Grade Separation project is continuing, designed to alleviate congestion on the East Coast Main Line (ECML), by removing conflicting at-grade freight train movements.

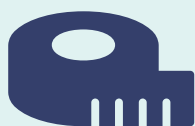
Tony Gee has designed significant works at both ends of the jacked portal structure, being completed by Morgan Sindall.

The successful track slew of the Stamford lines has created space for the construction of structures at the southern end of the dive-under, adjacent to the ECML. The northern-most of these structures is the TBM reception pit, which is over 11m deep, constructed only

3m from the ECML and includes two levels of support frames.

These frames were detailed to suit the complex construction sequence. The arrangement allows clearance for the removal of the TBMs, and internal bracing can then be adjusted for the excavation to the south of the pit without affecting stability. The pit's base slab design was re-visited, as part of this year's COVID-19 risk mitigation, and adapted to suit revised working procedures.

Construction of the jacked portal at the northern end of the site is also underway.



150m long curved jacked box



10,000t weight of the jacked box



3 separate hydraulic systems for lifting, steering and pushing



Over 800m of dive-under designed by Tony Gee

Coping successfully with COVID-19

In March all of Tony Gee's employees left their offices and decamped to their kitchens, bedrooms, studies and sheds!

They became instant experts in Skype and Teams conferences and have all communicated and supported each other regularly to deliver on-going projects. It is often said that communication is the key to success and never has this been more true than in the current climate. The ability to talk, video conference, share information, helping each other out remotely, has been fundamental to

maintaining the continuity and quality of our work.

Now, looking to the future, our teams are focused on maintaining and building Tony Gee's future talent pool and slowly returning to our offices (as allowed). To this end Tony Gee has committed to its usual level of apprentice and graduate recruitment this year and looks forward to developing them into the future.

It is people that make Tony Gee successful and committing to future professional development is key in this challenging period.



Energy Central builds potential

The regeneration of the former Blyth Power Station, on the banks of the Blyth Estuary, has reached another milestone in its progress to provide vital infrastructure for future delivery of offshore energy in the North Sea and beyond.

Construction works are underway to widen and deepen the existing dock to create quay access for larger vessels, including jack up barges, and to provide direct access to 12 hectares of land for development. Tony Gee is the lead designer for Farrans Construction, the company delivering the first phase of the Northumberland Energy Park – part of the Energy Central scheme.

The brown-field project aims to maximise the

potential for jobs and the regional economy by attracting investment from the energy sector.

Works involve installing 120m of combi-wall comprising of large diameter steel tubular piles and the thickest available infill sheets to ensure a 100-year design life. Piles installation uses an under-reaming technique to tackle the tough rock layer.

A temporary closure sheet-piled wall, across the dock entrance, will enable the de-watering of the dock and excavation works in the dry.

Two new dolphin structures will extend the berthing face, and a cantilever sheet-pile wall will provide protection to Grade II Listed timber staithe close by.

Tony Gee well placed for HS2 temporary works

Tony Gee is planning to focus its established skills in the provision of temporary works to support work on HS2.

Having tracked the progress of this nationally important project for some time, the team has been engaging with the contractor consortiums, and in some cases their designers as well, to identify where it can help develop the solutions that will be needed.

One of Tony Gee's key capabilities is the provision of temporary works design and construction methodology services. From the straightforward to the complex, the team has regularly delivered innovative, award-winning solutions across the world and achieved some significant 'firsts' along the way.

Perhaps better known for structures-related work, Tony Gee also has strong expertise in the area of geotechnical and highways related design too.

So far there has been positive engagement from all quarters on the HS2 project and the team is looking forward to the future challenges.



Significant Warrington Link contract secured

A Tony Gee led team, in partnership with Stantec, has been successful in securing the design of the 3.2km Warrington Western Link Road scheme.

Warrington Borough Council has elected to use the SCAPE Group Civil Engineering Framework, for which Balfour Beatty is sole service provider, to procure design and build services. Tony Gee will be the consultant responsible for developing the scheme concept, planning, delivering detailed design and supporting Balfour Beatty during construction.

Highways Group Director, Colin Fowler, comments: "This is a hugely significant moment for Tony Gee. Warrington Western Link is one of our largest UK highways projects and we have been appointed as lead designer. Our success is due to the fantastic work done by both Tony Gee and Stantec on the Balfour Beatty / SCAPE framework which delivered the Wokingham Major Highways Programme."



Facing facts for the climate

Tony Gee is actively working to embed sustainable, environmental policies and principles into its designs, and is leading the way on civil engineering's role in reducing environmental impacts.

The company is a signatory to the Civil Engineers Declare and Structural Engineers Declare climate and biodiversity campaigns, and has sustainability commitments embedded in its plans for the year.

Priorities include providing more sustainable

solutions to influence carbon emissions and biodiversity; and more broadly, raising awareness of the climate and biodiversity emergencies and the urgent action required.

The team is evaluating all new projects against their environmental and societal wellbeing credentials and is focused on an accelerated shift towards low embodied carbon materials and less construction waste, as well as supporting the challenge of net zero carbon targets faced by the industry.

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Dream teams in action

Tony Gee's Birmingham team has designed a new playground, created from ideas put forward by students at a local primary school, as part of a partnership with the charity Dream Networks.

Dream Networks is a not-for-profit community-interest company which exists to enable businesses, communities and educational institutions to work collaboratively on the design and build of sustainable children's play areas for the benefit of disadvantaged communities.

The initial designs and plans for the playground were decided during a workshop day with the children from St. John's and St. Peter's CE Academy.

Following guidance from Tony Gee's volunteers on how to take designs from concept to delivery, the students developed their own

realistic plans for the project.

The children created drawings of their playgrounds and modelled the equipment with clay in preparation for a presentation of their ideas in a 'Dragons' Den' style competition. The presentations were designed to allow the panel of judges (a group of the children's peers) to see how each design idea could transform the playing experience. A final design was chosen with a unanimous decision from the judges.

Tony Gee volunteers have now taken the winning design and developed it for construction, using 3D models to share the ideas with the children. The designs have been approved by the Dream Networks team, and the start date for construction is now to be agreed.



A fond farewell



It is with great sadness that we report the death, earlier this year, of Anthony Francis Gee who in late 1974 founded Tony Gee and Partners. He had retired from the firm in 1988.

Tony started his career with Maunsell and prior to establishing the new business had been leading the Bridge and Overseas division of Redpath Dorman Long's (RDL) design office. He had also worked at Mott Hay & Anderson and the Greater London Council (GLC).

The 1970's were extremely stormy times for the UK and the global economy but with oil discovered in the North Sea, Tony could see opportunities ahead. His self-confidence and optimism inspired the launch of a new practice which has evolved into the Tony Gee and Partners of today.

Our condolences go to Tony's wife Patti and our thanks goes to Tony for foreseeing future opportunities at a different, turbulent time in history.

Check up for India's oldest opening sea bridge



The Tony Gee team has completed assessment works on India's oldest opening sea bridge.

Originally constructed in 1914, the Pamban Rail Bridge is a Scherzer rolling lift bridge that opens mechanically for tall vessels.

The bridge is part of a 2km crossing point that connects Rameshwaram

Island to the mainland of India.

The project scope for Tony Gee included work assessing the existing condition of the steel trusses, checking that it is adequate for the rail traffic using it, and providing professional recommendations for any required strengthening works for the bridge members.