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Welcome to our Summer 2024 Newsletter. Reading through the articles, I am delighted by the repeated references to Co-operation and Co-ordination, two closely related approaches that are at the core of ROD's culture.

The opening of Herring Bridge in Great Yarmouth was the culmination of a fantastic spirit of co-operation that ran right through the team, promoted and supported by Norfolk County Council's proactive use of negotiated procurement and the NEC change management processes. This truly multi-disciplinary project required co-ordination between all parties, in space, time and approach, aided by our use of a federated model of the dense existing utilities, complex foundations, roads, bridges, drainage, quay walls and street furniture.

The recent installation of the two leaves of the Clyde Swing Bridge is the result of fantastic co-operation and co-ordination across an internationally diverse team, bringing together the pre-fabrication in Rotterdam and Arendonk with the pre-prepared substructures in Glasgow.

After years of co-operation and co-ordination to get the Narrow Water Bridge through design and planning approvals both north and south of the UK/ROI border, it is fantastic to see it moving to construction with the support of the Shared Island Fund.

At the opposite end of the country, what could have been the end of life for the Dursey Island Cableway has been averted by combining our inspection, assessment and design expertise with specifically developed inspection and operating procedures something that could only be achieved through the co-operation of our engineers, the operators and the client. Then, when the probabilistic assessment demanded closure, in co-operation with Cork County Council and TLI, we have brought the structure back into use while preserving its historic character.

The same spirit of co-operation and co-ordination underpins the "responsive and pragmatic approach to the delivery [of Corporation bridge,] attending site on a regular basis and engaging with wider stakeholders".

Marko Duranovic's PhD in bridge aerodynamics shows the benefit of ROD's co-operation with the Irish Research Council, combining academic and industrial research, informed by real world data from three of our recent major bridge projects, Northern Spire, Clyde and Narrow Water.

Editor: Eoin Ó Catháin Design: Conor Reilly and Claire Lambert Cover Photo: Jody Morris and Kevin Kelly of Vision Ireland, along with Vann, Kevin's Guide Dog, at the Luas platform in the Wayfinding Centre Printed in Ireland



Oliver Scale's reflections on his site experience as part of our graduate rotation programme shows how we develop rounded engineers for the future, with the spirit of co-operation being passed on through his enjoyment of walking the site with the client, helping him see the project from their unique perspective. Our two new Associates Deirdre Neff and Daniel Coleman have both shown the benefits of our multi-disciplinary training programmes, turning them into leaders capable of driving interdisciplinary co-operation and co-ordination.

The theme continues with the advance works, traffic management and offshore pre-fabrication co-ordination progressing the Waterford North Quays Public Infrastructure project, the coordination of transport planning and tree preservation on the Ballymun Finglas Bus Corridor, and the use of technology to deliver Co-operative Intelligent Transport Systems with harmonised standards across Europe.

While new infrastructure can be seen as impacting negatively on archaeology and cultural heritage, our N5 Active Travel Project is another example of how, through co-operation and co-ordination, development can enhance our understanding and appreciation of history. Similarly, the BREEAM Infrastructure Award for the A6 Dungiven to Drumahoe recognises how co-ordinated design can address our transport needs while also protecting and enhancing the surrounding environment.

Patrick O'Shea's article on biodiversity net gain describes the cooperation between CIRIA and CIEEM to further this challenge, while Paul Kissane's leadership of the Peatland Rehabilitation research is a practical example of how co-operation and co-ordination in the design of transport infrastructure can bring climate and ecology benefits.

Bringing different modes of transport together at the Wayfinding Centre will enable users, carers, operators and designers to cooperate in the delivery of the inclusive mobility that Jack Kavanagh called for in his keynote speech to the Transport Research Arena. Hosting the 60th Anniversary year General Assembly of Europengineers, as as part of our own 50th anniversary, Ines Domingues participation in their design sprint, are yet further examples of how ROD encourage co-operation across our industry. I hope you enjoy reading this edition and that you come away inspired by the ways co-operation and co-ordination achieves more for everyone.

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Contents

Bridges

ROD celebrates the official opening of Herring Bridge, Great Yarmouth	6
Narrow Water Bridge project moves to construction	7
Clyde Swing Bridge reaches Major Milestone	8
Dursey Island Cableway – Extending the life of Ireland's only cable car service	10
Bridge Aerodynamics	12
Corporation Bridge, Grimsby	13

Transportation

Significant Progress made on Waterford City's North Quays Public Infrastructure Project	16
Planning Approval Granted for Ballymun/ Finglas Core Bus Corridor	18
Upgraded section of N56 officially opened in Co. Donegal	19
EU Connected Vehicle Technology Pilot Launched	20
Green light given for Ringsend Library and Public Realm Refurbishment	21
ROD Research at Transport Research Arena 2024	22
Peatland Rehabilitation Presentation at TRA 2024	23
ROD Appointed to Active Travel Project in Roscommon	24
A6 Dungiven to Drumahoe Dualling scheme wins BREEAM Infrastructure Award	26
Engineering Project of the Year Award win for N26 Cloongullane Realignment	26
First Public Consultation Opens for N81 Route Improvements	27
Completion of Wayfinding Centre	28





Environmental

Promoting Cycle Safety and Sustainability	30
Biodiversity Net Gain and Ecological Enhancements in Ireland	31
ROD Supports Manchester City Centre Litter Walk	32
Buildings	

ROD supports delivery of new Surgical Hubs at Merlin Park and North Dublin	33
Phase 2 of Rosetown Housing Development in Rosslare nearing Handover	34
'Healthcare Project of the Year' win for Ballyshannon Community Hospital	34
New 95-Bed Community Nursing Unit at St.Colman's Hospital, Rathdrum, Co. Wicklow	35

More Stories

Waterford City Public Infrastructure Project:	
the importance of site experience to a graduate engineer	14
ROD appoints two new Associates	15
Hitting the road with ROD's company electric vehicle	29
Europengineers GAM	36
ROD bids a fond farewell to Gerry Hanney	37
Seachtain na n-Innealtóirí	38
STEPS Visit to St. Raphaela's National School, Stillorgan	39
5 Minutes with Rob McCartney	40
Robert Corbally wins 'Best Presented Project Award'	
in the EFCA Future Leaders Competition	41
New Recruits	42
Hard Work Pays off for Two of Our Technicians	44
Image Gallery	45







ROD celebrates the official opening of Herring Bridge, Great Yarmouth

By Roberta Keaney



Photo of the opening of Herring Bridge, Great Yarmouth.

On 1st February 2024, Norfolk County Council celebrated the official opening of Herring Bridge in Great Yarmouth, as a convoy of traffic – and more than 200 schoolchildren on foot – made their way across the new bridge. The £121m twin leaf bascule bridge is the town's third crossing of the River Yare and enhances the port's accessibility both as an international gateway to the UK and as a major UK offshore renewable energy, oil and gas base. ROD led the detailed design of this nationally significant infrastructure project on behalf of BAM Farrans, a joint venture between BAM UK & Ireland and Farrans Construction. Our design partners were H&H, who provide global expertise in moveable bridges, and Norfolk-based architecture firm, Lanpro.

The scheme features a 50m clear span twin bascule bridge and links the A47 at Harfrey's roundabout to the port and enterprise zone on the east side of the river. The newly completed bridge carries two lanes of vehicular traffic in each direction and incorporates a footpath and a cycle way to provide pedestrians and cyclists with safe passage across the water. The scheme will transform travel across the town, connecting communities on either side of the harbour, easing traffic congestion, shortening journey times, and improving journey reliability.

ROD has been involved in the project since 2018, providing a broad range of multidisciplinary engineering services to our client, including bridge, structural, highways, geotechnical, environmental, and drainage design. We worked with multiple stakeholders across the project, and our collaborative engagement with the contractor was crucial to overcoming the many challenges this complex design and build scheme presented.

Speaking at the opening, Jim Thorpe, managing director at ROD and highways design lead for the project, commented: "This has been an incredibly rewarding project for our team at ROD, and we are delighted to have delivered a high-quality bridge that both the town and its residents can be proud of. Our extensive experience in bridges and urban highways design enabled us to deliver efficient designs with a focus on buildability and durability, and I am excited to see how transformative the new urban highway and active travel linkages will be for the community."

Aonghus O'Keeffe, director at ROD and project manager for the design team, said: "I congratulate all those involved in the successful delivery of the scheme, including BAM Farrans and their supply chain, Norfolk County Council, National Highways, and our design partners at H&H and Lanpro. We enjoyed the collaborative and dynamic culture within the project team, from tender stage in 2018 through planning, detailed design, and construction."



ROD and H&H engineering teams pictured in front of the hydraulic cylinders. (L-R): Aonghus O'Keeffe, Inês Roque Domingues, Jim Phillips, Jim Thorpe, Paul van Hagen, Paul Skelton, and Paul Mitchell. Image courtesy of Farrans Construction.



Narrow Water Bridge project moves to construction

By Daniel Coleman



An artist's impression of the proposed Narrow Water Bridge at Carlingford Lough.

On Tuesday, 4th June, senior political representatives gathered in Co. Louth to mark the commencement of construction of the Narrow Water Bridge project, a highly symbolic, cross-border infrastructure scheme. The bridge will provide a direct link between the Mourne Mountains in Co. Down and the Cooley Peninsula in Co. Louth, strengthening North-South links, deepening connections between communities on both sides of the border, and developing the wider Carlingford Lough area as a tourism destination.

An allocation of more than ≤ 102 million + VAT is being provided towards the project from the Irish Government's Shared Island Fund.

Speaking at the ground breaking ceremony, Taoiseach Simon Harris described the bridge as "a game-changer for commerce, daily life and tourism in this part of our shared island." Tánaiste Micheál Martin said the project had the potential to be a "defining, iconic symbol of the journey our country has made," while Northern Ireland's Infrastructure Minister John O'Dowd said the bridge "will serve as a vital element of cross-border active travel while facilitating greenways, mountain bike trails, walking routes and beaches in the Carlingford Lough region."

Bridge design

The bridge itself is an iconic design, with a taller, longer fixed through the construction and handover stages. southern span supported by a south leaning pylon, and a second separate smaller, shorter northern span supported by twin pylons, BAM Ireland was awarded the contract for the construction of the which can open using a rolling bascule mechanism. The south fixed Narrow Water Bridge on the 13th May 2024, and we look forward cable stayed span is 138m and northern cable-stayed rolling bascule to collaborating with them on the project. In 2023, BAM completed (opening) span is 57m. The asymmetry of the span is reflected in the construction of the ROD-AECOM-designed, award-winning the pylon heights, with the higher pylon located on the southern N26 Cloongullane Bridge over the river Moy, and are currently side of the crossing. The lower twin pylons on the northern side advancing the ROD-designed Sustainable Transport bascule bridge support the opening span. crossing of the River Suir in Waterford City.

The cable-stays are small diameter stays comprised of parallel strands with multiple layers of corrosion protection. Stay anchorages connect the cables stays to the pylon and the orthotropic steel deck. The south fixed pylon will be constructed from structural steel, consisting of an outer and inner steel skin which will be infilled with concrete ballast. Similarly, the steel pylons that support the bascule span will be infilled with concrete.

The south pylon and deck are fixed to the south abutment, forming an integral connection. The bridge will have a movement joint at the intermediate pier and at the north abutment, as required to allow the opening of the north bascule span and to accommodate bridge decks expansion and contraction.

ROD services

ROD has provided environmental assessment, planning, detailed design and construction contract procurement services for the project under an initial commission with Louth County Council that extends back to 2007. We have been supported by H&H on the moveable bridge, by OBFA Architects and JN & G Traynor & Partners on the control building, Kevin Cleary & Associates and Austin Reddy & Company. Our involvement in the project is set to continue as we have recently been appointed under a new contract for Stage 4 and 5 Consultancy Services to administer and supervise the works through the construction and handover stages.



By Paul Mitchell, Ines Domingues



Figure 1- Photograph of the bridge in the open position.

The Clyde Waterfront and Renfrew Riverside (CWRR) project in Scotland is entering a new phase as the installation of the 184m double swing bridge approaches.

The Clyde crossing is the centrepiece of the project, aimed at transforming the waterfront - connecting communities and improving access to jobs, education, hospitals, and leisure pursuits. The design-build project is being led by construction and civil engineering company, GRAHAM, with Hollandia Infra, lemants, Ramboll, Amey, Hycom Engineering, and Fairfield Control Systems amongst the other members of the project team.

The bridge superstructure, designed by H&H and ROD, allows for cyclist and pedestrian-friendly gradients on the bridge while providing a significant navigational opening. The 12.3m wide bridge deck contains two traffic lanes and two pedestrian footpaths. The double swing bridge is 130m pivot to pivot with an asymmetric or "bobtail" arrangement of 65m forward spans and 27m back spans. The steel superstructures spans are gear-driven, hydraulically powered, and open to a 110° angle. The pivots feature 6.7m-diameter slewing bearings. The forward steel superstructure is supported by cable-stays anchored to steel pylons and a counterweighted back span.

H&H / ROD commenced work on the tender design commission in 2019, followed by a negotiation phase in 2020. Most of the consultation / dialogue meetings were undertaken online when the pandemic set in. Preparing the tender design / concept / quantities during this period where we could only meet online was challenging, given that the team consisted of people based in Dublin, Belfast, Glasgow, London, Ghent, Antwerp, Rotterdam, New York and Tampa. Ensuring a fully coordinated tender design and quantities that could be developed into a detailed design was challenging but, thankfully, the close coordination and cooperation between all parties allowed detailed design to kick-off in 2021.

The bridge is being fabricated by HIJV (Hollandia – Iemants Joint Venture) with fabrication of the double swing bridge completed



Figure 2-Slewing bearings at lemants fabrication yard.

in two different steel yards. Hollandia Infra was responsible for building one of the leaves in Rotterdam, while the other leaf was built by lemants in Arendonk. The successful completion of the bridge fabrication phase required close collaboration between the project team members and the two steel fabricators to ensure that the bridge is built to specification and on schedule.

The project has now reached a crucial milestone as the first leaf has been installed in Glasgow. Both leaves were completed and cable stays stressed to 80% before transport to Glasgow. Both abutments and pivot piers have also been completed and it is expected that the second leaf will be in Glasgow by June ready for final adjustments. The installation and stressing of the cable-stays on both leaves has also been a great achievement for the whole team, as it is a testament to the successful cooperation between the team. Both leaves were stressed at different locations and in different timeframes. This meant that close coordination was necessary between all parties involved. The design of movable structures



Figure 3-Cable Installation at lemants Yard.



Figure 4-Deck Anchorage (installation).

is always a challenge in itself particularly when looking at joints between two movable parts; hence the implementation of thoroughly developed geometry control procedures was of particular importance to ensure the quality of the final product.

The cable-stays system consists of two planes of parallel strand cable-stays with a top connection to the pylon through a clevis anchorage with a gusset plate connecting it to the stiffened pylon. The bottom deck anchorage is the stressing anchorage with consoles to connect it to bridge deck. The live anchorages were designed to ensure that access could happen at deck level which facilitated the stressing procedures as well as any future maintenance.

The transport and erection of the bridge is a critical stage for the project since it involves complex operations like the transport in SPMTs, sheerleg lifting of the fully built 92m spans. A final stage of cable stressing and geometry control will be done on site to ensure full alignment between the two swing spans.



Dursey Island Cableway – extending the life of Ireland's only cable car service

By Peter King, Joe Kelly and Ines Domingues



Dursey Island Cable Car crossing the Dursey Sound

One year has passed since the reopening of Dursey Cable Car following the completion of the upgrade project that ensured the return to service of this historical structure. ROD has been involved with this project for 15 years and it has been an example of how the assessment of existing structures poses additional challenges but may also lead to very satisfying results.

Dursey Island is one a few inhabited islands off the southwest coast of Ireland. It is located at the tip of the Beara Peninsula in West Cork and separated from the mainland by a narrow stretch of water - the Dursey Sound.

The Dursey Island Cable Car is located on the Beara Peninsula and links the island with the mainland. Originally commissioned in 1969, the single car, bi-cable, reversible ropeway is Ireland's only cable car service and the only cable car in Europe that traverses open seawater. The carrier travels along two parallel stationary wire support ropes called track ropes, which are supported between stations by two steel line support structures at either end. The span between the two-line support structures is approximately 244m while the total distance between the mainland station and the island station is approximately 374m.

On the one year anniversary of the re-opening, we take some time to reflect on how the specialist assessment of existing structures can ensure the preservation of important historical infrastructure, while maintaining the safety of all users.

Cable Car History

The original 1969 towers, which had corroded over time, were replaced by support pylons in 1977. These trussed steel structures stood exposed atop a cliff overlooking the Dursey Sound for 50 years, where they were subjected to the harshest of maritime conditions, including storm force winds, driving rain and constant sea spray. Inevitably, this environment caused the deterioration of the pylons' protective paint system and widespread corrosion of the steel members and connections. In 2009, Cork County Council engaged ROD to undertake detailed health checks of the pylons, at regular intervals, by which time both structures had a distinctive red-orange tinge, from top to bottom. However, engineers who work in a maritime environment understand that shouting "replace" at the first sight of red metal can sometimes be a mistake!

Maintain and optimise are the cornerstones of Ireland's current policy on public infrastructure, and over the past 15 years, these principles informed our efforts to extend the service life of the Dursey Cableway. During this period, we developed inspection methods and sophisticated analysis techniques to demonstrate that the two towers, although heavily corroded, remained robust and had sufficient redundancy to safely extend their serviceable life- at least to the next interim inspection. This allowed the council to push out the capital cost of replacement while also giving them the opportunity to explore various options for its future.

Inspections and maintenance

ROD worked closely with the council to develop a series of safety requirements applicable to the pre-commissioning inspection, maintenance and operational inspections and checks of cableway installations designed to carry persons, including requirements relating to accident prevention and to worker protection.

Specific daily, monthly and multi-annual procedures were put in place to ensure the continued safety of the system. Additionally, information gathered through routine inspections informed the structural assessment required to ensure the installation remained fit for purpose.

Structural Assessment

ROD's involvement included a probabilistic assessment of the line support structures to facilitate determination of current safety and to map the change in safety as a function of the level of deterioration of the critical members. This allowed the development of an optimum whole life maintenance management plan based on maintaining the minimum required safety standards whilst maximising economic performance. The probabilistic assessment estimated the safety index of the structure based on different levels of deterioration at the critical elements, which, combined with repeated structure surveying and monitoring, allowed for an extension of the structure's working life.

As a historic cableway installation, current standards and regulations were not applicable, but relevant EU and Irish regulations were considered, complemented by site specific analysis where appropriate. Due to the aggressive Atlantic environment, corrosion of the line structures was one of the main obstacles to the structural safety of the system. Our multi-annual inspections therefore included a detailed assessment of the corrosion levels on the members of the line structures. This allowed our team to estimate the real capacity of these elements by taking the section losses into account. It was also observed that the corrosion levels varied throughout the structure. This was of benefit to the structural integrity of the two towers since, in general, the highest levels of corrosion were observed at the least loaded members.

Since these structures are extremely sensitive to the wind loading, site specific studies were developed based on the information received from the relevant weather stations. During the 2016 assessment, the return period for the wind load was reduced to account for the real-life expectancy of the structure. The hypotheses used in design were closely monitored by performing a comparison between the design wind speeds and the observed wind speed.

2022 Structural upgrade

Further structural assessments undertaken in the wake of Storm Barra in 2021 showed the cable car was approaching or may even have exceeded its design life. While the safe, short-term operation of the structure was made possible by introducing strict constraints on its operation, in the absence of a plan to replace the existing cable car, it was recommended that extensive works be put in place to prolong its life.



In 2022, the decision was made to close the historic cableway installation and the council engaged ROD to redesign the cable car's towers and island anchor frame to enable it to maintain the highest level of safety for passengers and ensure compliance with current international standards. The intention behind the project was that, as far as possible, a "like for like" replacement would be developed which would respect the history and aesthetics of this unique cableway installation.

Since the scope of the project required the replacement of part of the cableway system, it was envisaged that the new structures would be integrated into the existing cableway system, hence, some structural elements were to be re-used- specifically elements connecting the new structures to the existing cable way.

The decision to re-use / discard these elements was made based on the relevant codes, taking into consideration several criteria, such as: maximum codified service life, any visible wear or deformation during cable car operation or the disassembling of the system, or the results of any relevant testing and associated minimum criteria. With this in mind, the original scope was expanded to include replacement / refurbishment of additional elements such as the track ropes, cable car top frame, line structures saddles and the mainland whittle tree.

Construction on the €1.2 million upgrade project began in July 2022, with TLI Group Ltd, experts in building similar towers and tensioned cables, as contractor. Close cooperation between the council, ROD and TLI Group Ltd. allowed for effective communication and problem-solving throughout the project, which was completed successfully in early 2024. Given the historical and social importance of the Dursey Island Cable Car, the project team was delighted to safeguard the cable car for future generations.



Bridge Aerodynamics

By Marko Duranovic





As wind can pose a significant challenge to the structural integrity of bridges, understanding its effects is crucial to ensuring their safety and longevity. Static wind loads are a concern for stiff and heavy bridges while dynamic wind loads are a limiting issue for lighter and more flexible designs. The Tacoma Narrows Bridge collapse in 1940 - which occurred at a relatively low wind speed - provides one of the most famous examples of the adverse effects of wind on bridge structures. The collapse occurred due to large deck motion caused by the wind action. Although this was a known phenomenon at the time, it had not been widely researched. Since then, major bridge design standards have been developed to deal with wind loading, and these standards are constantly being modernised.

While wind tunnel tests are an essential part of most long-span bridge designs, they can have a significant impact on both the project timeline and costs. However, by knowing what to expect from the results of these tests, engineers can reduce the time spent on their execution. While computational fluid dynamics (CFD) has been used in bridge engineering for over a decade, it is not routinely used in design. Furthermore, most of the published work in this field deals with streamlined bridge deck sections while bluff decks (i.e., aerodynamically more complex sections) have received little attention.

In August 2020, I shared my plan of undertaking an industrial research PhD in bridge aerodynamics at Trinity College Dublin with ROD's management team. Recognising the value to the company of my gaining more expertise in the area, ROD agreed to co fund my research with the Irish Research Council, and I began my studies at TCD the following month.



Figure 2 - Vortex shedding process behind a bridge deck.



Over the next four years, my work primarily dealt with vortexinduced vibrations (VIV) of bluff bridge decks. A simplified schematic of the VIV process behind a bridge deck is shown in Figure 1. The first part of the research explored the level of accuracy and practical applicability of computational models built in commercial CFD software when applied in the bridge design industry. An example of CFD results available to bridge engineers is provided in Figure 2. In the second part of the research, the effect of the changing deck geometry on the VIV response was studied, with the aim of instigating further development of the design standards.

ROD's work on the design of the Northern Spire Bridge in Sunderland, the Clyde Crossing Swing Bridge in Glasgow and the Narrow Water Bridge in Co. Louth gave me access to wind tunnel test results on cable-stayed bridges, data which proved hugely valuable to me during my studies. Figure 3 shows an example of the full aeroelastic test conducted on Narrow Water Bridge models in early 2022.

Combining academic and industrial research within a PhD is somewhat unusual, particularly within civil engineering. By targeting the gaps in the tools available to engineers, this type of research can more readily influence the development of new technologies and approaches within the industry.

I was delighted to complete my studies in June 2024, and I am looking forward to applying my newly acquired knowledge on future cable-stayed bridge projects at ROD. *This research was funded by the Irish Research Council under grant number EBPPG/2020/96 and Roughan & O'Donovan Consulting Engineers.



Corporation Bridge, Grimsby

By Peter Campbell



Corporation Bridge in Grimsby, UK.

ROD is supporting Spencer Bridge Engineering Ltd, one of the UK's largest privately-owned multidisciplinary engineering companies, in carrying out refurbishment works to Corporation Bridge- a Grade II listed, six-span bridge that crosses the River Freshney in Grimsby, Lincolnshire. Constructed in 1925, the bridge is of early steel rivetted construction and incorporates a rolling bascule "Scherzer" moving span. The refurbishment project includes inspections and assessments; steelwork repairs; deck replacement design; and several design studies for the client, North East Lincolnshire Council (NELC).

Our bridge team in Leeds has adopted a responsive and pragmatic approach to the delivery of the project, attending site on a regular basis and engaging with wider stakeholders as necessary. We scheduled our inspections to work around the tidal levels at the bridge and made good use of underdeck scaffolding, a boat and waders to complete our tasks.

Our responsibilities include:

- Review and interpretation of historical information;
- Design study to understand the live load capacity of the refurbished bridge;
- Inspection for assessment;
- Assessment of as-constructed capacity and sensitivity to corrosion and deterioration;
- Steelwork repair principles, designs and specification;
- Cat. 3 Checker procurement and management; and
- Design studies and reporting.

Our assessment works include an analysis of typical repair details to determine where the existing structure has sufficient capacity and where repairs are needed. We are currently focused on the design of a replacement deck to the lifting span, the design of replacement concrete decks to the rest of the bridge and further steelwork repairs.



Waterford City Public Infrastructure Project: the importance of site experience to a graduate engineer

By Roberta Keaney



Graduate Engineer, Oliver Scales, pictured in front of the Waterford City Public Infrastructure project site in March 2024.

When Oliver Scales was offered the opportunity to join the project team on the Waterford City Public Infrastructure Project, he did not need to be asked twice. "All young engineers at ROD are encouraged to take on a site role during the graduate programme because seeing a piece of infrastructure being built from the ground up rather than as a drawing or a set of calculations- goes a long way to developing a well-rounded engineer."

The Waterford City Public Infrastructure Project is Ireland's largest urban regeneration project. It comprises a major multimodal, sustainable transport interchange hub; a 207m long pedestrian and cycle bridge across the River Suir (the Sustainable Transport Bridge); 1.3km of urban dual carriageway and local road upgrades; 1km of flood defences; and a large public plaza.

For any young engineer not long out of university, the role of Assistant Resident Engineer on such a complex scheme would have been a big undertaking, but not for Oliver. He was confident the experience he had accrued during his first two years with ROD would stand to him. "I learned a lot during my time with the transportation, bridges and water teams in the Leeds office, and I was ready for the challenge."

Oliver was tasked with maintaining a clear view of progress on three core elements of the project: the access infrastructure scheme, the sustainable transport bridge and the transport interchange hub. His primary duties focused on keeping track of the work onsite, including the labour and plant required to complete each activity. This involved taking over 7,500 photos of the works and summarising this information in weekly reports.

Oliver was also involved in reviewing the contractor's programme, including comparing the as-built dates against the programme dates, as well as ensuring that the contractor carried out all the inspections and testing specified in the contract. "From time to time, I walked parts of the site with the client, answering their questions on the work being carried out. This was something I enjoyed because it helped me to see the project from their unique perspective."

Working on the Sustainable Transport Bridge gave Oliver the opportunity to see a bridge being built from the very early stages, literally coming up out of the river, and exposure to elements of a bridge scheme that were relatively new to him, including piling and cofferdams. The biggest revelation was the constructability aspect of the project. "I always had a keen interest in bridges, but I never fully considered how bridges were constructed - my thinking was limited more to the design calculations. Going forward, I will be spending a lot more time asking myself whether it is feasible to build a bridge in a certain way or if it can be safely built."

The transport interchange hub gave Oliver his first taste of working on a building project and he saw first-hand the different challenges involved in managing the delivery of a two-storey building scheme incorporating a bus-set down area and short-term parking facilities. The access infrastructure scheme helped Oliver to appreciate the

unique, technical challenges that smaller structures can present for engineers and why such structures need to be treated with the same level of respect as high-profile, statement bridges. He also learned more about road engineering - something he was keen to develop as he had no experience in the area before joining the company. "Spending time onsite gives you a much deeper appreciation for the different elements of road design, including drainage and ducting, pavements and earthworks, more than you could ever hope to get in a design office."

When he joined ROD, Oliver's engineering knowledge was largely limited to the structural design calculations he had learned at university. He has since been able to apply this knowledge to reallife projects, while learning about the design of highways, how multidisciplinary teams operate, and how contract documents are put together and their implications on site. With his sevenmonth site rotation in Waterford now complete, Oliver is already thinking of the next step in his career-becoming chartered. "I have gained a lot of experience in my short time with ROD - both in the design office and on site – and I want to keep pushing forward. My colleagues in Leeds are very supportive, and I know they are keen to ensure my career stays on track."



and design of a wide range of structures, pile design, application ROD is pleased to announce the appointment of Daniel Coleman of new materials, whole life costing, environmental mitigation and and Deirdre Neff as Associates of the company. the preparation of contract documents. In addition to undertaking Deirdre joined ROD in 2011, having previously worked as a the role of Resident Engineer and quality assurance lead on site, he has been responsible for the coordination of CEEQUAL evidence on key projects. In 2021, Daniel assumed the role of Continuing Professional Development (CPD) Manager, reporting to Ed Warren as CPD Director. His primary discipline is structural engineering, and he holds the position of Honorary Secretary of the Institution of Structural Engineers (IStructE) Republic of Ireland Group.

graduate engineer at Arup and Moylan. Since that time, Deirdre has demonstrated her enthusiasm and attention to detail across a wide range of roles and disciplines, including drainage, earthworks, pavements, traffic impact assessment, collision analysis, traffic and junction modelling, traffic signals, constraints studies, route selection, detailed design, contract documents and as a Resident Engineer on the North Wall Avenue site. She has championed sustainable transport provision for many years, not just through her project work but by leading our many Smarter Travel Workplace awards and encouraging staff to walk, cycle, carpool and avail of public transport, all of which have contributed to positioning ROD ahead of the curve in active travel.

Since joining ROD as a graduate in 2012, Daniel has developed his expertise across a range of discipline areas, including drainage surveys, route selection studies, pavement and drainage design, structural inspections, structural modelling





Lifting precast beams into place at Structure 19 as part of the Access Infrastructure works.

ROD appoints two new Associates



Deirde Neff



Daniel Coleman



Significant Progress made on Waterford City's North Quays Public Infrastructure Project

By Christian Smith



Main Contract – Ongoing construction in June 2024 of the Sustainable Transport Bridge substructure and Public Plaza on Meagher's Quay

In the 12 months since the first sod was turned on the Waterford North Quays Public Infrastructure Project by then Taoiseach, Leo Varadkar TD, BAM Ireland has made considerable progress on the construction of the infrastructure required to enable the development of the North Quays strategic development zone (SDZ) site. This has been made possible by the significant advanced works contracts developed by the client's team to de-risk the project and reduce the level of traffic disruption in Waterford City during the main contract works.

Advanced work contracts

Eight advanced works contracts, with a total construction value of circa $\notin 17m$, were procured. The contracts comprised demolition; utilities diversions at the most congested locations along the city's Dock Road and Meagher's Quay; site works, such as the stabilisation of 400m of railway rock cutting at Plunkett Railway Station (construction value $\notin 4m$) and a foul and surface water pumping station at Ferrybank (construction value $\notin 7m$). Enabling

works commenced in mid-2020, with the final and most substantial element, the pumping station, completed in May 2024, giving full control of the site to BAM until project completion circa Q2 2026.

Main contract works

With the first year of the three-year build programme now complete, work has begun on all elements of the main contract works. Construction activity stretches along the full 1km length of the northern front of the eight-hectare North Quays SDZ site in Ferrybank and across the adjoining 200m wide expanse of the River Suir and adjacent southern quays, where the major river crossing will connect to the city at Meagher's Quay.

Dual carriageway and local road upgrades

1.3km of urban dual carriageway and local road upgrades on Dock Road and Abbey Road have progressed, with traffic lane reconfiguration works on the Dock Road westbound carriageway ongoing along with the significant earthworks required to the



realigned Abbey Road. Construction works are ongoing on two greenway underpasses, two railway overbridges at both the east and west SDZ site access points and the 500m of retaining wall structures required along the realigned Abbey Road. Extensive traffic management coordination is required to facilitate the high traffic volumes on the local road network (Dock Road AADT 16,000 vehicles) and the ongoing construction to ensure continued access to the Bus Éireann depot, businesses and educational facilities. This section of the works is expected to be completed in mid-2025.

Transport hub

The substructure for the major multimodal, sustainable transport interchange hub that is central to the northern edge of the SDZ site is now complete. Works are ongoing to complete the superstructure, which includes a train station building, two railway pedestrian overbridges at either end of the hub and 200m long platforms on either side a new twin-track railway configuration through the new station. The completion of this major piece of public infrastructure is anticipated in Q4 2025, with commissioning of the station expected in 2026.

Sustainable Transport Bridge

The substructure for the Sustainable Transport Bridge, a 207m long pedestrian and cycle opening (bascule) bridge across the River Suir, is nearing completion. The piles for each of the six in-river pier and abutment supports have been installed, and works are ongoing on the concrete pile caps, piers and abutments. Fabrication of the steel superstructure is progressing offsite at Victor Buyck Steel Construction's yard in Ghent, Belgium. The majority of the steelwork deck is now complete, and preparations are underway for painting and installation of the bridge movable span mechanical, electrical and control components. The erection on the completed superstructure is anticipated to take place in Q1 2025, following the transportation of the bridge by sea-going barge from Ghent via the English Channel and Irish Sea.

Public plaza

The 5,000m² public plaza on the southern approach to the bridge is well progressed, with the new 100m long sheet pile wall installed, and the pile supported slab required to support the plaza construction ongoing. Works will be ongoing in 2024, with completion anticipated in mid-2025.

Conclusion

Sustainable urban regeneration opens up cities in the most positive way, providing immense opportunities and possibilities to those who live and work there. This project will change the way people view Waterford City, with improved, high-quality transport infrastructure, as well as pedestrian and cycling facilities, making it easier for people to navigate the city. It will also unlock the growth potential of the city through the development of office space, residential, retail and hotel accommodation on the SDZ site.

The works represent one of the largest ever investments in Waterford and the southeast region, with a total public investment of ≤ 207 m, including ≤ 100 m of Urban Regeneration and Development Fund (URDF) funding and a further ≤ 70 m from the Department of Transport through the National Transport Authority (NTA).

Flood defences

ROD has been commissioned by Waterford City and County Council to carry out technical consultancy services for an integrated flood defence system along approximately 2.1km of railway at Waterford city's north quays. The site extends around Plunkett Station, where extensive flooding occured on several occasions over the past 15 years. The tidal River Suir floods the railway lands by overtopping or penetrating the existing quay walls, which are inadequate in height and in poor repair. The flood water typically flows down the tracks to the station platforms, causing suspension of passenger rail services, disruption to commuters' travel plans and loss of business to city centre retail businesses.

The integrated flood defence system comprises:

- Approximately 750m of steel sheet pile walls to the west of plunkett station;
- Circa 350m of underground flood defence trenches;
- Local raising of existing boundary walls in the vicinity of plunkett station;
- Approximately 670m of steel sheet pile walls to the east of plunkett station;
- Trackside drainage work; and
- Pumping stations.

BAM Ireland has been engaged to carry out some initial site investigation works, including groundwater monitoring for the flood defence project. The detailed design stage for the sheet pile flood defence walls, underground trenches, concrete elements and drainage works is ongoing. We have engaged specialist subconsultants Nicholas O Dwyer Consulting Engineers to progress the design of the pumping stations.

When complete, the integrated flood defence system will allow the installation of signal, electrical and telecoms (SET) works by Irish Rail and the commissioning of the new transport hub train station.



Planning Approval granted for Ballymun Finglas Core Bus Corridor

By Seamus MacGearailt

In March 2024, An Bord Pleanála approved the Planning Consent and Compulsory Purchase Order (CPO) for the Ballymun/Finglas to City Centre Core Bus Corridor (CBC) Scheme. It is the fourth of a total twelve BusConnects CBC schemes in the Dublin region to receive planning approval. The project was designed by ROD in joint venture with TYPSA under the direction of the National Transport Authority (NTA).

The proposed scheme was submitted for consent to An Bord Pleanála in summer 2022. Rather than hold an Oral Hearing. the board invited the NTA to provide written responses to the submissions received from the general public and to the objections to the CPO. The NTA submitted its responses in spring 2023, and An Bord approved the scheme a year later.

The CBC extends for 11km from the suburbs of Ballymun and Finglas on the northern side of the city (the two routes joining at Phibsborough), and then continues southwards to the Four Courts area on the western side of Dublin City Centre. Providing continuous bus priority over the full length of the two routes represents a major upgrade to the existing discontinuous bus lanes along half of the length. St. Mobhi Road in Glasnevin / Drumcondra presents a particular challenge because the road is narrow with mature street trees. Rather than widening this road in both directions for bus lanes, which would have required the felling of trees, a bus gate will be provided in the northbound direction to divert through traffic onto other routes in the evening peak period, and therefore saving the trees.

Separate segregated cycle tracks will be provided over the length of the routes, bypassing the busy and intimidating traffic gyratories at Griffith Avenue and Hart's Corner. The street is too narrow through Phibsborough for separate cycle tracks, so an alternative cycle route will run from the Royal Canal a short distance east of Phibsborough Road along the former canal line to Broadstone. Protected cycle lanes will be provided through all junctions, ensuring greater safety from turning traffic for cyclists.

Four new bridges will be required along the cycle route in Phibsborough, including two over railways, one over the Royal Canal and another under North Circular Road at Phibsborough Library.

Public realm improvements will be provided at several key locations along the route. The most significant of these interventions will be in Ballymun town centre, where Main Street will be narrowed through the removal of one traffic lane in each direction to accommodate cycle tracks, new street trees and indented parking



CGI street rendering. Image courtesy of Model Works.



bays. The narrower road through the town centre will improve the

sense of place for pedestrians and local people in the redeveloped urban area. Coincidentally, ROD has worked on several public housing schemes in the area for Dublin City Council.

Following on from our successful collaboration on BusConnects Dublin, ROD and TYPSA are currently working together on BusConnects Cork, designing the Ballincollig to City Centre, Bishopstown to City Centre and Togher to City Centre Sustainable Transport Corridors.



in Co. Donegal

By Gerard Ward



Official opening of the N56 Dungloe to Glenties Road Project (L-R): John McLaughlin (Chief Executive of Donegal County Council), Councillor Gerry McMonagle Minister of State Jack Chambers, Councillor Michael McClafferty, Image courtesy of Clive Watson Photography.

On Thursday 25th April 2024, Minister of State with responsibility for Road Safety Jack Chambers TD officially opened the N56 An Clochán Liath (Dungloe) to Glenties Road Project in Co. Donegal. The project represents an investment of more than €100M in improving approximately 27km of the N56 road and includes a segregated 2.5m wide shared footway and cycle track between the towns of Dungloe and Glenties. The opening of the upgraded road confines to history several notorious sections of the N56, including the Gaoth Beara and Mín an Chairn bends, a welcome development for the large number of locals who had gathered in the spring sunshine to watch the event. The smoother road will also improve the visitor experience in the region, opening up stunning views over Béal an Bheara (Gweebarra Bay) for tourists travelling the Wild Atlantic Way.

The scheme was developed by Donegal County Council as part of a TII pilot project to upgrade low traffic volume, bog rampart roads along the west coast of Ireland. It has significantly improved the existing poor-quality road network despite the challenging topographical, geological, and environmental constraints in the region. The project was delivered in five phases over 10 years, with

Upgraded section of N56 officially opened

- the final section on the south side of Glenties town expected to progress to construction later this year.
- ROD has been supporting Donegal County Council and Donegal National Roads Office in the delivery of this project since 2010. We provided detailed design, contract administration and site supervision services on the Cloghbolie to Boyoughter section (Phase 1) and environmental services on the Boyoughter to Kilkenny section (Phase 2). We also provided contract administration and site supervision services on the Letterilly to Kilraine section on the northern side of Glenties town (Phase 5A). Our work on the latter section involved the use of innovative geotechnical construction solutions, including the staged construction of large embankments on very soft peat soils, to mitigate the risk to sensitive environmental receptors. The project was shortlisted for 'International Project of the Year' at the Ground Engineering Awards 2023.
- ROD-AECOM is currently providing engineering services to the council on the Letterilly to Kilraine section, south of Glenties town (Phase 5B). We previously completed a due diligence review of the draft tender documents and managed the tender phase. Construction works on the route are expected to begin this summer.



EU Connected Vehicle Technology Pilot launched

By Cliona Rogan



Trial of new connected vehicle technology launched.

On Thursday 1st February 2024, Minister of State with special responsibility for Road Safety Jack Chambers TD launched a pilot programme to test the potential of connected vehicle technology to safeguard Ireland's roads. Cooperative Intelligent Transport Systems (C-ITS) technology will enable operators based in the State's motorway operations control centre to send safety alerts to drivers in real time. The alerts will be sent through smartphone apps connected to the mobile phone network or through tablets connected to roadside units installed on the motorways. The devices will display messages relating to collisions, congestion, stationary vehicles, roadworks and hazardous weather. They will also identify electric vehicle (EV) charging points in the vicinity of the driver.

TII is delivering the pilot on behalf of the Department of Transport. ROD-AECOM is supporting its implementation – across approximately 355 kilometres of motorway network on the M1, M50, M7 and M8 motorways- as part of the enhancing Motorway Operations Services (eMOS) programme. The pilot is part of a €10m investment, with half the funding provided by the EU and half provided by the State. It forms part of the C-Roads Platform, a

joint initiative of 18 EU member states and road operators aimed at harmonising the standards for the implementation and deployment of C-ITS on European roads.

Speaking at the launch event, Minister Chambers invited 1,500 drivers to participate in the on-road pilot project, saying: "The value of this technology is that it empowers motorists to make realtime decisions so they can better plan their journey to avoid things like road collisions, broken down vehicles causing obstruction or congestion and ultimately improve road safety for all road users." Peter Walsh, Chief Executive of TII, said: "This EU pilot programme is a significant research opportunity in learning how the use of intelligent transportation systems will assist both the road user and road operator to improve overall road safety. The public involvement with this research programme will assist greatly in creating a safer road user environment for the future."

With 1,200+ members of the public participating in the pilot, TII is already receiving valuable feedback to support their evaluation of the new technology. If you are interested in participating in the pilot, there is still time. Simply log on to cits.tii.ie and complete a short survey. The pilot will run until the end of 2024.



Green light given for Ringsend Library and Public Realm Refurbishment

By Eoin O Catháin



CGI Images courtesy of DMOD architects, proposed view of Ringsend Library.

ROD is pleased to announce that the Part 8 planning submission for the Ringsend Library and Public Realm refurbishment project has been approved by Dublin City Council and the project will now proceed to detailed design and construction. The planning stage of the project was led by Mitchell + Associates, with ROD serving as the civil and structural engineer. The other members of the design team include DMOD Architects; Currie & Brown (QS); JV Tierney & Co. (M&E); and Fergal McGirl Conservation Architects.

The proposed development comprises a public realm development for Library Square, a proposed extension of the library building itself, and enhancements to the public realm, including road realignment, the introduction of a raised table to control traffic flow speeds with controlled pedestrian crossing, cycle lane, shared surface plaza, defensive planting, communal seating and feature lighting. The project forms part of the Ringsend Irishtown Local Environmental Improvement Plan, which seeks to revitalise the pedestrian experience in Ringsend Village by slowing traffic, resolving level anomalies, removing existing barriers and establishing a direct pedestrian connection between Library Square and Ringsend Park. ROD is delighted to have been involved in this project, particularly given the vital role libraries serve in both the community and society - providing a place for people to go not only to find books, information and internet access, but also to play, meet up and keep warm.



Existing view of Ringsend Library.



CGI Images courtesy of DMOD architects, proposed view of Ringsend Library.

ROD Research at Transport Research Arena 2024

By Cliona Rogan

In April, Europe's largest transport research and innovation conference, Transport Research Arena (TRA) 2024, came to Dublin to explore the theme of 'Transport Transitions: Advancing Sustainable and Inclusive Mobility'. The four-day event was attended by over 4,500 researchers, policymakers and industry representatives who came together to discuss how research and innovation can reshape our transport and mobility system. It was the largest conference in TRA's 18-year history and the first to be hosted in Ireland. The organisers did a great job of promoting Ireland and Irish culture over the course of the event, from the opening ceremony, which featured Irish dancing and a wonderful rendition of 'Danny Boy' by the distinctive Irish vocal ensemble, Anúna, through to the conference dinner in the Guinness storehouse, which ended with a spirited performance by a U2 tribute act in the Gravity Bar.

Taoiseach Simon Harris, Minister for Transport Eamon Ryan, and Minister of State at the Department of Transport Jack Chambers attended the event, sharing their insights into what the future of transport could look like, what is working well currently, and what can be improved. The event provided an ideal platform for ROD to showcase our continued commitment to research, with team members delivering high quality technical and poster presentations, disseminating our latest research results, and engaging with other leaders in the field of transportation.

ROD Director Aonghus O'Keeffe presented a poster showcasing the potential benefits of adopting the latest Linked Data and Semantic Web technologies to manage information for a network of power and communications cables. Storing asset data in a structured and machine-readable way can make it much more straightforward for software systems to query, validate and visualise complex data sets. ROD Associate Paul Kissane presented a poster outlining opportunities to rehabilitate peatlands through transportation projects. Paul's research is examining how appropriate peatland rehabilitation measures can have beneficial impacts on carbon savings for transportation projects and can promote biodiversity gains. This research was particularly pertinent at the TRA conference because €600k of the income generated from the conference has been set aside to contribute to the remediation of 100 hectares of peatland in Wicklow.

Senior Engineer Robert Corbally delivered two technical presentations detailing ROD's use of advanced data analytics as part of Transport Infrastructure Ireland's enhancing Motorway Operations Services (eMOS) programme. The first presentation focused on the development of data-driven congestion alerts that can predict typical congestion patterns on the M50 motorway and



Jack Kavanagh delivering the opening keynote speech at TRA Dublin.

assist control centre operators in displaying variable speed limits that can delay the onset of congestion and help manage traffic. These alerts have been integrated into the daily operations at the Motorway Operations Control Centre. The second presentation outlined how ROD is leveraging large-scale data collected from multiple sources to quantify the benefits of variable speed limits on the M50. Robert also presented results from his academic research - undertaken with UCD - into the use of in-vehicle sensors and machine learning techniques to detect damage in bridges.

One of the more memorable take-aways from the conference came from Jack Kavanagh, who described the many challenges he faces in accessing public transport as a wheelchair user. He pleaded with the audience of policy makers, academics, and designers to make transport systems more inclusive for those with mobility issues or visual impairments, noting that each of us possesses 'small keys' which have the potential to open 'big doors', and highlighting the major impact our design decisions have on peoples' everyday lives. Jack's speech underscored the importance of ROD's work on inclusive design, as demonstrated in the delivery of the Wayfinding Centre in Dublin, a first-of-its kind training facility focused on making public transport more accessible to people with disabilities.



Peatland Rehabilitation Presentation at TRA 2024

Paul Kissane



Paul Kissane pictured taking AECOM's Eoin Greene and John Holmes through various aspects of his poster at the TRA Conference in Dublin.aspects of the poster.

On Monday, the 15th April, ROD Associate Paul Kissane led the delivery of a paper, poster and flash presentation exploring the opportunities to rehabilitate peatlands as part of transportation projects at the Transport Research Arena conference in the RDS Dublin. His aim was to demonstrate how, with the right conditions in hydrogeology/hydrology at infrastructure earthworks, peat drying out or degrading can be avoided - particularly at peat deposition areas. Where peat is already drying out, the earthworks for projects can potentially provide net benefits, reducing carbon emissions and improving biodiversity.

Paul is currently leading a peatland rehabilitation research project on behalf of TII, the objective of which is to provide a new technical guidance document for assessing - from the perspective of a wetland's long-term carbon sequestration capabilities – future interactions between national roads, greenways, motorway service areas and the landscapes adjacent to them. Paul is being supported by a team of specialists drawn from ROD's geotechnical, water and environmental teams, Arup, Wetlands Survey Ireland and lecturers/ academic researchers from Atlantic Technological University (ATU), University College Dublin (UCD) and Trinity College Dublin (TCD). Adopting a multidisciplinary approach to the delivery of the project has enabled the links between the water regime, ecology and carbon to be fully ingrained in the guidance, which has been under development since September 2022. According to the National Peatlands Strategy, only 10% of the original raised bog and 28% of the original blanket peatland resources are suitable for conservation as natural peatlands. Vast areas of peat are therefore of degraded status and likely emitting carbon. As a wetland ecosystem, peatlands are dependent on the maintenance of near water-logged conditions. The drainage or drying out of peatlands leads to changes in flora and fauna, with wetland species being replaced by those more suited to drier habitats. This degradation typically damages the important acrotelm layer, resulting in organic decomposition of sequestered carbon when exposed to air over longer periods of time.

Water table and surface runoff conditions are fundamental in rewetting peatland areas to nurture sphagnum (moss) growth. By maintaining higher water levels in proximity to road or greenway developments, we not only support the better growth of key species, but we can also be sympathetic to degraded peatlands. Restoration can vary from minor works, such as blocking drains, to major rehabilitation works, with earthworks and acute detailing of site drainage amendments or planting requirements. Paradoxically, the research has indicated that, in some cases, it may be better for both carbon and biodiversity for degrading peat to be removed and replaced as part of the delivery of infrastructure projects.



ROD appointed to Active Travel Project in Roscommon

By Sharath Jayaramu



With the construction of the N5 Ballaghaderreen to Scramoge Road underway, Roscommon County Council is developing plans to re-purpose the existing N5 national route, which will be reclassified as a regional/local road. ROD is delighted to have been appointed to develop an active travel initiative for the N5 Tulsk to Rathcroghan route and the urban streets through Frenchpark, Bellanagare and Tulsk. The project aims to create a safe and dedicated space for cyclists and pedestrians to access local facilities in the villages along the route and will connect the Rathcroghan Visitor Centre, which is located within the Rathcroghan Archaeological complex - a candidate UNESCO World Heritage Site - to the archaeological heritage features surrounding it.

ROD is committed to delivering an exemplar project that prioritises safety, sustainability and respect for the unique cultural heritage of County Roscommon. By conducting thorough environmental assessments, we will create a solution that addresses the needs of the community, safeguards the archaeological treasures of the Rathcroghan Archaeological complex, and secures a more sustainable future for the county. The project is divided into two groups, each with its own distinct development phases:

Group 1: N5 Active Travel Frenchpark, N5 Active Travel Bellanagare and Tulsk

Group 2: Tulsk to Rathcroghan

The Group 1 scheme will create sustainable travel infrastructure for pedestrians and cyclists along the existing road network, where the mandatory speed limit in rural areas will be reduced from 100km/h to 80km/h. As the main streets within the villages are currently heavily trafficked with narrow pedestrian paths on both sides of the road, walking and cycling are unattractive options, and the car is the most used form of transport for local trips.

While the scheme aims to use existing road space where possible, adhering to design guidelines, such as TII standards, the Design Manual for Urban Roads and Streets (DMURS) and the Cycle Design Manual, will increase the likelihood of some land acquisition becoming necessary along certain sections of the development.

Group 1 scheme: Bellanagare



Bellanagare hard shoulders parking is to be rearranged to encourage active travel.

Group 1 scheme: Frenchpark



Frenchpark Main Street currently discourages active travel.

The Group 2 scheme (Tulsk to Rathcroghan) is located in the rural fringe, where the default speed limit of 80 km/h applies. The study area extends over approximately 5.2km, starting in Tulsk village and continuing largely alongside the existing N5 towards the Rathcroghan Mound National Monument and onwards to Rathmore National Monument. The project area holds immense archaeological significance, with the Rathcroghan landscape encompassing over 240 archaeological sites, 60 of which are designated as national monuments. These monuments are scattered across a vast area of roughly 6.5 km² and include enclosures, barrows, mounds, pillar stones, ancient trackways, townland boundaries, field systems, and the unique pit fields characteristic of the region.

There is no existing dedicated infrastructure for pedestrians and cyclists travelling between Tulsk and the Rathcroghan Archaeological Complex. The majority of visitors travel in private vehicles to access the site, which means they cannot experience the archaeological landscape to the full, and they are also contributing to environmental emissions. The route has also witnessed a fatal collision, two serious incidents and multiple minor collisions.

This project directly addresses these issues by providing a safe and dedicated route for cyclists and pedestrians, promoting a shift towards sustainable transportation for tourist and leisure purposes and reducing reliance on private cars. This, in turn, will

Group 1 scheme: Tulsk

Tulsk, home to the Rathcroghan Visitor's Centre.

Group 2 scheme: Tulsk to Rathcroghan

Tulsk to Rathcroghan, with the site of Queen Maeve's Palace on the right.

lead to a lowering of greenhouse gas emissions, thereby aligning with the objectives outlined in the National Sustainable Mobility Policy. Moreover, it will enhance accessibility to the Rathcroghan Archaeological Complex, giving visitors a deeper appreciation of the rich heritage of the county.

During the development process, the project team will give careful consideration to the potential project constraints including:

- Environmental considerations: Designated sites, archaeological features and cultural heritage throughout the route demand meticulous attention to ensure the project protects these sensitive areas;
- Utility infrastructure: Existing utility lines may need to be relocated to accommodate the new path. The project team will map these utilities and incorporate their presence into the design phase; and
- Land acquisition: Due to the narrow cross-section of the existing N5 through the section under consideration, land acquisition from adjacent properties is likely to be necessary for some sections of the project. ROD will explore all options to minimise the impact on surrounding properties while fulfilling the project's requirements and protecting the environment.



A6 Dungiven to Drumahoe Dualling scheme wins BREEAM Infrastructure Award

By Roberta Keaney



Image courtesy of Sacyr, Wills Bros Ltd, Somague.

ROD is delighted to announce the A6 Dungiven to Drumahoe Dualling scheme in Northern Ireland has been awarded a BREEAM (Building Research Establishment Environmental Assessment Methodology) Infrastructure 'Excellent Whole Project Award', with an exceptionally high score of 89.8%. The award recognises the design team's commitment to meeting the highest standards of sustainability on the project and to safeguarding the environment for the local community.

Commenting on the award, ROD Director Marc Jones said: Our core project values on the A6 scheme were the delivery of a sustainable infrastructure solution and mitigation of environmental impact. Our design maximised the sustainable reuse of locally won materials and included provision of fish passable culverts, river enhancement works, ecological SuDs ponds, a landscape design to cater for bats, screening for local communities, mammal underpasses, and over half a million wildflowers, trees and shrubs.

ROD Associate Martin Brown added: Low noise surfacing was developed for the pavement design, using a performance foundation that maximised the use of locally won material while providing significant carbon saving by reducing haulage trips, minimising the impact on local communities and the environment.



Engineering Project of the Year Award win for N26 Cloongullane Realignment

By Edward Warren

ROD offers our warmest congratulations to BAM on winning the prestigious Engineering Project of the Year Award at the Irish Building & Design Awards (IBDA) Awards 2024. The award recognises the company's excellent work on the N26 Cloongullane Realignment in Co. Mayo, a critical infrastructure project designed to provide significant long-term safety benefits for all road users on the N26. ROD was delighted to have collaborated with BAM, Mayo County Council and AECOM in the delivery of this important project. The award is reflective of the whole team's hard work and dedication in bringing the project through the various stages from design to planning, construction and completion.

The Realignment of the N26 at Cloongullane near Swinford, County Mayo, is an important transport infrastructure project for the West of Ireland. In addition to providing safety benefits for road users and improving access from east Mayo to the north of the county, it promotes sustainable industrial, economic, and tourism development by improving the road connection between Ballina and the Midlands and Dublin Gateways. The road development includes 1.8km of Type 2 single carriageway road; an 83m clear span steel composite bridge over the River Moy Special Area of Conservation (SAC); two new culverts over tributaries of the River Moy; local road realignments; and facilities for cyclists and pedestrians on sections of the existing N26 road and the realigned road. ROD also prepared the Environmental Impact Assessment Report, the AA Screening and Natura Impact Statement (NIS) for the application to An Bord Pleanála. The scheme was approved in December 2018.



N26 Cloongullane Realignment wins at IBDA Awards 2024. Image courtesy of IBDA.



First Public Consultation opens for N81 Route Improvements

By Rebecca Bailey



Pictured second in on the left; ROD's John Ahern and Claire Cable presenting the proposed scheme at the Public Consultation.

The first in-person, non-statutory public consultation for the N81 Route Improvements took place in Baltinglass, County Wicklow, last March. The scheme comprises the N81 Whitestown Lower (Section 1) Project and the N81 Hangman's Bend Scheme and Tuckmill (Section 2) Project. The two projects aim to address road deficiencies contributing to the poor road safety record on two sections of the N81 over the last 15 years, from the Castleruddery Junction to the south to the Ballylion Junction to the north and from Raheen Junction to the south to Hangman's Bend to the north. The scheme is being advanced by Wicklow County Council in conjunction with Kildare National Roads Office, Transport Infrastructure Ireland (TII) and the Department of Transport.

As lead consultant on the scheme, ROD is progressing the two sections from Phase 2 to 4 of PMGs i.e. from consideration of options, including on-line and off-line options, and selection of preferred improvement options, through to statutory processes and detailed design. A constraints study has been undertaken to identify the factors that will influence the location and design of the project. These include the River Slaney Special Area of Conservation (SAC); Eldon Bridge; the many cultural heritage sites in the vicinity of the scheme; homeowners; landowners; and local businesses.

A well-attended public consultation

Representatives from Kildare National Roads Office and Wicklow County Council joined our project team at the public consultation to discuss the project objectives, answer queries and give the local community an opportunity to voice any concerns or identify potential opportunities. The route options for each location were displayed at the event together with the key constraints identified within each of the study areas, including features of ecological and cultural heritage.

The event was well attended, with landowners playing a crucial role in discussions by sharing their perspectives on the positive and negative aspects of the scheme. The feedback gathered at the event is currently being reviewed by our project team. The submissions received will inform the selection of a preferred route corridor, with a commitment from the project team to minimise any adverse impacts on the environment and on local communities. Each of the options progressing to the next stage of the process will be subject to the seven assessment criteria in accordance with the Transport Appraisal Framework (TAF).

The Option Selection Phase, Phase 2 of the PMGs, is expected to conclude towards the end of 2024.



Completion of Wayfinding Centre

By Andrew Thomson



The Wayfinding Centre, a training facility focused on making public transport more accessible to people with disabilities, was officially launched last February by Minsters Eamon Ryan and Anne Rabbitte. Based in the former Smurfit Kappa Ireland Printworks in Glasnevin in Dublin, the centre provides an opportunity for unfamiliar users to learn to navigate everyday situations that are made fearful and challenging as a result of impairment or disability. It also provides an opportunity for state agencies, NGOs, and designers to trial new design and construction techniques to help to break down these barriers. The centre houses an Airbus A319, a DART carriage, a LUAS module, a Bus Eireann coach, a double decker bus and a taxi. It features an airport journey zone, platforms, cycle lanes, bus shelters, and pedestrian lights.

There are currently 1.1 million people in Ireland with a disability, but as little as 6% use public transport on a regular basis according to Vision Ireland (formerly the NCBI), the national sight loss agency. The centre is aiming to increase that figure by simulating real-world public transport scenarios and providing familiarisation training aimed at boosting the confidence of people with access needs. The centre will also serve as a training ground for transport staff, designers, academics, and policy makers responsible for making our transport systems more inclusive for those with mobility issues or visual impairments. ROD provided project management and Employer's Representative services on the project. Speaking at the opening, ROD Associate, Andrew Thomson, commented: "ROD was delighted with the opportunity to work alongside Vision Ireland, the NTA, transport service providers, and the main contractor, Oak Project Management, on the delivery of this state-of-the-art centre – the first of its kind in the world. Watching this project come to life over the past 18 months has been hugely exciting, and we look forward to the learning opportunities it will provide for our industry."



LUAS Tram at the Wayfinding Centre



Hitting the road with ROD's company electric vehicle

By Moreno Stellini



ROD's company electric vehicle.

In January 2023, ROD purchased its first company Electric Vehicle (EV) in support of our commitment to becoming a carbon-neutral company by 2050. According to the Sustainable Energy Authority of Ireland (SEAI), EVs offer several benefits over a petrol or diesel vehicle, including:

- The potential to reduce an organisation's carbon footprint by up to 100g/km CO₂, which equates to 1.5t CO₂ for an annual mileage of 15,000km;
- Reduced noise pollution, particularly in cities; and
- Reduced running costs, which are estimated to be 20% less than those of a similar size diesel engine.

An EV comes with some limitations, however, particularly in terms same power. This means the recharge time can vary significantly of km range and driveability. The battery range of an EV fresh depending on the power of the charging station. Depending on the from the factory is between 400 and 650km, while the range of car manufacturer, the adapter for recharging the vehicle changes, an equivalent diesel or petrol car is between 900 to 1100 km. The which means it is not always possible to recharge the car at any battery range from factory, however, represents the maximum distance that can be travelled on a single charge and does not take charging station. into account the factors that can impact the real-world range of an The EV clearly assists ROD to reduce our carbon footprint for trips EV, including driving style, terrain and road topography, weather, in the vicinity of the Dublin office(s), however it is clear that there weight of the vehicle, using heating and air conditioning, condition are ongoing barriers to its use for longer distance trips. As such, we of the tyres and condition of the battery. In my more than 12 need to retain our alternative fossil fuel vehicle(s) for staff required years' driving experience, I have never been able to drive more to undertake longer journeys - such as for ecological site inspections than 380km on a single full charge, and this is without using air in the west of Ireland. We look forward to supporting the state in conditioning, a factor that can cause the available range to reduce addressing the current charging infrastructure deficiencies. significantly.



Once the air conditioning is turned on, the battery drops immediately, 10/15% for 20 to 40 mins usage. The longer the usage, the higher the battery discharge.

Recharging an EV has posed another challenge, as the number of charging stations in our major cities is significantly higher than in the rest of the country. This means that staff travelling long distances from our Dublin offices must consider proximity to a charging station when arranging overnight accommodation, which can be a challenge. Further complicating the issue for staff is that the use of a particular charging station is contingent on having a subscription for its specific provider, for example ESB, Go Charge or Applegreen Recharge, and not all of the charging stations have the same power. This means the recharge time can vary significantly depending on the power of the charging station. Depending on the car manufacturer, the adapter for recharging the vehicle changes, which means it is not always possible to recharge the car at any charging station.



Promoting Cycle Safety and Sustainability

By Frances O'Kelly and Shane Devlin



Bicycle technicians assisting with maintenance and repair services for our Sandyford office.

Did you know that 13% of ROD staff cycle to work? This was established in our Smarter Travel Survey completed by 127 of 230 staff in November 2023, and we know that the figure is greater during the summer months. For many years, ROD has been promoting cycling and cycle safety, which has been spearheaded by cycling enthusiast Séamus MacGearailt, Technical Director. We believe that cycling is a fantastic way to get some exercise, reduce our carbon footprint, and save money - while also supporting a healthier planet! As we are now in summer, we expect to see even more cyclists and walkers across all our offices, and we will continue to support staff to join the sustainable transport movement. As detailed in our Sustainability Plan, we continue our efforts to reduce our greenhouse gas (GHG) emissions in transport and travel by 51% by 2030, and to achieve net zero by 2050. To assist and encourage existing and new cyclists, ROD offers annual repair and maintenance services for our cycling crew to keep their wheels turning smoothly. On May 1st, Cycle Clinic's expert mechanics set up in the carpark at our Sandyford office, servicing a total of 19 bikes. The timely tune-up ensured staff were ready to participate in the NTA Bike Week 2024, which ran from the 11th to the 19th of May. This initiative is just one of many ways in which ROD supports sustainable commuting and reduces our carbon emissions. We also encourage all staff to avail of the Cycle to Work Scheme and the Tax Saver Scheme, making it easy for staff to choose sustainable modes of transport wherever possible.



Biodiversity Net Gain and Ecological Enhancements in Ireland

By Patrick O'Shea

In 2016, the Construction Industry Research and Information Association (CIRIA), the Chartered Institute of Ecology and Environmental Management (CIEEM), and the Institute of Environmental Management and Assessment (IEMA) developed the UK's first good practice guidelines for Biodiversity Net Gain (BNG), which they defined as "development that leaves biodiversity in a better state than before." In February 2024, new BNG legislation was introduced in England requiring all new development to achieve a 10% net gain in biodiversity units.

The emerging biodiversity policy in Ireland includes the achievement of:

- BNG (TII Biodiversity Plan 2023 and the Dublin City Biodiversity Action Plan 2021-2025); or
- No Net Loss (NNL) (Ireland Biodiversity Action Plan 2017-2021 and Irish Water's Biodiversity Action Plan).

To date, no metric has been developed in Ireland to allow for the quantitative assessment of biodiversity losses and gains on a project. TII is, however, developing a biodiversity accounting methodology for use on linear infrastructure projects which, when complete, will likely be the first of its kind in Ireland. In the meantime, developments are required to comply with biodiversity policy despite having no means of quantitively assessing biodiversity. Without a standardised metric, the achievement of BNG or NNL is difficult to prove, and therefore potentially open to challenge. In December 2023, CIEEM published a briefing paper titled, "Biodiversity Enhancement for New Developments in Ireland," to establish the position of the recognised professional body for ecologists. The paper recommends adoption of a primarily qualitative approach to biodiversity enhancement until such time as a quantitative metric is developed for Ireland.

ROD has been implementing biodiversity enhancements on projects for several years, both to increase our chances of achieving a positive result at the planning stage and to contribute to nature's recovery. For example, as part of our efforts to assist Dublin City Council's Parks Department in making trees safe, we made the following recommendation: rather than removing unsafe trees completely, where possible, a 5m trunk should be left in place, and techniques used to create features that mimic veteran trees, such as natural fractures that provide habitat for insects, fungi, bat and birds.

On the DART+ West project, the construction of the depot between Maynooth and Kilcock will require flood compensatory storage. The 40-hectare area, the primary function of which is to act as a flood compensatory storage area, will be designed as a mosaic of wetland habitats containing ponds, reed beds and wet grassland. Bird boxes, bat boxes and artificial otter holts will also be included as enhancement measures.

As part of an attenuation pond development project in Cherrywood, Co. Dublin, our design team incorporated habitat enhancements into the development. These included the retention of biodiverse grasslands, the translocation of aquatic plants and turves containing biodiverse assemblages of plants to other areas of the site where they will be retained, and the avoidance of topsoil, commercial wildflower seed, fertilisers and herbicides.

ROD's experience in identifying opportunities for cost effective and deliverable biodiversity enhancements across a variety of projects is such that we will be well-positioned for success when metrics become best practice for developments in Ireland in the coming years.



Bee Orchid



ROD Supports Manchester City Centre Litter Walk

By Tilly Skidmore



Graduate Engineer Tilly Skidmore pictured on litter walk.

Last March, ROD and Waterman Group came together to participate in the Great British Spring Clean, a mass action environmental campaign designed to cut litter, end waste and improve public places. In total, around thirty volunteers from across various businesses, local community groups and organisations joined a litter walk through Manchester City Centre, stopping at popular visitor locations, including St. Peter's Square, Sackville Gardens, Canal Street and Market Street. During the walk, we learned more about Keep Manchester Tidy, a partnership between Manchester City Council and Keep Britain Tidy that aims to encourage local involvement in green and clean activities and to create cleaner streets by tackling litter and fly-tipping across the city.

The event provided a welcome opportunity for us to show our support for the council while also strengthening our relationship with Waterman Group, with whom we are currently undertaking post tensioned special inspection (PTSI) works at Mancunian Way, Bonsall Street Bridge and Freeman Street Footbridge.







ROD supports delivery of new Surgical Hubs at Merlin Park and North Dublin

By Ben Gallery



CGI of the proposed surgical hub at Merlin Park University Hospital Image courtesy of Cullen Payne Architects.

ROD has been engaged by the HSE as civil and structural technical advisor (TA) for two new surgical hubs at Merlin Park University Hospital Galway and the Swords Business Campus in North Dublin. The hubs are being developed to reduce waiting lists for day-case procedures in advance of the delivery of regional elective hospitals, and will focus on high-volume surgeries like urology, vascular surgery, orthopaedics, gynaecology, and ophthalmology. They are being delivered under design and build contracts, with John Sisk & Son as the Contractor on both projects.

Merlin Park University Hospital

Modern Methods of Construction (MMC) techniques with a focus on Rapid Build are being implemented at Merlin Park to achieve ambitious project timelines. MMC are innovative techniques that aim to improve the efficiency, quality, sustainability and safety of the construction industry. They can speed up the delivery of construction projects by between 20% and 60% by improving the efficiency of both off and on-site activity.

A precast concrete framed structure is being used in preference to steel and timber, which were ruled out due to the onerous vibration limits and large unobstructed space requirements associated with the use of such materials. Precast concrete framed structures are structural elements cast in a factory and transported to site, where they are assembled and connected. This method offers several advantages over traditional cast-in-situ concrete, including:

- Reduced construction time and cost, as the elements are produced in a controlled environment and can be installed quickly and accurately;
- Improved quality and durability, as the elements are subjected to rigorous testing and quality control before delivery;
- Enhanced design flexibility and aesthetics, as the elements can be customised and shaped to suit different architectural styles and requirements;

- Increased safety and environmental performance, as the elements reduce the need for scaffolding, formwork, and wet trades on site, and minimize the waste and noise generated during construction;
- Improved productivity and efficiency, as the components or modules are produced in a standardised and automated manner, and can be delivered and installed in a shorter time frame;
- Reduced risk and uncertainty, as the components or modules are less affected by weather conditions, site constraints, and labour availability; and
- Lower environmental impact, as the components or modules reduce the need for material transportation, storage, and handling on site, and minimize the waste and emissions generated during construction.

A Category 3 Component Pre-Manufacturing method, which involves the fabrication of discrete components or elements of a building in a factory and then assembling them on site, is also being used to ensure external factors, such as bad weather, do not disrupt delivery times. Off-site fabrication also offers several environmental benefits, including:

- A reduction in construction waste, one of the major sources of pollution and resource depletion in the construction industry;
- An optimisation of material usage, with any excess or scrap material recycled, and damage or loss of material during transportation and handling avoided; and
- A reduction in the amount of waste disposed of on site, which reduces the landfill space and the associated environmental and social costs.

Swords Business Campus in North Dublin

A second surgical hub is being provided in conjunction with the Mater Misericordiae University Hospital at the Swords Business Campus in North Dublin. This unit is being provided in a fully refurbished and repurposed industrial unit, with the contractor installing a new mezzanine to carry plant and services while upgrading the entire fabric of the structure to meet current standards. Work began on site in late spring 2024, and the hub is expected to be completed within 12 months.

Our buildings team is bringing their recent experience in the delivery of outpatient and emergency care units at Connolly Hospital and Tallaght Hospital to bear on the projects.



Phase 2 of Rosetown Housing Development in Rosslare nearing Handover

By Sean Kennedy



Rosetown Phase 1 (Google Streetview)

The second phase of the Rosetown housing development in Rosslare, Co. Wexford, is nearing completion, with handover to Wexford County Council expected in June 2024. The first phase of the 35-unit social housing development was completed last summer. It consisted of 23 units, including 15 three-bedroom semi-detached units, four three-bedroom bungalows, three two-bedroom bungalows and one three-bedroom special needs bungalow. Phase two comprises 12 two-bedroom semi-detached bungalows located to the south of phase one. Construction began in June 2023, with Mythen Construction Ltd. as contractor.

ROD was engaged by the council to provide civil and structural engineering services for both phases of the development and carried out building control amendment regulations (BCAR) inspections throughout the construction periods. Site works include a new estate road providing access from phase one to the north and the adjacent Cois Mara estate to the west of the new development. The design incorporates several sustainable drainage (SuDS) elements, including oversized pipework, swales, filter drains and an attenuation tank, to slow down surface water runoff from landscaped and paved areas and ensure the new development does not increase the flows in the neighbouring watercourses. A drainage model was completed for the proposed network to confirm the positive impacts of our proposals.



'Healthcare Project of the Year' win for Ballyshannon Community Hospital

By Andrew Thomson

Ballyshannon Community Hospital in Co. Donegal has won the coveted Healthcare Project of the Year Award at the Irish Construction Excellence (ICE) Awards 2024.

The award recognises work of the Health Service Executive North-West and the design team in delivering a critical piece of healthcare infrastructure for older people living in South Donegal, North Leitrim, and North Sligo. The design team included Rhatigan Architects; Roughan & O'Donovan (civil and structural); Varming Consulting Engineers (mechanical and electrical); Turner & Townsend (quantity surveyors) and Letterkenny-based Boyle Construction Ltd. as contractor.

The scheme involved significant upgrades to the existing Sheil Hospital in Ballyshannon, Co Donegal; a modern extension to the existing building providing sixty-six single bedrooms and seven twin bedrooms; and associated car parking and site services. A southern link road providing a new entrance to the hospital was incorporated into the design to improve community access and reduce local traffic congestion.

The facility, built at a cost of €28.5m, was officially opened by Minister of State for Mental Health and Older People, Mary Butler, on Friday, 26th April 2024.



A view of the rooftop garden, a space where older people can move around independently, actively, safely and securely.



Minister of State, Mary Butler, officially opened the hospital. Image courtesy of HSE.



New 95-Bed Community Nursing Unit at St. Colman's Hospital, Rathdrum, Co. Wicklow

By Aoife O'Keeffe



St Colman's CGI, Image courtesy of Wejchert Architect

ROD has been engaged by the Health Service Executive (HSE) to provide structural engineering design services for a 95-bed community nursing unit (CNU) at St Colman's Hospital in Rathdrum, Co. Wicklow. The development includes a mix of single, double and three-storey circulation and accommodation blocks. Our design team partners include Wejchert Architects, Hayes Higgins Partnership (M&E) and Turner & Townsend (QS).

The project consists of a new build, multi-storey extension to the existing hospital (6,623m²); refurbishment and upgrade of existing hospital facilities (2,561m²) and demolition works (2,077m²). The site is located on the western slopes of a valley and, as a result, there is a significant difference in level - approximately 22 metres - from the northwesternmost point to the boundary wall along Union Lane.

A construction methodology comprising a 300mm concrete flat slab, with 300mm x 300mm reinforced concrete columns and larger columns near openings, was devised for the scheme. While this solution provides advantages in terms of horizontal services distribution - downstand beams can be avoided, it is somewhat

restrictive in terms of vertical services distribution. Strategically located vertical risers are essential, and there is limited scope for further alterations after the detailed design stage, other than small service penetrations. In-situ flat slab construction requires intensive on-site construction, which is associated with installation and striking of shuttering, reinforcement and large volumes of concrete pouring.

The design solution provides for floor to ceiling windows in patient bedrooms. In addition to encouraging natural ventilation, the large windows allow daylight to penetrate deep into each room across floors and ceiling planes, while also ensuring patients can enjoy great views of the landscaped gardens outside. Equipped with two manually operable inward sashes, the windows open to a maximum of 300mm and 100mm respectively.

The design team has proposed a new access road to circulate the development to the south, with separate foul and surface water drainage systems to replace the existing combined sewer for the campus. Surface water will be attenuated within the site using a soakaway that will be located within a landscaped area to the south of the site.



Europengineers GAM

By Harry Meighan





FuropEngineers delegates pictured at National Childrens Hospital.



Lambay Island

ROD was delighted to host the 2024 Europengineers General Assembly Meeting (GAM), which took place in Dublin from 23rd to 25th May. It was our particular honour to host the event, as it coincided not just with the 60th anniversary of the first Europengineers GAM, but with the 50th anniversary of the foundation of ROD. Notably, the second GAM, which took place in 1966, and the 15th GAM, which took place in 1979, were also convened in Dublin, even though the network did not have an Irish member until ROD joined in 2012.

Europengineers member companies are currently working on several major projects across Europe, including the Grand Paris Express (Setec); the IBM Technology Campus near Stuttgart (Schüßler-Plan); and the expansion of the Bern RBS railway station (Basler & Hofmann). Notwithstanding the scale and significance of these projects, our delegates were highly impressed by the tour of the new national children's hospital at St James's Hospital in Dublin, which we had organised for the morning of Friday 24th, with the design for end user, project coordination and construction quality of the building drawing particular praise. The hospital promises to be a world class facility for childcare, and the education of healthcare professionals. We are very grateful to BAM Ireland for hosting the tour, to Declan Roche and Sinead Rogan for presenting the project and leading the site visit, and to John Lucy for arranging the visit.

Friday afternoon was spent in ROD's south Dublin office, where members reflected on recent network events and initiatives, including the design sprint hosted by Schüßler-Plan in Dusseldorf in April, which brought bridge engineers from member companies together for a two-day workshop on European best practice in modular bridge design. Later in the day, ROD Principal Engineer Ciaran Carey gave a presentation on Ireland's co-operative intelligent transport systems (C-ITS) pilot project, which is currently being delivered by ROD-AECOM for TII and the Department of Transport.

On Saturday, we brought the delegates on a day-trip to Lambay Island, privately owned by the Baring family since 1904, where they experienced the extraordinary natural beauty of the island, historic Lutyens architecture, fascinating wildlife and sampled the local Lambay Irish Whiskey! Thank you to Alex Baring who guided our tour.

Many thanks to Robi Valkhoff of the Europengineers secretariat, Cairin O'Connor of Ireland Less Travelled, and Michelle Harvey for their planning and management of the GAM events.



It is poignant that, in 2024, as well as celebrating our 50th year, we are also bidding farewell to one of ROD's great stalwarts, Gerry Hanney, who to train up a dedicated team of technicians for the future. retires this year after a long and luminous career in ROD. Gerry joined Down through the years, Gerry's Alfa Romeos and his unique ROD in early 1981, when the company was still in its infancy, and there driving style - particularly in heavy traffic conditions - have were only ten or so people in the team. ROD's office was based at 99 become the stuff of legend. He is guite handy with a guitar, and George's Street, Dún Laoghaire, in a three-storey Georgian building, when the occasion arises, he is never afraid to pick it up. Gerry with a dentist surgery in the basement. At the time, Gerry had seven is passionate about golf, despite the many woes it causes him, years' experience working as a trainee draughtsman and had recently but these woes pale into insignificance when you consider he is completed a part-time Diploma in Engineering from Dublin Institute of an avid and self-punishing supporter of Spurs. Technology (DIT) Bolton Street.

Gerry has been the stable rock at the core of the buildings Gerry has often said that Joe O'Donovan and Des Kiernan had a big group for many years. His knowledge, experience, enthusiasm, impact on his career development, but when Ireland went into recession passion, sense of humour and warmth are irreplaceable. He has in the early 1980s, his time with the company was cut short, and like earned a lifelong invitation to all future company events and, of many of his contemporaries, he took the boat to England in search of course, to buildings group nights out. We look forward to seeing work. During this time, he worked on many projects around the world, him regularly and receiving updates on both his golf and his including with another great Irish Engineer, Peter Rice of Ove Arup and beloved Spurs. Partners. At the time, Derry Roughan asked him to keep in touch so that when things improved, he could rejoin the company, and Gerry has From every member of the buildings group, the wider ROD always said "that stuck with him". team, and our extensive network of clients and collaborators.

Sure enough, in 1993, when ROD had won several bridge projects, Derry tracked Gerry down and offered him a job back in Dublin. By this stage, Gerry had built up considerable experience in the buildings sector,



ROD bids a fond farewell to Gerry Hanney By Anthony Mulligan

working for consultancy firms in both London and Australia. When he rejoined ROD, however, he discovered his future was in roads, not buildings. Working alongside Garry Smyth and Shay Ryan, Gerry played a fundamental role in growing the ROD's reputation within the roads sector, an area that continues to be very successful for the company to the present day.

As the Irish economy picked up, ROD's team began to grow, and so too did our project work-particularly in the infrastructure sector. By 2000, we were a team of 40, and having outgrown our offices in the Gables in Foxrock, we moved into Arena House in Sandyford. By this time, our roads, bridges and building work groups were taking shape, and Gerry settled into a steady role in the buildings group.

Gerry became a father figure to the younger engineers and technicians within the buildings group, sharing with them his wealth of knowledge and experience. Many successful engineers and technicians throughout the company (and indeed the world) owe much of their knowledge to Gerry and his warm guidance. Gerry was a passionate instigator of ROD's trainee technician programme, which offers a unique opportunity for students to gain a foothold in the industry while studying parttime for their qualifications in engineering and also allows ROD to train up a dedicated team of technicians for the future.

From every member of the buildings group, the wider ROD team, and our extensive network of clients and collaborators, we would like to wish Gerry a wonderful retirement- one filled with family, travel and lots of great golf.

Thank you Gerry.

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Seachtain na n-Innealtóirí

By Niamh Moore agus Úna Cotter



Daltaí rang a 5 agus rang a 6 ó Gaelscoil Chnoc Liamhna. Chnoc Lín. Baile Átha Cliath.

Bhí am iontach ag ár n-intéirneachaí agus céimithe ag ceiliúradh Seachtain na n-Innealtóirí le daltaí Rang a 5 agus Rang a 6 ó Ghaelscoil Chnoc Liamhna, Chnoc Lín, Baile Átha Cliath. Léirigh na buachaillí agus na cailíní cruthaitheacht iontach agus iad ag forbairt a ndearaí droichead. Chuaigh a gcumas i bhfeidhm orainn agus iad ag tógáil gach rud ó dhroichead trusanna go droichead áirse ceangailte agus driochead tógála, agus fiú droichead le niteoir gluaisteán! Ach níor stad an foghlam ansin. Le cur leis ár n-eolas innealtóireachta, mhúin na daltaí roinnt téarmaí innealtóireachta as Gaeilge dúinn, díreach in am do Seachtain na Gaeilge!

Our interns and graduates had a super time celebrating Engineers Week with the 5th and 6th class students of Gaelscoil Chnoc Liamhna in Knocklyon, Dublin. The boys and girls showed great creativity in developing their bridge designs and impressed us with their ability to construct everything from truss to tied-arch to bascule bridges, and even a bridge with a car wash! But the learning didn't stop there. In return for sharing our engineering know-how, the students taught us some engineering terms as Gaeilge, just in time for Seachtain na Gaeilge!





School, Stillorgan

By Elaine Cogley



Pictured speaking to students in St. Raphaela's National School are (L-R): Muhammad Saad Masood, James Brindley and Patrick Ryan

To celebrate Engineers Week 2024, Graduate Engineer, Muhammad Saad Masood, joined two of our University College Dublin (UCD) interns, James Brindley and Patrick Ryan, on a visit to St. Raphaela's National School, an all-girls' national school in Stillorgan, Co. Dublin. ROD has developed a wonderful relationship with the school over the years by delivering hands-on, classroom-based engineering workshops aimed at encouraging its young students to engage with Science, Technology, Engineering, and Mathematics (STEM).

Our team began the workshop by discussing their different paths into engineering and the exciting projects they are currently involved in. They followed this with an overview of various bridge types before setting the students the challenge of building a bridge that could support the weight of an apple using only paper, tape and string. James, Muhammad and Patrick encouraged the girls to step back and think before jumping into the construction of their bridges, a strategy that worked extremely well, as not one of the bridges failed the apple test! And when the difficult task of judging the paper bridges was over, the winners were rewarded with RODbranded tote bags and various goodies for their efforts.

Speaking after the event, Aine Rooney, a teacher at St. Raphaela's, said: "The workshop was just super, and the excitement was palpable! We certainly expect engineers to come from our school in the future- there is no doubt!"



STEPS Visit to St. Raphaela's National





Rob McCartney Director, Otley Office



I started working on building sites in Belfast at the age of fourteen. I loved the experience so much that I wanted to leave school there and then, but my father encouraged me to keep going so I could study civil engineering in college. When I graduated from Dundee University in 1990, I got a job with Costain, one of the top ten contractors in the UK at the time. I learned a lot from that first job, from bashing in pegs to ordering materials, but when the recession hit in 1992, I was let go. I spent the next couple of years freelancing, but I didn't enjoy going from one job to the next, never knowing where the next phone call would take me.

To break the cycle, I took a site engineer job with Mivan in Antrim, Northern Ireland, one of the top ten contractors in Ireland at the time. I was posted to the Seychelles - in the international division - where the company was building 450 semi-detached houses. I spent a year and a half on the project, looking after everything from programmes and payment applications through to resources, stores and materials. I got some great exposure on the client side during that time, and developed some valuable negotiation skills, which were a necessity when working on a government-funded contract.

When I moved back to the UK, I wanted to gain some experience in a design office, so I took a job with York City Council. I spent seven years with the council, during which time I became contracts manager, responsible for all signs and lines maintenance and everything electrical in the city, from street lighting and car park CCTV systems to transit scheduling technology for buses. I was also involved in several major projects, including overseeing the cable TV installation in the city, which was the largest civil engineering project to hit the UK at the time, and York Millenium Bridge. After the completion of the latter project, I kept in contact with the Resident Engineer on the scheme who had moved onto ROD's Mary McAleese Boyne Valley Bridge, and when he asked if he could bring some of ROD's graduates back to see the bridge, I was delighted to oblige, bringing them around the site myself. A happy coincidence from where I sit today.

My next job was with Scott Wilson, who immediately seconded me into the East Midlands Managing Agent Contractor (MAC), working for the then Highways Agency. I was a team leader initially, but subsequently became an Associate with responsibility for all safety schemes, congestion reduction schemes, and any other network improvements within the region, from concept through to construction close out. After spending six years with Scott Wilson, I TUPE'ed across to Colas, a €33bn turnover company in another JV in the MAC industry, where I undertook value-engineering across multiple portfolios, from bridges to roads renewals to safety and congestion relieving schemes. I was originally employed as a programme development manager but, after a time, I moved across to design manager with responsibility for all designs, studies, funding bids etc., with an annual budget ranging from £70-100 million.

From there I moved to TSP Projects Ltd, going in as Director of civil engineering and the built environment. I looked after approximately 150 staff, made up of civil, structural, bridge and geotechnical engineers and a team of architects, spread across four offices in England. I subsequently became their head of civil engineering, which allowed me to get more involved in the business development side of the business.

My next job was with Atkins. I was responsible for rebuilding the Leeds office team, which had contracted to just seven staff before I started. Over the next four years, I brought the team up to twenty, sorted out any quality issues, brought new clients into the business, and gradually rebuilt our reputation within Atkins.

I joined ROD in February 2024. My main focus is on business development and forming alliances with local businesses. Getting onto the Yorkshire and Humberside consultancy frameworks is my immediate priority, and we are currently bidding for the City of York Council Framework, which is worth £30m over the next four years. ROD has recently been invited to give a lunchtime seminar to the West Yorkshire Combined Authority on our work on active travel schemes, which will allow us to present our experience to client organisations in all local authorities in north, west and south Yorkshire. Greenways are a relatively new concept in the UK compared to Ireland, and I'm hoping we can impress our audience with our considerable experience not just in active travel but in structures improvements and construction supervision.

In the coming months, I will be leaning into my networks in the Chartered Institution of Highways and Transportation (CIHT), Northern Rail Industry Leaders Group (NRILG) and the York and North Yorkshire Chamber of Commerce as part of my business development efforts for ROD. I have a long history with the CIHT- I am a former chair of the Yorkshire and Humberside Region, served on the national council for six years, acted as vice-chair of the audit committee for four years, served as chair of the road safety panel for ten years, and was a member of one of their technical boards for 13 years. I helped set up NRILG many years ago, and was delighted to see it flourish, with people from Network Rail, the Local Enterprise Partnership, consultants, contractors and, indeed, anyone with anything to do with the rail industry becoming part of the association. I am also a former member of Commerce.

My main interest outside of work is karate. In my younger days, I fought internationally for both Scotland and England until I retired in 2000. I have been running a karate club in York for over 30 years and count a current world champion and former world champion as members of the club. I teach karate three nights a week and every Saturday morning while also running the York University karate club. Karate is wonderful sport that helps focus the mind. For me, it is the perfect de-stressor.



Robert Corbally wins 'Best Presented Project Award' in the EFCA Future Leaders Competition

By Roberta Keaney

We are pleased to announce that our Senior Engineer, Robert Corbally, has won the 'Best Presented Project Award' in the European Federation of Engineering Consultancy Associations (EFCA) Future Leaders Competition. The award recognises Robert's work on the enhancing Motorway Operations Services Programme for Transport Infrastructure Ireland. Robert and his team developed software that uses real data from the M50 motorway to provide detailed insights into traffic and congestion patterns. These insights informed the design of operational responses -using variable speed limits - to delay or mitigate the effects of daily congestion on the motorway.

On receiving the award at a gala dinner in Madrid last May, Robert said, "I am honoured that my work on the eMOS programme has been recognised at a European level. It reinforces my belief that novel research and data-driven solutions represent the future of our industry as we move towards a new digital era of designing, building and managing our infrastructure."

Robert thanked TII and the directors in ROD for "placing their trust in me to push the boundaries in the pursuit of cutting-edge solutions"; his team in ROD for "working tirelessly to make the vision a reality"; and the Association of Consulting Engineers of Ireland (ACEI) for nominating him for the award.

New Recruits



Jade Schanen

Jade joined ROD as a graduate environmental scientist last March. Originally from Detroit, Michigan, she moved to Ireland to pursue an undergraduate degree in environmental science at Trinity College Dublin (TCD), graduating in 2023. Jade has a keen interest in urban ecology and sustainability, and her final-year thesis examined insect biodiversity in Dublin city centre. In her spare time, she enjoys running, crocheting and attending gigs.



Athul Gopikuttan

Athul joined our transportation team as a design engineer last May and has been assigned to the NTA's Active Travel Support Office. He has over nine years' experience in the design and project management of roads, residential and active travel projects. Athul has worked on numerous road and active travel schemes in Ireland, the UK, Denmark, Middle East, East Africa and India. He holds a Master's degree in Civil Engineering and has achieved the Project Management Professional (PMP) Certification with the Project Management Institute (PMI). In his leisure time, Athul enjoys travelling and playing chess.



Havin Arslan Gursoy

Havin joined our bridges team as a design engineer last March. Originally from Turkey, she moved to Dublin to gain both international experience and exposure to a different culture. In the four years since her graduation, Havin's work experience has been mainly focused on steel and pedestrian bridges. She has a keen interest in developing structural analysis models and likes to follow news of special bridge completions. In her spare time, Havin enjoys painting with watercolours, spending time with family and friends and reading.



Louise-Marie Lanaud

Louise-Marie joined our water team as a design engineer last March. She is originally from France, where she gained two years' experience working as a flood modeller and hydrologist before moving to Ireland. Louise-Marie is naturally curious about the differences she will encounter working in a different country and is enjoying discovering new places to visit in Dublin and beyond. In her spare time, she likes to knit, cook and go to the cinema.



Pradeep Kancharla

Pradeep joined our bridges team last December and is based in our Otley office. A design engineer, he has over eight years' experience working on bridge projects in the UK, US and Canada. He has also worked for a global design consultancy in India, where he was involved in several multidisciplinary projects. Pradeep holds a master's degree from IIT Madras, Chennai. In his spare time, he enjoys going for walks, exploring new places, watching films and cooking.



Chloe Rodrigues

Chloe joined our transportation team last April. Originally from Goa, India, she earned a Master's degree in Architecture and Urban Design from Technical University of Liberec in the Czech Republic in 2021. Chloe has five years' experience in architecture and urban design and has worked both in India and Ireland. In her spare time, she enjoys crafts, painting, digital art, food, binging on anime, visiting galleries and museums, and exploring new places.



Kerim Yurek

Kerim joined ROD as a Resident Engineer on the Clontarf to City Centre project last July. After completing an undergraduate degree in civil engineering, he earned a Master's in Occupational Health and Safety and undertook a postgraduate degree in digital construction analytics. Prior to joining ROD, Kerim worked on the M11 Gorey to Enniscorthy Bypass, N25 New Ross Bypass and Navan 2030 Town Scheme. Originally from Turkey, he enjoys travelling, cooking, gardening and cycling.



Liam Taylor

Liam joined our team on the N5 Ballaghaderreen to Scramoge Road project last March. He is a graduate of Atlantic Technological University (ATU) Galway, where he obtained a B.Sc. in Construction Management in 2023. Liam is continuing his studies this year, undertaking both an M.Sc. in Built Environment Regulations and a Diploma in Circular Economy Research at ATU Galway. In his spare time, he enjoys playing GAA with his club, Kilmore, in Co. Roscommon and helping to run his family's bar and restaurant in Drumsna, Co. Leitrim, at the weekends. Liam is enjoying his time on the road project, learning new skills and bonding with the team every day.



Ahmed Hussain

Ahmed Hussain joined ROD as a Resident Engineer on the Waterford City Public Infrastructure project last March. He holds an honours degree in civil engineering and spent the past decade developing his expertise on high-rise buildings projects in Dubai. Ahmed moved to Ireland in 2022 and is excited to be part of the community here. He is passionate about football and supports Real Madrid.



John Nally

Clerk of Works on the N5 Ballaghaderreen to Scramoge Road project. John has over 40 years' experience in construction and civil engineering. He has worked all over the UK and Ireland on both the client and the contractor's side, and his previous projects include the Channel Tunnel, Dublin Port Tunnel and Hinkley Point nuclear power station. John's hobbies include cycling, reading and walking. Over the years, he has also done spells helping the coaching team at Carrick-on-Shannon RFC in Co. Leitrim. John is passionate about nature and the environment and loves to watch the wide variety of birds who visit his back garden to snack on his bird feeders.



John recently joined our team as a



Declan Treanor

Declan joined ROD as a Resident Engineer on the N5 Ballaghderreen to Scramoge Road project last April. A graduate of London South Bank University and Open University, he has worked on large-scale civil engineering projects in London and the west of Ireland for the past 24 years. Declan is passionate about the positive impact new infrastructure projects have on rural communities in Ireland and likes working on site and in multidisciplinary teams. An avid sports fan, he enjoys nothing better than attending GAA games on a warm summer weekend.



Hugh Cunniffe

Hugh joined ROD as a resident engineer on the N5 Ballaghderreen to Scramoge Road Project last April. He began his career as a civil engineer in 2002, working with J. Murphy and Sons Limited. Since then, he has worked for several leading civil engineering groups across the UK, Australia, UAE and Ireland, gaining over twenty years' experience in civils, utilities, and construction. In his spare time, Hugh enjoys all sports, particularly GAA and rugby.



Tom Corcoran

Tom recently joined ROD as a senior resident engineer on the N5 Ballaghaderreen to Scramoge Road project. A Chartered Engineer, Tom has over 23 years' experience in the construction of large infrastructural projects, both in Ireland and the UK. He initially worked for civil engineering contractors before becoming a Designer's Site Representative, and more recently, a senior resident engineer. His previous projects include Terminal 5, Heathrow Airport, London and M17 Gort to Tuam Motorway. Tom is a keen GAA fan and enjoys coaching his local athletics and football clubs.



Nicoli Caires

Nicoli recently joined our buildings team as a graduate civil engineer. Originally from Brazil, she has been living in Ireland for the past four years. Nicoli is hoping to learn as much as she can from the more experienced members of our buildings team and to growing, both personally and professionally, at ROD. In her free time, she enjoys exploring new technologies, construction trends, cultures, and beautiful places.



Mark Gilligan

Mark recently joined our team as a graduate ecologist. Born and raised in Dublin, he earned an MSc in Applied Ecology at the University of Gloucestershire in 2022. After some volunteering with the Gloucestershire Wildlife Trust and the Bat Conservation Trust, Mark moved to Galway in 2023 to work for Birdwatch Ireland on the Irish Breeding Curlew European Innovation Partnership (EIP), which entailed working with local farmers and landowners to measure and improve the productivity of Curlew, Lapwing, Redshank and Snipe around Lough Corrib. He subsequently moved to Dublin to work with Malone O'Regan Environmental before joining ROD in May. In his free time, Mark enjoys sea swimming and running for Dublin City Harriers.



Sinethya Randeniya

Graduate Engineer, Sinethya Randeniya, joined our transportation team last May. Born and raised in Sri Lanka, Sinethya holds a BSc in Civil Engineering from University of Jaffna, Sri Lanka. She is excited to continue her career journey in the field of transportation engineering with ROD. In her free time, Sinethya enjoys exploring new interests and seeking out new experiences.



Yuxiang Zhang

Yuxiang joined our bridge design team in Dublin last May. He is hoping to pursue a career in bridge design and contribute to the use of Computational Fluid Dynamics (CFD) simulations in bridge projects. He earned his PhD in Civil Engineering from UCD in 2022. His PhD research focused on the application of CFD simulations in bridge engineering. Before joining our team, Yuxiang worked as a CFD engineer at B-Fluid Ltd in Dublin. In his free time, he enjoys photography, classical music and Chinese tea.

Hard work pays off for two of our technicians



Congratulations to our colleagues, Shane Devlin and Luke Windsor, who recently earned their Bachelor of Engineering degrees from Technological University Dublin. Since joining our trainee technician programme a little over five years ago, Shane and Luke have grown into valued members of our team by working hard to develop their skills and contributing to live projects across multiple sectors. At the same time, they been studying part-time, keeping on top of their coursework and passing their exams with flying colours! We're delighted to see their hard work rewarded and look forward to supporting them as they continue their career journey with us.

Image Gallery

Sandyford Business District Seven-a-Side Soccer Tournament

Well done to our seven-a-side soccer team, who played their hearts out in the Sandyford Business District soccer tournament in May, narrowly losing out to Evelyn Partners Ireland in the final. Led by team captain, Emmanuel Philip, they showed great sportsmanship and skill throughout, leaving us in no doubt that they'll be back for another shot at the coveted tournament title in 2025.

The Sandyford 5K race

We are enormously proud of our team for coming out in force on Thursday the 9th May, to compete in the Sandyford 5K race, organised by the Sandyford Business District in support of The Down Syndrome Centre. From first timers to seasoned pros, our 21 staff members toed the line against over 500 runners, racing their way to victory. Robert Corbally was first across the line, joining Charlie Johnston, Paul Kissane, Jorge Castrillo Pérez to win the men's team prize. Pictured after the event are (L-R): Robert Corbally, Jorge Castrillo, Muhammad Saad Masood, Charlie Johnston.

Not to be outdone by their male colleagues, Rachel Harney, Melissa McNabb, Kate Ballance and Claire Lambert ran a brilliant race, placing 3rd in the women's race.

Pictured (L-R) is our enviromental team, who were narrowly pipped into 4th place: Victoria da Silva Pereira, Yana Bersunukayeva, Jade Schanen and Emeline Lafortune.

A hugely enjoyable event, for a very worthy cause...we'll be back again next year!











Bridges 2024 Conference

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Pictured at the ROD exhibition stand at the Bridges 2024 Conference in Coventry last March are (L-R): Matt Ryan, Aonghus O'Keeffe, Bailey Thoresby and John Collins.



Engineers Ireland President's Ball

Pictured at the Engineers Ireland President's Ball, which took place at the Clayton Hotel, Ballsbridge on Friday, 26 January 2024 are (L-R): Barry Corrigan, Daire O'Riagáin, Eoin O'Catháin and Aonghus O'Keeffe.



Intertraffic Amsterdam

ROD Principal Engineer, Ciaran Carey, pictured at Intertraffic Amsterdam last April, where he shared the stage with Roman Srp of Czech ITS&S, Martin Boehm of ITS Austria, and Jure Pirc of ITS Slovenia while showcasing Ireland's experience in intelligent transport systems (ITS), cooperative intelligent transport systems (C-ITS) and smart mobility.



Irish Whiskey Museum

Last March, our social committee organised a guided tour of the Irish Whiskey Museum for our team in Dublin. Our whiskey connoisseurs had a great night exploring the fascinating history of Ireland's world-renowned spirit before tasting four well-known Irish brands.



Europengineers Design Sprint, Düsseldorf

ROD Senior Engineer, Inês Roque Domingues and Design Engineer David Torrado, pictured in Düsseldorf, attended a design sprint organised by Europengineers and Schüßler-Plan. The event brought young engineers from the Europengineers member companies together to discuss European best practice in modular bridge design, enhance their skills and forge new professional connections.



ROD UK Social Evening

Our UK team impressed us all with their competitive spirit on Monday, 13 May, challenging our directors, who had gathered in Otley for our May board meeting, to an evening of archery and clay pigeon shooting at Hollins Hall Hotel & Country Club in Leeds. The team made the most of the warm spring sunshine, staying late into the evening to enjoy the delicious barbecue and refreshments that followed the tournament. ROD directors, Joe Kelly and Barry Corrigan, are pictured deep in concetration while competing in the archery challenge.



Transport Research Arena (TRA) Conference

Pictured at the C-Roads Ireland project stand at the Transport Research Arena (TRA) Conference in the RDS last April are (L-R): Piraba Navaratnam, ROD-AECOM David Laoide-Kemp, Ellis Roesler, ROD-AECOM Alliance; Tahel Wexler, ROD-AECOM, Ciaran Carey, ROD-AECOM and Shoban Navaratnarajah, ROD-AECOM.



St Patrick's Day parade, Dublin

ROD Senior Technician, Daniel Ahern, pictured marching in Dublin's St Patrick's Day parade last March, where he had the honour of representing the Fethard On Sea Irish Coast Guard Unit.



ROD gets baking to raise funds for sick children

On Wednesday, 20th March, ROD's teams in Dublin pulled on their aprons and dusted their rolling pins to take part in a baking competition in support of The Great Irish Bake for Sick Children 2024. From crêpes and biscuits to coffee cakes and berry muffins, there was an endless choice of treats to choose from



Design Team appointed for landmark College Green Dame Street Public Realm Project

Eoin Ó Catháin pictured with members of Dublin City Council and the Scott Tallon Walker led Integrated Design Team, for which ROD is Project Manager and Engineer (in joint venture with CivicEngineers)



Waterford City Public Infrastructure Project

Deputy Project Resident Engineer, Craig Smart, and ROD Project Resident Engineer, Paul Daly, pictured getting the thumbs-up from Minister for Public Expenditure, NDP Delivery and Reform, Pascal Donohoe, during his visit to the site of the Waterford City Public Infrastructure Project last March.



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