Winter 2024 Newsletter

Editor: Eoin Ó Catháin
Design: Claire Lambert
Printed in Ireland

Foreword

By Jim Thorpe

Welcome to this anniversary edition of the ROD Newsletter, 50 years since Derry Roughan and Joe O'Donovan first launched Roughan and O'Donovan. This edition starts with news of the ROD50 celebration that was enjoyed by our staff and their partners, together with a select few former staff who held key roles during their time with ROD, and ends with some pictures from the event. Standing looking across the Shelbourne's grand ballroom as it filled to capacity with the ROD family was both uplifting and humbling. The accompanying book tells the story of the people and the projects that have shaped the company, making it what it is today. It's a story of responding to the ever-evolving needs of the community for carefully considered infrastructure.

In the early days, ROD supported IDA Ireland in the design of infrastructure to attract inward investment and worked with Superquinn to develop regional retail facilities in fast growing residential areas. From the beginnings of the roads programme, ROD developed a reputation for bridge design and robust contract administration, alongside developing the early-thinking and implementation of bus priority and cycle facilities as urban roads became congested. When the NRA Road Needs Study set out plans for delivery of the major inter urban (MIU) motorway programme, ROD's longstanding relationship with Maunsell in the UK was formalised with the launch of the Roughan and O'Donovan – Maunsell (now AECOM) Alliance, leading to my own posting to ROD's offices in Foxrock to head up the initiative for Maunsell. One of the Alliance's first commissions was to develop the NRA Design Manual for Roads and Bridges (DMRB) as a basis for the MIU programme. The picture gallery at the back of this issue includes a picture of the 25th anniversary dinner of the Alliance Steering committee, which coincided with ROD50. Our environment team was developed to support the constraints studies, route option selection and planning approvals for large sections of the MIUs, while we also applied our roads and bridge design skills to respond to the rail safety review and the resulting level crossing replacement programme and wider investment in upgrading the rail network. ROD was at the forefront of the introduction of Design and Build and Public Private Partnership contracts, working both for county council and contractor clients on both the MIUs and Luas roll out. As Ireland's infrastructure deficit has begun to be addressed, ROD has applied and developed its skills in the areas of operation and maintenance of public infrastructure, the demand for major upgrade of the commuter rail network and supporting the tourism sector with greenways. The various articles in this issue show how all of these areas continue to be important, while reports on our latest research initiatives, including the application of artificial intelligence in the roads sector, continue to drive us forward.

I believe that the success of ROD lies in a few key principles that were applied by Derry and Joe and continue to apply no matter the type of project. At ROD, we work on the basis of putting the success of the project first, with our management processes structured around project ownership and delivery. Successful projects lead to a successful business. We know that project success is best achieved by putting together and retaining stable teams, who stick with the project from conception to completion, even though that can sometimes be 15 years or more. Those stable teams can only be achieved by attracting good people and supporting them to develop to be their best. At its core, consultancy is a people business. As the needs of society have changed, so has the makeup of that society, and we all benefit from the diversity of ideas and approaches that come from the ever-expanding multicultural background of our team. It is a joy that we have been part of breaking down barriers, working across the border within Ireland, and having previously imported knowledge and experience from across the Irish Sea into Ireland through the Alliance, to now be bringing ROD's expertise and approach to project delivery to clients across Britain. After 50 years, we've even opened an office in Cork this year!

Returning to the view across the great ballroom at the Shelbourne, I come back to the fact that what really makes ROD is the people. I am forever grateful to the many people who are and have been part of the ROD family and for the opportunities and support that you have all given me. As we come to the end of our 50th anniversary year, I wish you all a very Happy Christmas and look forward to the next chapters of the ROD story in the new year and years ahead.

Winter 2024

Contents

Transportation

Research

Environmental

Bridges

Buildings

News

ROD Celebrates 50th Anniversary in Style

Article by Barry Corrigan

ROD attendees enjoying dinner celebrations at the Shelbourne Hotel.

On 20th September 2024, ROD hosted a gala dinner for our staff at the Shelbourne Hotel in Dublin city centre to celebrate our 50th anniversary. The event began at 6.30pm when over 300 members of current and former staff and their guests arrived at the hotel. With a warm smile, Michelle greeted and ushered everyone into the pre-dinner drinks reception, which provided an opportunity to mingle with old friends and colleagues, form new acquaintances , and admire the general splendour before the bell sounded for dinner.

The air was fizzing with excitement as we walked into the Shelbourne's Great Room, beautifully decorated to mark the occasion. All eyes were drawn to the screens on each wall, where a presentation of photos and images from our commemorative book was shown. The book was specially prepared to mark the 50th Anniversary and captures interviews and stories of the people and projects that have helped shape ROD over the past 50 years. The book features stories told by our longest-serving staff members, whose memories form part of the fabric of the company, and whose role in delivering our projects, big and small, will always be recognised. Of course our founders, the late Derry Roughan and Joe O'Donovan, whose hard work and dedication laid the foundation for who we are today, featured prominently in the book and in the displays. Our special guests Angela Roughan and Helen O'Donovan were delighted to see images of a young Derry playing rugby for Leinster, and Joe presenting prizes at an ROD golf event in Royal Dublin Golf Club in 2005.

Our master of ceremonies on the night was Bryan Hoey, who expertly summoned our attention, formally welcoming us to the event and inviting us to enjoy all that lay ahead. This included a wonderful four-course dinner, after-dinner entertainment provided by comedian Colm O'Regan, and music provided by the ever-popular band, The Prickly Pears. Bryan then gave the floor to Jim Thorpe, our managing director, who spoke about the significance of the occasion, reflecting on where we have come from as a company, paying tribute to those who had struggled through challenging times to ensure our survival, and celebrating our many professional successes over the years. To honour the contribution of our founders, Jim presented a bouquet of flowers to both Angela and Helen, together with a copy of the special commemorative book.

Next up was our comedian, Colm, who was more than up to the task. Colm had clearly done his homework before the event and knew exactly what buttons to press – ever so gently – to elicit laughter and cheers from everyone in the room. From questioning the team's environmental credentials in terms of their cars and dinner choices to exhorting our younger staff members to have a wild night (while never forgetting that they were being watched by their managers), he gave a five-star performance.

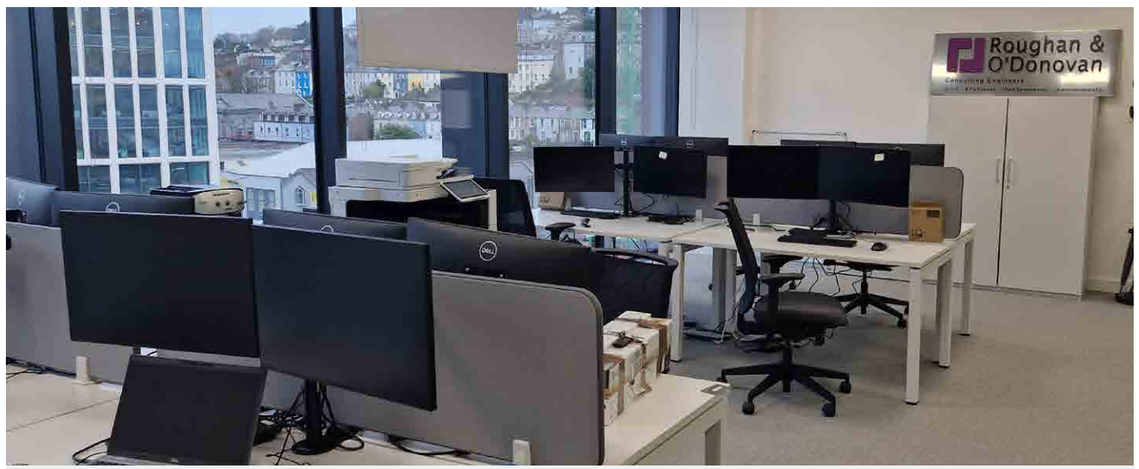
When the Prickly Pears took to the stage, it was time for the dancing, and the 80s hits – from ABBA to Queen – filled the dancefloor within minutes. Before the night was over, the more musical members of our team had taken to the stage to belt out a few numbers, much to the delight of those still dancing.

We were all sorry when it was time to go home. No one wants a great party to end. But it was a perfect night and a fitting way to celebrate our first 50 years as Roughan & O'Donovan. We look forward to many more!

Commemorative ROD 50 Book produced for all staff members.

ROD Opens Our First Office in Cork

Article by Eoin O Catháin



Interior shot of ROD Cork office.

ROD is delighted to announce the opening of our first office in Cork. This has long been an aspiration of our various Cork-born personnel, and follows the successes of our recent expansions into the UK and the north side of Dublin. The office will provide a base from which to service our significant Cork-based commissions, including the BusConnects Cork project and the Cork Area Commuter Rail programme, both with TYPSA, and the West Cork Greenways scheme with AECOM.

Our Cork office will be led by Mark Glaysher. Mark has joined us from Network Rail, and bring extensive engineering, environmental and sustainability expertise. In the short term, Mark will be joined by a number of staff who are in the process of relocating to Cork. We hope to complement this initial team by local recruitment to build a largely self-sufficient team in the coming years.

Cork City is identified as the key growth area in the state under the National Spatial Strategy. The docklands in particular present an enormous opportunity for a new urban quarter within easy walking distance of the city centre. There are significant infrastructure plans to enhance accessibility and permeability into and through the city centre, including our projects noted above, the Cork Luas project, and the Lee to Sea cycleway project. We look forward to bringing our expertise gleaned over the past 50 years to the Cork market, and to building a strong local team to help realise these development aspirations over the coming decades.

- ROD-TYPSA is leading the BusConnects Cork Southwest Strategic Transport Corridor scheme. This will provide high quality bus, pedestrian cycle infrastructure connecting Ballincollig, Bishopstown and Togher to the city centre. Overall, it comprises almost 19km of new and improved transport infrastructure. It is hoped that the planning application to An Bord Pleanála will be made in late 2025.
- The Cork Area Commuter Rail commission is a massive investment programme to transform the Cork commuter heavy rail network. It will include new stations, improvements at existing stations, park & ride facilities, electrification, and signalling enhancements. It covers the full Cork commuter rail catchment, from Mallow in the north, through the city and to Midleton and Cobh in the east.
- The West Cork Greenways project will connect Skibbereen to Drimoleague, Schull and Baltimore – over 60km in total. ROD-AECOM is currently nearing the end of the option selection stage, and it is hoped that an Environmental Impact Assessment can be completed for submission to An Bord Pleanála in 2026.

Completion of the Clontarf to City Centre Project

Article by Colm Gogan

Malahide Road, Island Bus Stop.

The Clontarf to City Centre Project was officially opened in November following a 30-month construction stage. ROD is proud to have been involved in the scheme since 2017, having brought it through the detailed design, tender and site supervision stages. The €62 million scheme provides high quality walking, cycling and bus infrastructure along a 2.7km route that extends from Clontarf Road, at the junction with Alfie Byrne Road, to Amiens Street, at the junction with Talbot Street. The project was led by Dublin City Council (DCC) and funded by the National Transport Authority (NTA). Clonmel Enterprises Ltd. was the main contractor, with CSR Land Planning and Design as landscape architect and Kevin Cleary as the public lighting designer.

The completed scheme provides high quality landscaping and paving upgrades throughout, including new benches for people to sit on and to enjoy the many new stopping spaces that have been created. Pedestrians have also been given priority across unsignalised side roads which has rebalanced the road hierarchy along the route in favour of pedestrians and mobility impaired road users. 14 new "Island Bus Stops" have been installed along the route; these island bus stops provide a refuge for waiting passengers away from the through footpath, while allowing cyclists to pass behind the shelter. A completely new public lighting system has been installed throughout, with additional heritage lights installed from Annesley Bridge through Fairview Village all the way to the Howth Road. An extensive rehabilitation of heritage street lights was undertaken as part of the works, and gaps were filled with replica columns.

SUDS areas have been incorporated throughout the scheme, including bioretention areas and swales. A bespoke tree pit design was devised in consultation with DCC Parks Department for the new street trees planted along the footpaths. A key project goal was to retain as many of the pre-existing mature trees as possible along

View of completed works on the Clontarf Road.

the route. In conjunction with the new landscaping, these greatly assist in minimising surface water runoff into the municipal sewerage system. The scheme also incorporated 12km of new watermains, addressing water leakage issues in the area, 9 major junction upgrades, 5 signalised toucan crossings, traffic & fibre ducting, utility diversions and enhancements to the surface water drainage network. Several retaining walls along the route were set back and rebuilt to provide enough width to allow for the proposed cycle track, most notably the heritage wall and decorative railing at the CIÉ Headquarters on Amiens Street / Sheriff Street. This involved extensive coordination with the site heritage conservation architect.

The scheme was delivered in close coordination with DCC site staff, local councillors, business and residents' groups, facilitated through a consultative forum that met at three-month intervals. Major road reconstruction and resurfacing works on the carriageway were undertaken at evenings and weekends. Traffic disruption, while significant, was kept to a minimum during the construction stage through close coordination with the roadworks control department in DCC.

Cyclists will enjoy completely segregated cycle infrastructure along the route. As well as protection at junctions and advance green signals at junctions, they will also benefit from hundreds of bike parking stands to securely lock their bicycles. Bus drivers and passengers will benefit from new kerbs and carriageway surface all the way from Talbot St to the Alfie Byrne Rd. The new surface is smooth, quiet and a significant improvement on the old surface. Early indications show that cycle numbers have already increased in the morning peak along the route. Bus journey times have improved significantly along the route which will benefit the many commuters along the busiest bus route in the city.

Planning Success for the new Dublin Bridges, Bus and Cycle Infrastructure

Article by Eoin O Catháin

Photomontage of relocated Scherzer Bridges at Spencer Dock.

ROD, in joint venture with TYPSA, has secured planning permission for the Ringsend to City Centre core bus corridor – part of the BusConnects Dublin programme. The project will be transformative for Dublin's docklands, and features various significant bridge infrastructure in particular. The scheme was designed by ROD-TYPSA , who also prepared the Compulsory Purchase Order. The Environmental Assessment was prepared by a joint-venture of Jacobs-Arup-Systra in conjunction with the design team.

The scheme will provide continuous bus and cycle priority infrastructure along 1.6km of both the north and south quays, with an onward cycling connection to the planned Sutton to Sandycove (S2S) Cycleway at Beach Road in Sandymount. When complete, there will be continuous bus lanes in both directions along the north quays from the Custom House to the Point Roundabout, vastly improving journey time reliability for buses, coaches and taxis between the city and the M50 Dublin Tunnel.

In order to achieve these four lanes, the scheme includes the dismantling, restoration and reassembly of the historic rolling "Scherzer" bridges at George's Dock and Spencer Dock (Royal Canal). The old bridges will be reassembled on each side of the roadway to carry pedestrian and cycle traffic, and new four lane concrete bridges will be constructed in between to carry the bus and traffic lanes. The road levels at Spencer Dock are being raised to maintain navigational access for pleasure barges to the Royal Canal, including an allowance for sea level rise. The inner bridge at George's Dock will be restored so it can be opened at weekends to complement the surrounding heritage and amenity zone that includes CHQ and the EPIC Emigration Museum.

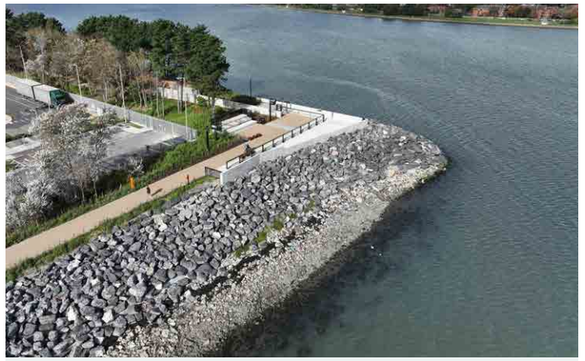
Bus priority along the south quays will be provided by management measures, with short sections of bus lanes and bus priority signals being used to provide two-way priority east of Samuel Beckett Bridge and inbound priority west of the bridge. All outbound buses will use the north quays due to geometric restrictions at the southern tie-in of the Samuel Beckett Bridge, and enhanced bus priority signals will be provided at its northern tie-in junction.

The most significant structure being proposed on the project is the Dodder Public Transport Opening Bridge. This will span from Britain Quay (the end of Sir John Rogerson's Quay) to East Link Road, and will provide a direct connection between the Poolbeg Special Development Zone and the south city centre. The bridge includes an opening span to maintain navigational access to the Grand Canal Basin adjacent to the confluence of the Rivers Dodder and Liffey.

The scheme also includes two boardwalks to enhance pedestrian provision along the north quays, and traffic management interventions at Mayor Street. The overall project cost is estimated to exceed €100m.

Completion of Tolka Estuary Greenway Phase 1

Article by Eoin O Catháin (with acknowledgement to Dublin Port Company press release)



Tolka Estuary Greenway Viewing Point 1.

View eastward along Greenway towards Viewing Point 3 with Promenade Road Extension to the right.

On 26th September 2024, Minister of State James Lawless TD launched the Dublin Port Tolka Estuary Greenway, a shared cycling and pedestrian route running eastwards from EastPoint Business Park along the northern perimeter of the Port Estate to the ferry terminals. The greenway is the first phase of a €25 million scheme aimed at breaking down the boundaries between Dublin city and Dublin Port and facilitating greater access from the city to the sea. Integration of the port and the city is a key objective of Dublin Port's Masterplan 2040.

The 1.9km walking and cycling route opens up previously inaccessible parts of the port and never-before-seen views of Dublin Bay to the public, including of Clontarf, Bull Island and Howth Head. ROD led a multidisciplinary design team that at various stages included Darmody and DMOD Architecture, Malachy Walsh & Partners and Byrne Ó Cléirigh Engineers, Redscape, Austen Associates and TTT Landscape Architects, Hugh Munro and James Wark M&E Consultants, and Cundall and ThermalImage public lighting. ROD initially secured planning permission for the greenway in 2016 as part of the Port's Road Network Improvement Project.

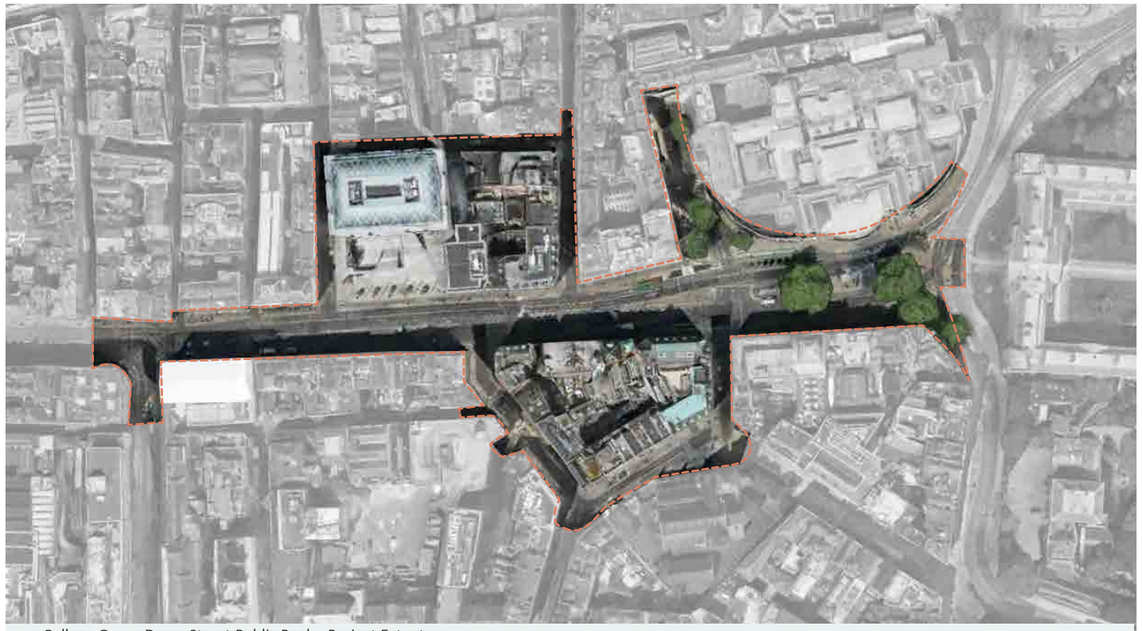
Sustainability and social responsibility informed key elements of the project, including introducing safe provision for sustainable transport modes to the heart of the port and protecting and enhancing the environment for the vulnerable ecosystem of Dublin Bay Special Area of Conservation. We adopted a holistic approach to the planning of the project, drawing on the specialist expertise within the team to identify how best to enhance access to an area perceived as industrial and unaccommodating, provide additional protection to the surrounding environmental sensitivities, and enhance the natural habitats along the port's green boundary.

The works comprised multiple engineering and architectural packages, including emergency coastal protection repair works, greenway including feature structures at stopping points, specialist lighting, extensive soft landscaping, and various public realm and interpretation fixtures. It presented numerous challenges for the design team, not least the significant environmental constraints posed by the adjacent Dublin Bay Biosphere.

Following an extensive design phase that featured stakeholder and local community engagement, Wills Bros Ltd was appointed as the main contractor for the Greenway works. Construction work began in summer 2023, and over the following 15 months, the works were constructed in a sensitive manner, reflecting the importance of the surrounding bay for wildlife and birds. The second phase of the greenway will link the north part of the port with its most eastern point, and it is hoped that this will be completed in 2026.

College Green Dame Street Public Realm Project

Article by Rebekkah Kaligorsky



College Green Dame Street Public Realm Project Extents.

The College Green Dame Street Public Realm Project is a transformative initiative aimed at revitalising one of Dublin's most iconic locations. Located adjacent to Trinity College and Grattan's Parliament, College Green serves as a critical junction connecting various commercial and cultural landmarks. The project's primary objectives include enhancing accessibility and safety for pedestrians, promoting sustainable transportation, and creating vibrant public spaces that encourage social interaction.

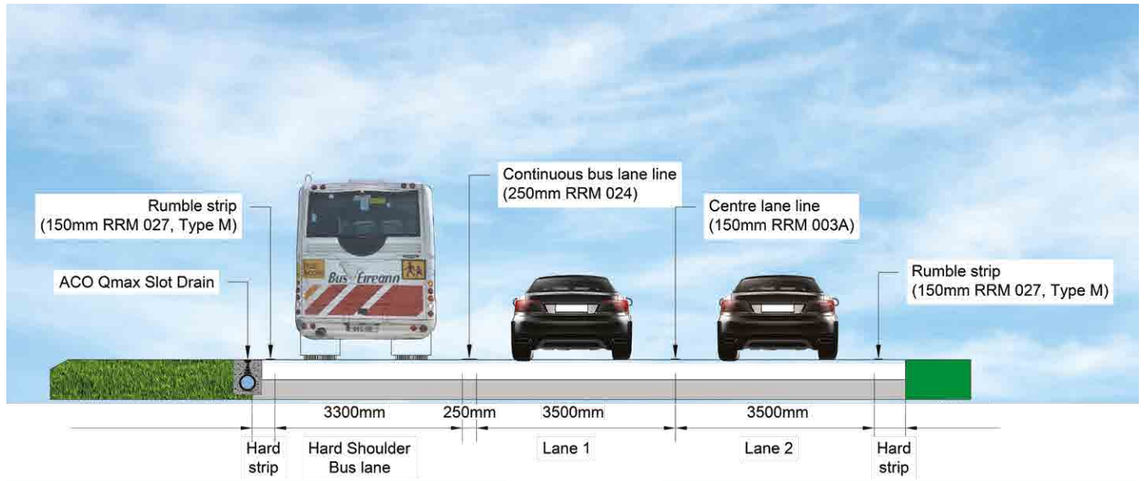
Key elements of the redesign involve significant improvements to the pedestrian environment, landscaping for improved air quality, and the introduction of public amenities such as seating areas and art installations. A broader complementary traffic management strategy for the area will ensure smoother flow for public transportation and bicycles, leading to reduced congestion.

ROD is providing Project Management services for the project. Our key responsibilities include: Project Coordination, Schedule Management, Risk Management and Stakeholder Engagement. We are also in joint-venture with Civic Engineers for the civil engineering aspects of the project, and will administer the construction contract and supervise the works in due course. ROD is part in a multi-disciplinary team of urban planners, landscape architects, civil engineers, community engagement specialists, among other specialists, driving this ambitious project along. The collective expertise is essential to create a holistic urban environment that prioritises both functionality and aesthetics. The team leaders are Scott Tallon Walker Architects in conjunction with OKRA Landscape Architecture.

Ultimately, the College Green Dame Street Public Realm Project represents a significant investment in Dublin's urban future, aiming to create a sustainable and inclusive environment that will enhance the quality of life for residents and visitors alike. Through thoughtful design and ROD's experienced management, this project is set to redefine Dublin's urban landscape for the future.

M4 Bus Priority Scheme

Article by Gareth Mitchell



Proposed Bus Priority Cross Section.

ROD-AECOM, in collaboration with TII and Globalvia Jons, has recently been working to deliver a pilot bus priority scheme on the eastbound carriageway of the M4. The scheme extends from Junction 7 (Maynooth) to Junction 5 (Lucan) where an existing bus priority arrangement (ROD-AECOM's earlier N4 Lucan Bypass scheme) then continues citybound. The scheme is being delivered in two phases with Phase 1 between Junction 6 Celbridge and Junction 5 currently under construction.

The overarching objective for the scheme is to provide a sustainable transport solution that encourages a modal shift from car reliance to public transport. The scheme will improve the efficiency of the core bus system, providing passengers with more reliable journey times. It will operate during periods of mainline congestion with the bus priority measure allowing buses and coaches avoid the congested traffic lanes.

With civils works such as new drainage, hard shoulder strengthening and the construction of the necessary ITS infrastructure ongoing, it is hoped that the scheme will be delivered in mid-2025, with the pilot informing the design and operation of similar retrofit schemes on the motorway network. Globalvia Jons is constructing the works in its capacity as MMaRC (Motorway Maintenance and Renewal Contract) Area A Contractor.

View of M4 Bus Priority Scheme looking West.

View of M4 Bus Priority Scheme looking East.

N5 Ballaghaderreen to Scramoge Road Project moves to construction

Article by Luke Duffy

Construction of N5 Ballaghaderreen to Scramoge Road.

Construction began on the N5 Ballaghaderreen to Scramoge Road Project in Co Roscommon in early 2024. The Design and Build contract for the construction of the scheme had been awarded to Wills Bros in December 2023. The €450m project is funded by the Government of Ireland through TII under the National Development Plan. It is expected to be completed in 2027. When complete, it will eliminate sections of the N5 with collision rates nearly twice the national road average and boost economic activity in the west of Ireland by enhancing connectivity between the west, midlands and Dublin. Approximately 250 people are employed for the project's construction.

The scheme includes 34km of new Type 1 single carriageway commencing at its tie-in with the N5 Ballaghaderreen Bypass in the west, bypassing the towns and villages of Frenchpark, Ballinagare, Tulsk and Strokestown, and then reconnecting to the existing N5 at Scramoge. It includes the realignment of 16km of other national, regional and local roads. It also features five roundabouts and eight bridges, including four river crossings, nine underpasses and seven large culverts. Provision has been made for pedestrian and cyclist facilities where the route meets access points to some of the towns along the route.

ROD-AECOM worked closely with Roscommon National Roads Regional Office (NRRO) for over seven years to bring the road scheme through the preliminary design and statutory planning phases, as well as the more recent contract procurement phase. We supported the delivery of advance works contracts, including detailed topographical survey, detailed ground investigation, fencing, site clearance, high and medium voltage cable diversions and archaeological investigations. Our current responsibilities include providing contract administration and construction monitoring services for the construction and handover phases of the project.

The project is being constructed primarily in a greenfield setting, but there are several locations where the new mainline subsumes existing roads, including the N61 Boyle to Roscommon Road. Earthworks, including the treatment of significant quantities of both peat and rock, have progressed well during the first season. Works on the first river bridge - the R368 Lugboy Road Underbridge, and on several large, precast culverts commenced in summer 2024 and are ongoing. To mitigate environmental impacts, water was diverted through the new culverts prior to the commencement of the annual 'closed season' at the end of September before mainline drainage works commenced.

N15 McGroary's Brae Improvement Scheme reaches completion

Article by Gerard Ward

Drone footage of N15 McGroary's Brae.

In late 2024, the N15 McGroary's Brae Improvement Scheme was successfully completed, significantly improving road safety along a 900m section of National Primary Road approximately 5km south of Ballybofey in Co Donegal. The original road was a heavily trafficked single carriageway with an annual average daily traffic (AADT) of approximately 7,600 vehicles, a typical cross section of approximately 7.5m, no hard shoulders, poor forward visibility and sub-standard geometry.

The imrpovement scheme comprised the upgrade and widening of the existing road to a Type 1 standard single carriageway, inclusive of 2.5m wide hard shoulders and 3.0m wide verges. Works also included the upgrade of a local road junction and a local road access to the Meencrumlin Water Treatment Plant; diversion of existing utilities; a new drainage system, including the installation of a large attenuation tank and several petrol interceptors; boundary fencing; signage; road markings; road restraint systems; and associated accommodation works.

ROD was engaged by Donegal County Council to provide consulting engineering services for the construction and handover stages of the scheme. As well as providing contract administration and site supervision services, we also acted as Project Supervisor for the design process (PSDP). The appointment was made under the TII Technical Consultancy Services Framework Lot 1C.

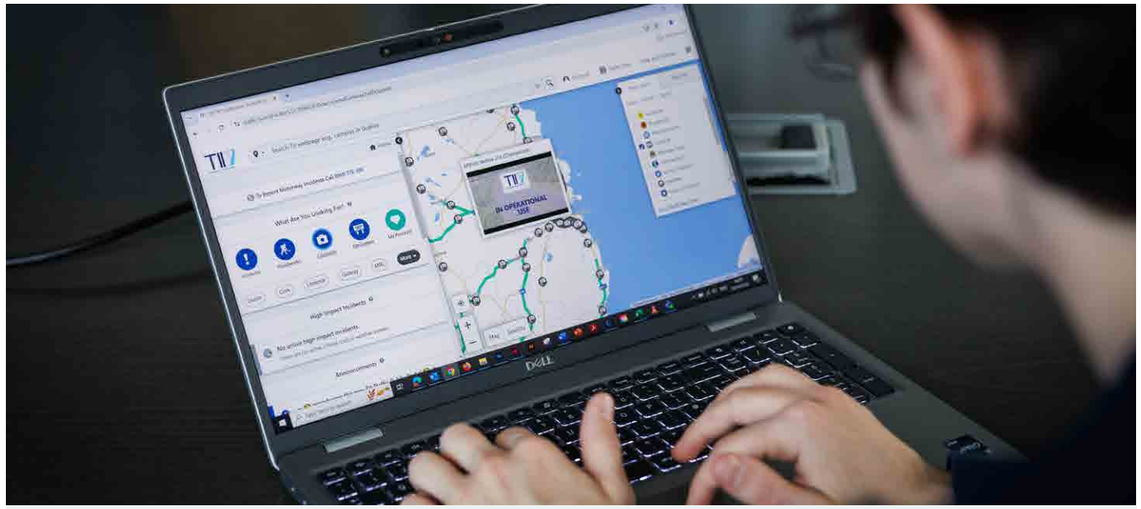
Work began on site in December 2023, with Priority Construction Ltd appointed as the contractor and Project Supervisor for the Construction Stage (PSCS). ROD Project Director Daire Ó Riagáin led the project team, supported by Technical Director Patrick Grennan as Employer's Representative. As the Senior Resident Engineer on site, I was responsible for leading the site supervision, supported by Liam Keeney and Jimmy Kerrigan. Close cooperation between our site team and the contractor was key to the successful delivery of the scheme.

The project team encountered several challenges in delivering the scheme, including adverse ground conditions requiring deep peat excavation within a constrained site adjacent the live N15 carriageway; and extensive existing utilities traversing the site, including high voltage ESB overhead powerlines and an underground fibre-optic cables. The contractor had to implement multiple traffic management phases to facilitate construction of the works.

With the scheme now complete, our project team has moved on to the N56 Letterilly to Kilraine Phase 2 project at the north-west edge of the Blue Stack Mountains just north of Glenties. Having previously provided construction and handover stage consulting engineering services for phase 1 of the scheme, we are delighted to continue our involvement in the project. Work on phase 2 began in September 2024 following the appointment of Fox Contracts as the main contractor.

New TII Traffic Website

Article by Cliona Rogan

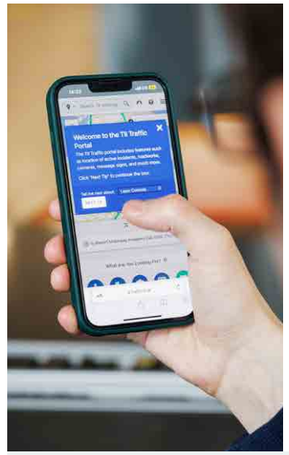


TII Traffic website.

TII launched its enhanced Traffic Website in October - a significant advancement in public access to real-time traffic and travel information, which was developed as part of the eMOS (enhancing Motorway Operating Services) programme in partnership with ROD-AECOM, Kapsch TrafficCom, and Castle Rock. From the outset, ROD-AECOM supported TII in translating their business goals into a clear set of website requirements. Drawing on international best practice for motorway information dissemination, the team collaborated closely with the developers through multiple workshops and demonstrations. This process led to the soft launch of the new website following extensive testing to verify the accurate mapping of multiple data sources.

Designed for ease of use, the website enables travellers to check network conditions before setting out, providing updates on incidents, weather events, roadworks, and service station locations. By pulling data from the NIMS (National Incident Management System) and other complementary TII systems, it provides up to the minute travel information, including live Variable Message Sign updates and recent stills from hundreds of CCTV cameras.

The website allows users to tailor their experience by selecting relevant information upon opening the site. Creating an account allows users to save favourite cameras, routes and preferences for a customised experience, and to receive real-time email alerts for disruptions along their preferred routes. From journey planning to real-time travel times, toll information, and even a sneak peek at roadside art, the new TII Traffic Website brings every detail of Ireland's transport network to users' fingertips, making travel planning easier and more informed.



TII Traffic smartphone App and QR code linking to traffic.tii.ie

QMS Accreditation for MCAAS

Article by Harry Meighan

ROD has been providing services to Transport Infrastructure Ireland on the Motorway Contract Audit and Advisory Services [MCAAS] Region West Contract since May 2021. The services are varied and range from inter alia overseeing the Motorway Maintenance and Renewal Contract (MMaRC) contractor's operations and road maintenance on the network to reviewing winter maintenance plans to developing designs for pavement renewals and renewals of other road infrastructure assets.

We employ a core team of nine personnel to undertake the services, and they are based in MMaRC depots at Nenagh, Ennis and Moate / Athlone. The core team are supplemented by designers and technicians in Sandyford and Otley who develop the designs for Employer Instructed Works Orders [EIWO] to be undertaken by the MMaRC contractor, Colas. The term of our MCAAS contract is 5 years and TII reserves the right to extend the contract for a further 2 years.

The mix of services being provided under MCAAS includes site monitoring, auditing, design and advisory services, and the contract is somewhat unique compared to the normal services provided by ROD. As such, a bespoke Quality Management System was developed at the outset of the contract to comply with the requirements of EN ISO 9001:2015.

The MCAAS QMS operates independently of the ROD corporate QMS, which has been accredited to ISO 9001:2015 for many years. However, designers working on task orders undertake their design work to the ROD corporate QMS.

Earlier this year, we applied to the National Standards Authority of Ireland [NSAI] for accreditation of the MCAAS QMS to EN ISO 9001:2015. The NSAI inspector subsequently undertook the inspection and audit of the systems and procedures in July and August. We are now delighted to report that the MCAAS QMS was certified by the NSAI for registration to EN ISO 9001:2015 for three years from October 2024 to October 2027.

Third Public Consultation held for N4 Mullingar to Longford (Roosky) Project

Article by Claire Cable and Jade Schanen

Public Consultation Event, N4 Mullingar to Roosky.

In early July 2024, the third public consultation for the N4 Mullingar to Longford (Roosky) Project took place, at which the Emerging Preferred Route Corridor (EPRC) was presented. ROD-AECOM Alliance is leading this project for Westmeath County Council in conjunction with Longford County Council and supported by Transport Infrastructure Ireland (TII). Members of the public, landowners, stakeholders and interested parties were invited to participate in the public consultation on the EPRC for the project.

Previously presented route corridor options from February/ March 2021 were subjected to further detailed assessment, having considered feedback from the first and second public consultations. This resulted in the identification of the Emerging Preferred Route Corridor.

The project team is working to improve safety and connectivity between Mullingar and Longford and onwards to Roosky. By resolving the network deficiencies along this section of the N4, the project will enhance overall accessibility in the region and to the West/North-West.

The project aims to reduce traffic levels within the settlements along the route and to allow for reallocation of road space for the provision of dedicated walking, wheeling and cycling routes. The project will also act as an enabler for tourism by improving connectivity between Irelands Ancient East, Ireland's Hidden Heartlands, and the Wild Atlantic Way.

The sustainability strategy for the project supports sustainable mobility options and the Climate Action Plan targets for CO2 reductions by embedding best practice carbon management throughout the project lifecycle - for example, through provision of electric charging infrastructure.

The N4 serves a vast geographical area and provides a significant strategic function in connecting the West and Northwest regions of Ireland to the Midlands and the East of the country. It provides access to peripheral areas of the country including Leitrim, Roscommon, Sligo and Donegal; Cavan via the N55 and Mayo via the N5. Many

Pictured (L-R): Barry Corrigan, ROD; Gary Gilsenan, Westmeath NRO; Jade Schanen, ROD; John Holmes, AECOM; Claire Cable, ROD; Aaron Brown, AECOM; Agata Jennette, AECOM.

businesses in these areas depend on the N4 corridor for access to both national and international markets.

The project encompasses over 25% of the N4/M4 corridor and remains the largest unimproved section of this route. The road currently services up to 17,500 vehicles per day and features more than 500 at-grade junctions and private accesses. This unimproved section of the N4 continues to see high collision statistics, with over 200 personal injury collisions reported between 2008 and 2023. Of these collisions, 20 resulted in fatalities and 35 resulted in serious injuries. Over 50% of the collisions resulting in fatal or serious injury occurred in the 6 years from 2018 to 2023, indicating a continuing upward trend.

Project team members from the ROD-AECOM Alliance met with landowners, local politicians and the local community at the public consultation event. The EPRC and indicative junction locations to connect the proposed N4 to existing regional and local roads was presented through interactive mapping and displays at venues in Longford, Mullingar and Edgeworthstown between the 2nd and 4th of July. A virtual public consultation room was also available for those unable to attend in person. The team set up several computers to show the EPRC on ArcGIS mapping to help visualise the proposed development. The interactive maps allowed for more in depth and engaging conversations with landowners, as the intersections and proximity to properties and other assets could be viewed in more detail than on printed drawings.

West Clare Railway Greenway Update

Article by Rebecca Bailey

Bridge at Moyasta with railway tracks still intact.

ROD continues to progress the West Clare Railway Greenway project, which will deliver an 85km greenway largely following the route of the former West Clare Railway. The scheme will provide an attractive cycling and walking facility for locals and tourists while enhancing the amenity and functionality of the route as an ecological corridor.

The greenway is being advanced by Clare County Council with the support of Transportation Infrastructure Ireland (TII). It is being developed in four sections: Kilrush to Kilkee (Section 1); Ennis to Ennistymon (Section 2); Ennistymon to Miltown Malbay (Section 3); and Miltown Malbay to Moyasta (Section 4). These four sections are being progressed in line with the Code of Best Practice for National and Regional Greenways and TII's Active Travel Guidelines.

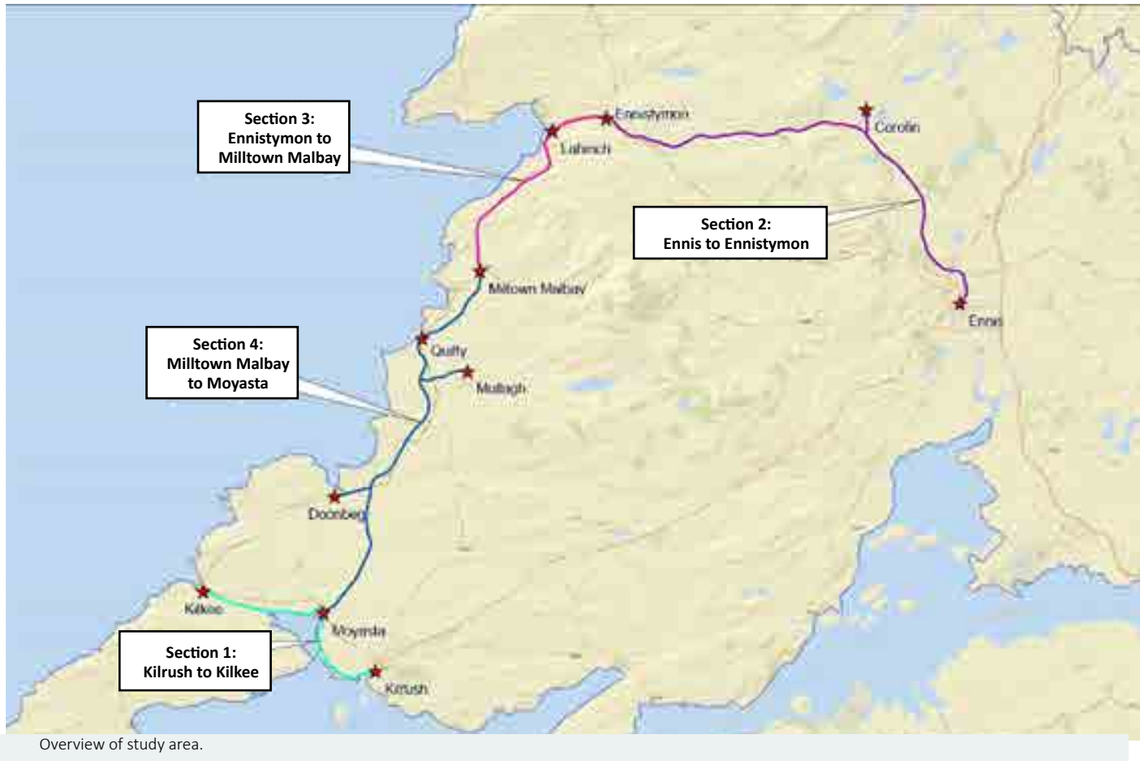
Section 1: Kilrush to Kilkee

The project is nearing completion of the Phase 2 (Option Selection) process, which involves the assessment of Route Corridor Options to determine a Preferred Route Corridor. An options assessment process has been undertaken in line with the Department of Transport's Transport Appraisal Framework (TAF). It saw each of the route corridor options assessed under the headings of accessibility, social, land use, safety, climate change and local environment. Every effort has been made to identify a route corridor that maximises benefits for local communities and minimises adverse impacts on affected landowners and the environment. The third non-statutory public consultation, at which information was provided to the public on the option selection process and feedback was invited on the Emerging Preferred Route Corridor, ran from 15th March to 12th April. The Options Assessment Report was completed following the public consultation and concluded with the identification of the Preferred Route Corridor.

Section 1 is the first greenway in the country to be developed in line with the Code of Best Practice, and while we are excited by the challenges this poses, the inevitable delays caused by implementation of new approval and funding processes has caused some frustrations – in particular to potentially affected landowners. We hope to be in a position to submit the planning application for this section to An Bord Pleanála in late 2025 or early 2026.

Section 2: Ennis to Ennistymon

The second public consultation for this section of the greenway was held in early 2023, with the design team displaying the Potential Route Corridor Options, answering queries, sharing information on the Options Assessment Process and gathering feedback from members of the

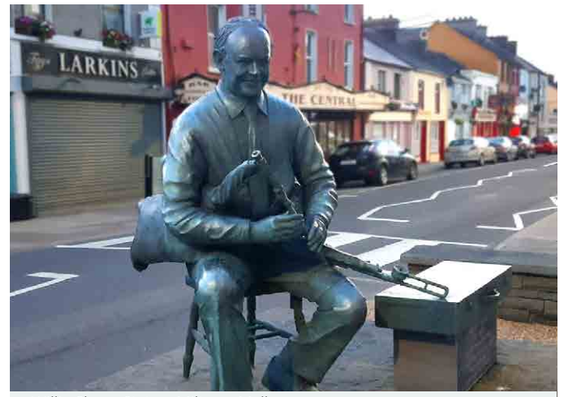


Overview of study area.

public. We are using the feedback received to identify the Emerging Preferred Route Corridor and minimise, where possible, the impacts of the project on the surrounding environment and communities. The options are undergoing a detailed assessment in accordance with the TII Project Manager's Manual for Greenway Projects, TII Project Appraisal Guidelines and the Department of Transport's TAF. An Emerging Preferred Route Corridor will be published as part of the third public consultation. Progress on this section was delayed while we were trialling the new Transport Appraisal Framework on Section 1, but has resumed apace now that the Options Assessment for Section 1 has successfully concluded the TII peer review process.

Sections 3 and 4: Ennistymon to Miltown Malbay and Miltown Malbay to Moyasta

With the study area for this section of the greenway now defined, the design team is identifying potential constraints, key features, and opportunities to create a more attractive user experience. The first non-statutory public consultation ran from 12 January to 2 February 2024, with the public and

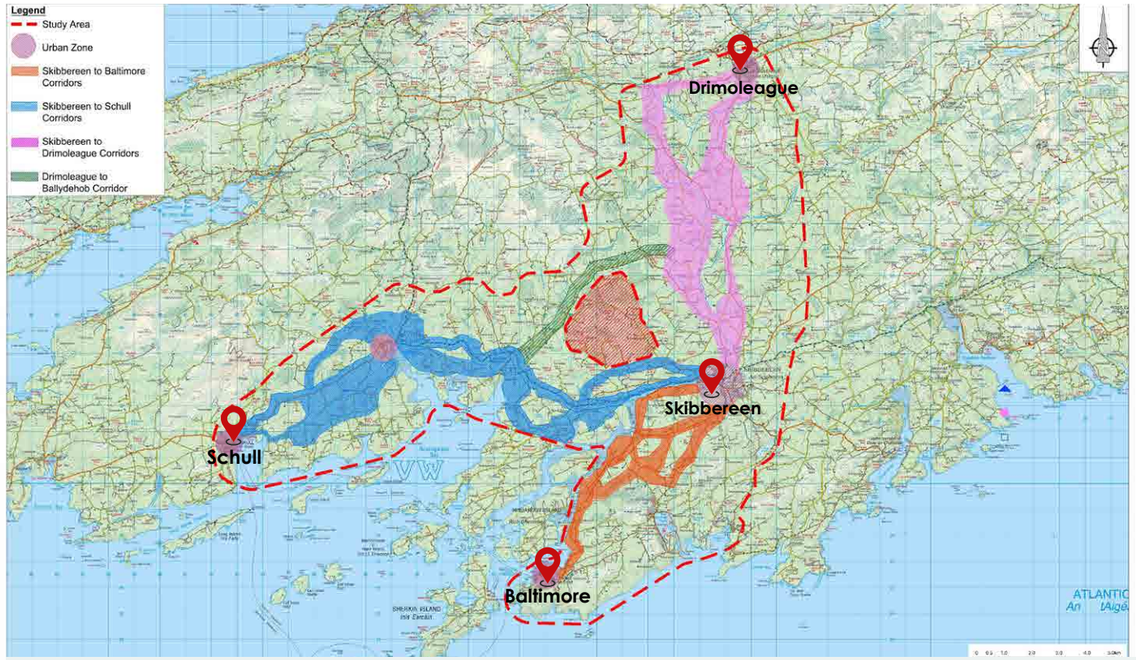


Willie Clancy Statue, Miltown Malbay.

interested stakeholders invited to make submissions on the extents of the proposed study area for the development. The information gathered by the design team is informing the development of route corridor options, which we hope to display at a second public consultation in the first half of 2025.

Second Public Consultation held for Skibbereen Sections of West Cork Greenways Project

Article by Rachel Heaphy



Route Corridors for West Cork Greenways Project.

ROD-AECOM Alliance held the second public consultation for the Skibbereen sections of the West Cork Greenways project in July 2024. The project will deliver greenways between Skibbereen and Baltimore, Drimoleague and Schull in west Cork. Funded by Cork County Council's National Roads Office in association with TII, it will provide safe, enjoyable and sustainable travel routes for cyclists, walkers and wheelers of all ages and abilities.

The route corridor options for Skibbereen to Baltimore, Skibbereen to Drimoleague, and Skibbereen to Schull were presented at the Schull Harbour Hotel on the 2nd July and the West Cork Hotel on the 3rd and 4th July. The events were well attended, with landowners, local interest groups, staff from the National Parks and Wildlife Service and journalists among those present. The project team and the representatives from Cork County Council were delighted with the public's level of engagement with the project, and were kept busy answering queries, listening to concerns, gathering local information and sharing information on each of the corridor options.

As part of the consultation process, members of the public were invited to review drawings of the key environmental, hydrological and archaeological constraints. Information brochures and feedback forms were made available to those present, and submissions via email or hard copy were invited.

The submission period for the second public consultation ran for four weeks, from the 28th June to the 26th July. The project team has since been reviewing the feedback it received and refining the route corridor options to be assessed at Phase 2. The route corridor options will be subject to the seven assessment criteria under the Transport Appraisal Framework. The option selection phase is due to be completed in early 2025 and the third public consultation will then take place. This will display the Preferred Route Corridors for each section of the scheme. The design and environmental evaluation of the preferred option will follow as part of phase 3 of the project.

PIARC Special Project: Artificial Intelligence in the Road Sector

Article by Robert Corbally

ROD has been commissioned by PIARC (the World Road Association) to investigate the areas in which the application of artificial intelligence technologies could benefit the roads sector in the period up to 2030. The project encompasses road safety, road infrastructure design, construction, inspection, operations, management and maintenance.

The key questions to be addressed by the project include:

1. Where is AI either being investigated, piloted, or initially deployed within the road and mobility sector? What are the current set of potential AI use cases and how do they offer benefits to road and transport agencies, customers and stakeholders?
2. What sector-specific issues does the application of AI to roads, transport and mobility face relative to overall trends and experience from other sectors?
3. What is the vision for AI in the road sector? What is the current outlook in terms of regulations across the world?
4. What are the opportunities, barriers and risks for wider AI use in both low and middle-income countries (LMIC) and high-income countries (HIC)?
5. What are the key issues for the security, control, access to, and governance of, data and algorithms between sectors – business, academic, and government – and across national jurisdictions in LMIC and HIC?
6. How should road authorities and agencies set guidelines and regulations for the private sector to develop AI in the road sector? To include consideration of ethics, protecting public interests, pursuing public policy goals, etc.

To gain a comprehensive understanding of the challenges facing the roads sector, we conducted a detailed literature review and engaged extensively with stakeholder organisations across the world. Understanding the different challenges faced in HIC compared to those in LMIC was critical as it allowed us to make appropriate global recommendations vis-à-vis the adoption of AI-based technologies in the roads sector.

Applications of AI range across all life cycle stages from planning and feasibility, resilience planning and environmental impact assessment, to traffic management and road infrastructure design. Two key areas in which AI-based technologies are already having a significant impact in are inspection and maintenance and road safety.

Inspection and maintenance

Infrastructure networks degrade with age and require ongoing maintenance to remain safe and operational. Gaining a holistic understanding of the condition of assets on the network is challenging due to the labour-intensive nature of inspection and monitoring practices and associated budget constraints. This makes it difficult to know where and when to spend money on maintenance, and often results in defects in road infrastructure only being detected when they are at an advanced stage. At that point, they usually require expensive and carbon-intensive interventions. With AI-based technologies, drones, vehicle-based cameras or other sensors can be used to quickly and automatically identify infrastructure defects, contributing to safer and more sustainable transport operations.

Image courtesy of EyeVi Technologies

Computer vision and AI predictive analytics have been used to enhance infrastructure inspection capabilities resulting in improved asset management, predictive maintenance and budgeting in the road sector.

Road Safety

Various AI-based technologies aimed at improving traffic management, incident detection and emergency response are already available in the marketplace. Examples include camera-based solutions for the detection of 'distracted' drivers using mobile phones or driving without seatbelts. AI can leverage floating vehicle data along with data from fixed intelligent transport systems (ITS) equipment as part of a 'data fusion' approach for detecting when incidents happen. This technology can facilitate a faster response to incidents, crucial in some emergency scenarios, and has been trialled by ROD on sections of the M1 and M6 motorways in Ireland.

Image courtesy of Acusensus.

Images processed by machine learning algorithms have been used to assess road safety risks. Computer vision has also been used to detect distracted drivers or people not wearing seatbelts.

Construct Innovate

Article by Ilaria Bernardini

ROD, in collaboration with University College Cork (UCC), has recently been awarded two research projects funded by Construct Innovate, Ireland's national construction technology centre. The two projects, RIADA and PRODIGI, are among 18 project proposals approved for funding through the centre's second seed funding call. The projects reflect the challenges the construction industry is facing around productivity, quality, safety and sustainability.

RIADA

This project aims to develop a consistent and systematic rapid impact assessment (RIA) framework to assess the condition of the road network in Ireland immediately after major disasters. Natural disasters are increasing in number and intensity due to climate change. They are impacting the environment, the economy and infrastructure. Road infrastructure is particularly affected by these events and, as a principal lifeline in a community, its disruption can have significant consequences.

The RIA framework will improve stakeholders' ability to rapidly and effectively deal with emergency situations and will provide road administrators with a tool for a rapid evaluation of the consequences post event, helping them to efficiently analyse the situation and take an informed decision on the best next steps. The tool will provide structure to the assessment process, allowing for a more accurate estimation of the resources required and a more conscious and efficient use of resources and funds, focusing on fast recovery of the infrastructure functionality and facilitating informed, optimised economic decisions.

PRODIGI: Probabilistic Digital Twins for Bridges

This project seeks to inform bridge maintenance through the development of a digital twin - a sophisticated virtual model that mirrors the real-time behaviour of bridges and predicts future conditions using probabilistic algorithms. Bridge monitoring often relies on reactive measures that can be costly and inefficient, potentially leading to safety risks and infrastructure failures that disrupt daily life and incur significant repair costs. The goal of the project is to integrate various types of real-time sensor data (strain, temperature, deflection, cable load cells, etc.) into a dynamic digital twin model that not only reflects the current state of the structure but also forecasts potential future structural issues. This approach allows for proactive, data-driven decisions that can prevent costly repairs, enhance bridge safety and achieve sustainability of existing infrastructure.

The project will use the Rose Fitzgerald Kennedy Bridge in New Ross, Co Wexford as a test-case for the feasibility of a complex digital twin, with technical data provided by TII. By using the data available for this bridge, the project will not only advance our understanding and application of digital twin technology but will also demonstrate the practical benefits of incorporating probabilistic models into the routine care of critical infrastructure. This marks a significant advancement in public safety and infrastructure management. The expected outcomes include determining the feasibility of a fully scalable digital twin framework capable of probabilistic predictions and creating a set of tools for predictive maintenance decision-making.

About Construct Innovate

Construct Innovate aims to position Ireland as the global leader of research and innovation in sustainable construction and built environment technology. It is a partnership between University of Galway, Trinity College Dublin, University College Dublin, UCC and the Irish Green Building Council. The centre brings together 23 multidisciplinary research groups across its partner institutions to work on projects to accelerate important national initiatives, such as the National Development Plan 2021-2030 and the Climate Action Plan.

ROD's ITS Group attends industry conferences

Article by Robert Corbally

ROD's Robert Corbally presenting at the 2024 ITS Conference.

Our intelligent transport systems (ITS) group have been busy on the ITS conference circuit over the past quarter presenting the work being delivered under the eMOS programme on both a global and national stage. Starting with the ITS World Congress in Dubai, Dr. Robert Corbally presented two papers to an international audience that highlighted the benefits being achieved on the M50 through the deployment of ITS equipment and the application of traffic flow theory to big-data. Well received, the papers described our approach to using real-time data-driven alerts to inform motorway control room operators and assist them in identifying the appropriate proactive speed management plans to be displayed on the overhead electronic signs.

Following the World Congress, TII's National Roads and Greenways Conference in Athlone brought public and private sector transport professionals together to explore enhancements for Ireland's national roads and greenways. The eMOS C-ITS team showcased the technology behind the C-Roads Ireland cooperative intelligent transport systems (C-ITS) pilot project, which enables the sending of real-time safety alerts to drivers via the mobile phone network and specialised roadside units on the M1 and M50. These alerts, accessible through a smartphone app or in-vehicle systems, warn of collisions, congestion, stationary vehicles, roadworks, and hazardous weather. Dr. Ciarán Carey was part of the ROD-AECOM team answering questions on the system's road safety, efficiency, and environmental benefits.

At the ITS Ireland Annual Conference 2024 in Galway, which ROD sponsored, Ciarán, as an ITS Ireland executive board member, organised the conference programme and moderated a session on "Digitisation in Transportation." This session showcased the latest in data collection and application advancements. In the final session, Robert delivered a technical presentation on TII's Data Fusion project – a trial using AI and data fusion technology on sections of the M1 and M6/N6 motorways. The goal was to support real-time incident detection and provide enhanced awareness of ongoing traffic incidents. For the trial, the ROD data analytics team and MCAAS team worked collaboratively to establish the benefits of using the data fusion tool, provided by Valerann, for improved incident response.

ROD secures NEC Accreditation

Article by Daire Ó Riagáin

Pictured L-R: Daire Ó Riagáin and Lewis Feely.

Daire Ó Riagáin and Lewis Feely recently achieved NEC (UK New Engineering Contract) Project Manager accreditation, thereby securing a place on the NEC Accreditation Register for the next five years. Both Daire and Lewis have extensive experience in contract management of large-scale infrastructure and technological projects under various forms of contract. Whilst the Government Construction Contracts Committee suite of contracts is the default contract for public works in Ireland (the "Public Works Contract"), ROD has increasingly used NEC on projects such as our work for Dublin Port Company where ROD is acting as Project Manager on a number of projects.

The completion of this course is recognition of a growing trend towards the use of the NEC contract forms in Ireland. It is intended to use the NEC suite on the BusConnects infrastructure programme, for example. The NEC Committee has recognised the recent uptake in interest from the Irish Construction Sector and has developed Irish specific 'Y Clauses' [Y(IR)] that have incorporated the requirements of the Irish Construction Contracts Act 2013 into NEC4 contracts, in the same way that Y(UK)2 incorporates the UK Housing Grants, Construction and Regeneration Act 1996.

NEC4 is the fourth edition of the suite of New Engineering Contracts, and is widely recognised for its flexible and collaborative approach to project management, emphasising the importance of effective communication and risk management. In the UK, NEC has been the contract of choice for years on large-scale infrastructure projects such as HS2, Crossrail and significant National Highways works.

The Project Manager under NEC4 administers the contract on behalf of the Client. As well as having clearly defined actions and requirements to act and respond within defined timescales, the Project Manager also has a responsibility to create a positive culture and environment to ensure all Parties follow the contractual rules and processes. The Project Manager is more than an administrator or an agent of the client - the role also includes managing risk using the NEC early warning system among other contractual mechanisms.

The NEC Project Manager accreditation focuses on four main programme sessions over 4 days of intense training including: Project Start-Up; Programme and Risk Management; Commercial Management; and Contract Management and Project Closure. "I'm thrilled to receive this accreditation" said Daire; "This achievement not only reflects ROD's dedication to continuous improvement in Contract Administration, but also reinforces our ability to promote innovative project management practices".

Engineering Dream to Reality: Sharath Jayaramu, Chartered Engineer

Article by Sharath Jayaramu

Pictured above Sharath Jayaramu with Rob McCartney and Emma Lillingston.

We are thrilled to share that Sharath Jayaramu has recently attained Chartered Engineer (CEng) status from the UK Engineering Council through the Chartered Institution of Highways & Transportation (CIHT). This professional qualification represents a significant milestone in his career journey. Sharath's path to this began in 2018 when he started working on UK projects from India. Joining ROD in October 2022 proved to be a pivotal decision in his career progression. With seven years of experience under his belt, Sharath has grown both professionally and personally since becoming part of the ROD family. He said:

"The collaborative and supportive environment at ROD has been instrumental in my development. The expertise and encouragement from my colleagues in Ireland and Otley have enabled me to bridge gaps in my career and excel in various projects. This guidance has been crucial in helping me navigate the UK work culture and providing high-quality technical support. The company's culture of encouragement to professional development has played a crucial role in my journey. I'm eager to pay it forward by supporting my colleagues in their professional journeys. I would also like to express my heartfelt gratitude for the support I received early in my career in India, which laid the foundation for my current success."

In addition, Sharath has been commended for the Emerging Professional of the Year 2024 award at the CIHT Yorkshire and the Humber Awards Dinner on Friday 8th November. Sharath is excited to continue contributing to our collective success and to inspire others within the engineering community. As he moves forward in his career with ROD, he looks forward to embracing new opportunities and challenges.

Fáilte Ireland Guidelines for Sustainable Recreation at Sensitive Coastal Sites

Article by Síofra Scaly

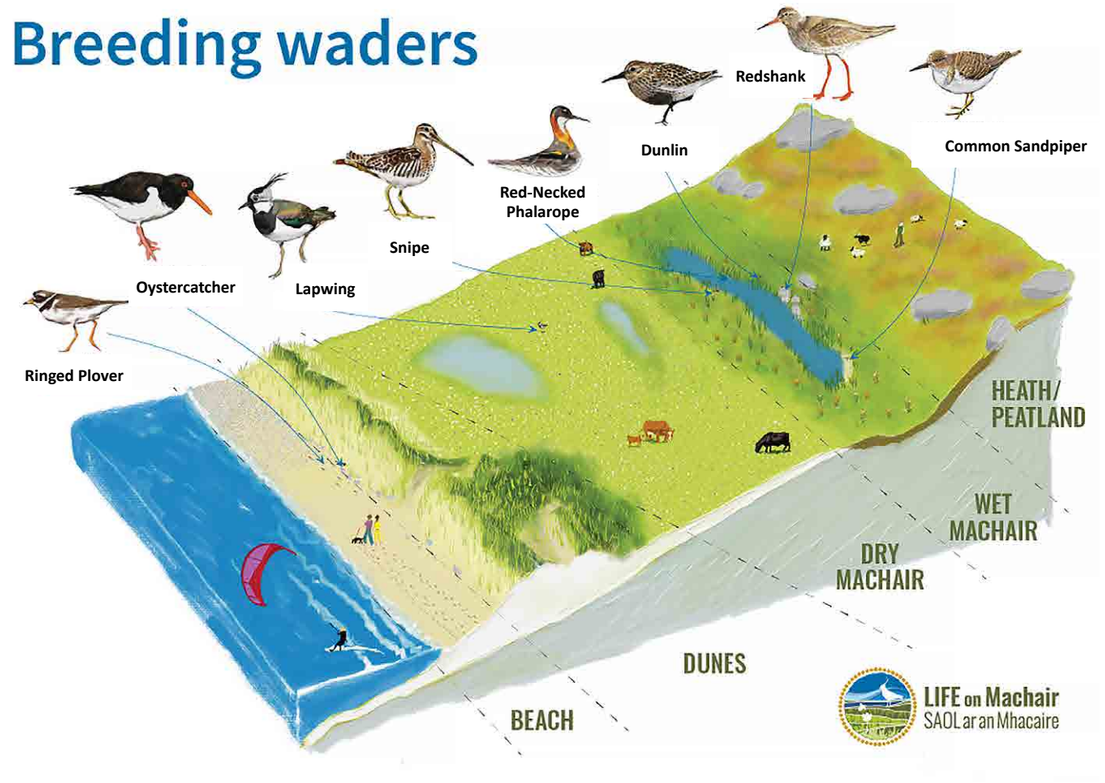
A sensitive coastal site in Donegal, showing a boardwalk to provide access to the beach whilst protecting the fragile dune system.

As previously reported (Winter 2023), ROD was commissioned by Fáilte Ireland in 2023 to produce a set of guidelines and management assessments for sustainable tourism at machair and sensitive coastal sites across Ireland. The guidelines are intended to be applicable to other habitats and non-coastal sites across the country where tourism and recreation can impact biodiversity and nature conservation. The commission forms part of the EU-funded LIFE on Machair (LOM) project, which aims to improve the conservation condition of Ireland's 'Machair' habitats and the ecological conditions for breeding waders and pollinators within the target sites, which include Connemara, Erris in northwest Mayo and Gweedore in Donegal.

Machair is a coastal habitat unique to a small number of sites in the north and west of Ireland and Scotland. It is characterised by a species-rich grassland plain, developed on wind-blown sand. It provides an important refuge for pollinators and threatened breeding wader bird species, such as Dunlin, Lapwing and Redshank. The typical flower-rich vegetation of machair is traditionally maintained through low-intensity livestock grazing, but it is susceptible to pressures from recreational activities and over grazing. Post Brexit, the entire EU land cover of machair occurs in Ireland. As such, its conservation is significant on a European level.

Coastal sites in Ireland are among the most popular places to visit for tourism and recreation. Sand dunes, lagoons and rocky cliffs are examples of sensitive coastal habitats protected under the Habitats Directive. They are important sites for biodiversity and provide habitats for numerous rare species. Sand dunes are particularly important as they provide natural protection to coastal areas from floods and storms. All of these sites are highly vulnerable to erosion, which can be exacerbated by damaging recreational activities.

Wader species are ground-nesting and use machair habitat to build their nests and raise their young. This leaves them highly vulnerable to disturbance from various forms of recreation, such as off-road driving, walkers and dogs off-lead. Disturbance to nesting birds can lead to nest failure and the death of breeding birds and their chicks. The peak of the tourist season coincides with the breeding bird season, when rare breeding bird species are most vulnerable to disturbance by visitors. Numerous other species depend on these habitats for shelter, feeding areas and breeding, and they require adequate protection from excessive unmanaged and unsustainable recreation.



In autumn 2023, ROD drafted initial visitor management assessments, including draft proposals for various types of visitor management measures, for three selected sites, Doonloughan, Co Galway; the Inishkea Islands, Co Mayo; and Gweedore, Co Donegal. In November 2023, Principal Ecologist Patrick O'Shea and I held a meeting with the key project stakeholders to present the work ROD had undertaken on behalf of Fáilte Ireland, discuss the visitor management measures proposed, identify potential issues with their implementation, and explore potential solutions. The stakeholders included Fáilte Ireland, the LIFE on Machair Team, National Parks and Wildlife Service (NPWS), Birdwatch Ireland, County Council representatives, conservation managers, An Taisce, Leave No Trace Ireland and Clean Coasts. The feedback gathered at the meeting was used to inform the development of the guidelines. A literature review of visitor management and habitat management at coastal and nature conservation sites across the world was also undertaken.

The guidelines use best practice examples of sustainable tourism and planning to make recommendations for visitor management and sustainable recreation on sensitive coastal sites. They outline the recreational activities, identified through the site visits, workshops, case studies and literature review, that can damage sensitive coastal sites. Various management measures are presented to manage the impacts of tourism and recreation on the sites. The guidance also include examples of good and bad practice, information on how best to implement the measures to ensure success, and direction on regulation and consent for any proposals.

ROD undertakes Fáilte Ireland's first SEA Monitoring Report on the Dingle Peninsula

Article by Frances O'Kelly and Emeline La Fortune

View of An Blascaod Mór (the Great Blasket Island) from the Dingle Peninsula.

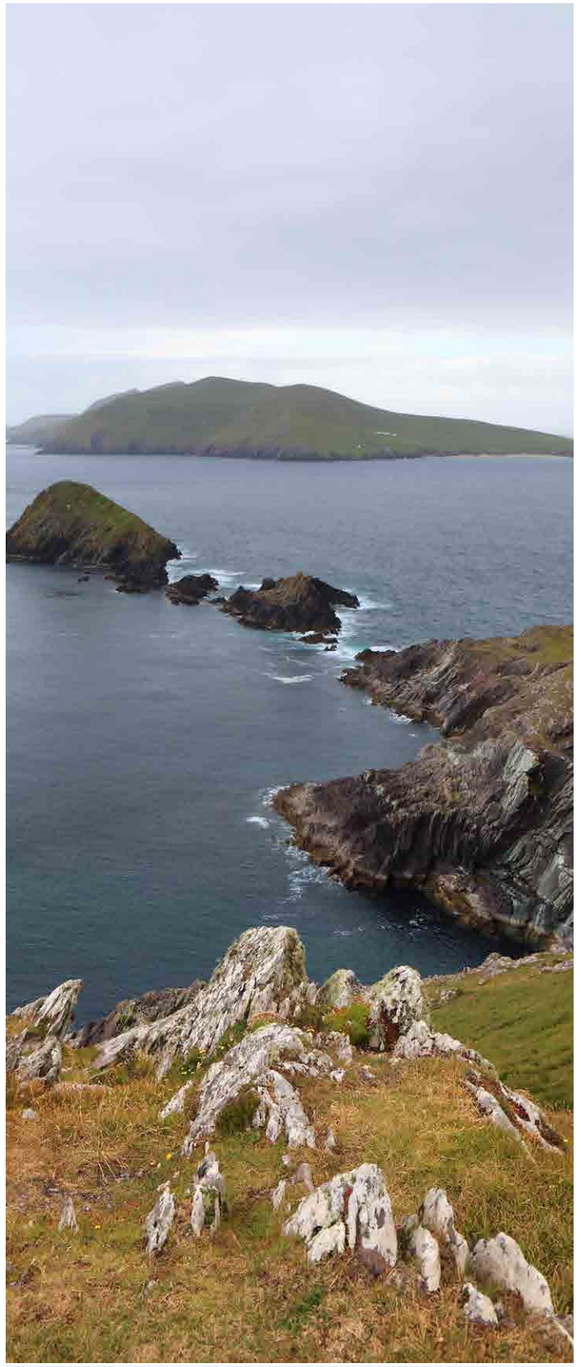
Strategic Environmental Assessment (SEA) is the systemic process by which environmental considerations are required to be fully integrated into the preparation of plans and programmes prior to their final adoption. The objectives of SEA are to provide for a high level of protection of the environment and to promote sustainable development. Monitoring is the final stage in the SEA process. The various stages in the SEA process are illustrated below.

The Environmental Protection Agency (EPA) has reported as part of their second review of effectiveness of SEA that monitoring (along with SEA Statements) is the weakest area of SEA practice both nationally and Europewide. Monitoring can help to evaluate whether SEA is fulfilling its core objective of providing for a high level of protection of the environment and the promotion of sustainable development (Article 1 of the SEA Directive 2001/42/EC).

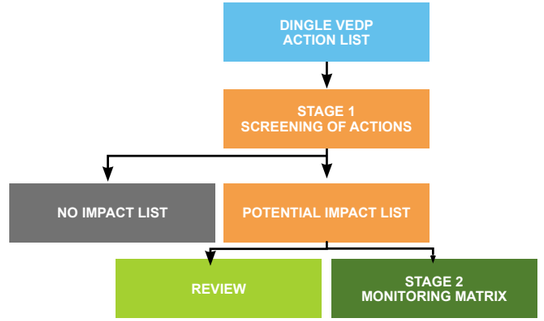
As part of its remit, Fáilte Ireland provides funding for sustainable tourism projects that emerge as part of specific, competitive, themed and time-bound grant schemes or as part of wider strategic partnerships. The Dingle Visitor Experience Development Plan (VEDP) was launched by Fáilte Ireland in January 2021 and organised into a development framework for a five-year period between 2021 and 2026. The Plan was developed with the tourism industry and communities to create a platform for destination development to deliver on the mutual goals of all stakeholders. It supports the development of tourism across the peninsula, evolving from 'visitor attraction' to a sustainable year-round tourism destination.

ROD used the environmental monitoring programme developed during the previous stage in the SEA process (the SEA Statement) to develop a detailed methodology for measuring the environmental effects of the plan. The SEA monitoring was undertaken on the fifty-nine actions detailed in the Plan. The actions were screened and assessed for their potential to result in a significant environmental effect. A key source of information was through consultations with Fáilte Ireland, the Dingle VEDP Implementation Group and through planning application searches.

As a result of the screening process (illustrated overleaf) twenty-five actions were recorded on a 'no environmental impact list' and did not undergo detailed environmental monitoring. This was due to the nature of the action, for example, actions relating to development of tourism branding materials or improving communication between organisations. Twenty-nine actions were found to have not progressed to a level capable of detailed environmental monitoring and were recorded on a 'review list' that will be monitored as part of the next monitoring phase. The remaining five actions were put in to a 'monitoring matrix' and advanced to detailed environmental assessment.



View of An Blascaod Mór from Dunmore Head.



Overall, the assessment found that the Plan has had a neutral effect on the majority of SEA indicators, with one of the actions under the plan resulting in a significant positive effect on the environment – i,e, An Blascaod Mór (the Great Blasket Island). The island attracts approximately 12,000 visitors annually and had been identified as having inadequate access to public toilets. The monitoring identified that the OPW provided access to a public toilet for visitors, which resulted in a positive environmental effect under the material assets indicator. The assessment also found that there have been broader social, economic, and environmental benefits associated with the implementation of the Plan.

The monitoring report concluded with a series of recommendations developed to inform the next monitoring phase. The Dingle VEDP SEA monitoring has revealed the effects of implementing the plan on the environment. In carrying out the monitoring exercise it has tested the effectiveness of the previously developed SEA monitoring programme. After completing the monitoring it has helped to refine the SEA assessment methods to inform the approach to future monitoring. Monitoring can also potentially help to identify and address unforeseen adverse effects of the Plan through the development of remedial measures, none of which were required to be developed for the Dingle VEDP.

ROD is currently in the process of undertaking two further SEA monitoring reports on the 'Ancient East Destination and Experience Development Plan (DEDP)' for Louth and Meath and also the 'Burren DEDP'. The monitoring methodology and lessons learned from the Dingle VEDP will be carried forward into these monitoring reports. Undertaking SEA monitoring demonstrates Fáiltre Ireland's continued commitment to supporting environmental protection of our most precious natural and cultural heritage assets ensuring sustainable tourism development of these areas.

Public Consultation held for Proposed Dublin Bridgeworks

Article by Yana Bersunukayeva and Jade Schanen

Dublin City Council (DCC) and ROD held a non-statutory public consultation on the preferred option for the Point Pedestrian and Cycle Bridge and Tom Clarke Bridge Widening Works Project during June and July. The project is part of the DCC Active Travel Network and will be funded by the National Transport Authority (NTA) and DCC.

The proposed new bridge is approximately 150m in length and will span from North Wall Quay to Ringsend. It is to be located adjacent to the Tom Clarke Bridge, which is also to be widened as part of the works.

The scheme will:

- Provide enhanced pedestrian and cyclist facilities across the River Liffey;
- Improve safety, permeability and connectivity for pedestrians and cyclists travelling between the north and south docklands; and
- Accommodate the delivery of improved public transport services for the Docklands and Poolbeg areas by retrofitting turning onto the Tom Clarke Bridge.

Two in-person information evenings took place over a two-day period in June. The first was held at the Ringsend and Irishtown Community Centre and the second was held at the Seán O'Casey Community Centre in East Wall. Our project team joined council staff at the events to answer queries from residents and stakeholders. Drawings and 3D rendered images of the preferred bridge design option were displayed, and members of the public were invited to provide feedback on the design and to offer their views on the project. The project was well received by those present, and the feedback submitted via the online feedback forms was equally positive.

The project team has taken the information gathered through the public consultation process into consideration in an effort to minimise any adverse impacts on the environment and on local communities. The project is set to be submitted for planning approval in late 2024/early 2025.

Maritime Area Consent Application for Dublin Bridgeworks

Article by Yana Bersunukayeva and Jade Schanen

Point Bridge and Tom Clarke Bridge Widening Project-Maritime Area Consent Map.

In July 2023, the Maritime Area Regulatory Authority (MARA), constituted under the Maritime Area Planning Act, 2021 ["the Act"] and National Marine Planning Framework (NMPF) 2021, replaced the foreshore licensing system. Consequently, where a development would occupy an area of the foreshore, a Marine Area Consent (MAC), rather than a foreshore licence, is now required in accordance with Section 75/76 of the Act before planning permission can be sought from the competent authority.

The proposed Point Pedestrian and Cycle Bridge and Tom Clarke Bridge Widening Project is located within the foreshore area at the mouth of the River Liffey. It therefore requires a MAC under Section 75 of the Act. To support the application process, Dublin City Council (DCC) requested a MAC pre-application consultation with MARA, which took place in May 2024.

DCC was advised by MARA that the MAC application should cover both the proposed works (permanent and temporary) and the existing foreshore structures, namely the Tom Clarke Bridge and ancillary features such as the vessel collision protection structures. After considering the feedback provided by MARA, ROD, acting on behalf of DCC, prepared the relevant documentation to support the MAC application, and it was submitted to MARA in August 2024.

This is the second project in which ROD has been involved that required a MAC application to be lodged with MARA after the Dodder Public Transport Opening Bridge – part of the Ringsend to City Centre Core Bus Corridor project. In accordance with MARA guidelines, the status of the application will be decided within a 90-day timeframe.

Planning granted for works to O'Hanrahan Bridge, New Ross

Article by Yana Bersunukayeva

O'Hanrahan Bridge New Ross **montage of proposed** View.

An Bord Pleanála has approved planning for the widening and rehabilitation of O'Hanrahan Bridge in New Ross, Co Wexford. The existing nine-span bridge is 175m long and 11.6m wide. It crosses the River Barrow (and River Nore) Special Area of Conservation (SAC).

Kildare County Council (on behalf of Wexford County Council) commissioned ROD to provide engineering and environmental consultancy services for the proposed development in 2021. The scheme will include works to rehabilitate the existing bridge and to widen the bridge deck by 1m to accommodate an enhanced shared footpath / cycleway. These latter works will create a continuous pedestrian and cyclist connection between the future New Ross to Waterford ('South East') Greenway and the town of New Ross.

The initial design allowed for most of the works to be constructed from the landside and did not require permanent works within the SAC. The south-east and south-west corners of the bridge were the exception however, as they required the existing quay wall to be reconstructed up to two metres out into the SAC. These works resulted in the permanent reduction of footprint of two Qualifying Interests (QIs) of the SAC, namely the "Estuaries" and "Mudflats and sandflats not covered by seawater at low tide" – both Annex I habitats – by 82m^2 and 32 m^2 respectively. As such, the project screened in for Stage 2 Appropriate Assessment. A Natura Impact Statement (NIS) was prepared to support the planning application to An Bord, and consultations were held with the National Parks and Wildlife Service (NPWS) and Inland Fisheries Ireland (IFI) to inform the design of the project. The proposed development screened out for an Environmental Impact Assessment (EIA), and a Planning Report was instead prepared. The planning application, with associated planning documents, was submitted to An Bord in March 2023. In December 2023, An Bord issued a Request for Further Information (RFI), asking the project team to re-evaluate the option selection process for the south-east and south-west corners of the bridge to avoid any permanent loss of Annex I mudflats habitat within the SAC. In response to the RFI, the project team went back to option selection stage, and a new preferred option in the form of cantilever slabs was chosen for the south-east and south-west corners of the bridge, thereby avoiding direct impacts on mudflats within the SAC. Revised planning documents, including the NIS and the Planning Report for the updated design, were submitted in March 2024, and planning approval was granted in September 2024.

Following planning approval, ROD is currently completing the detailed design of the project.

Preliminary Piling on Narrow Water Bridge

Article by Kate Ballance

Last June, I visited the Narrow Water Bridge site in Carlingford, Co. Louth with my colleagues in the geotechnical team. We were there to supervise the coring for a preliminary test pile. It was a beautiful sunny morning. When we arrived, the site was still in the early stages of being set up, and the two prefabs that would serve as the site offices had yet to be installed. However, on our way down towards the waterfront, already some progress was evident, with a gravel road having replaced the green field that lay there only one month earlier.

On the day before our visit, the rig for the test pile socket had been set up near the main south abutment and, by the time we arrived, drilling had already begun. In fact, the rig had reached approximately four meters, and while recovery consisted of gravels in the main, GI completed in 2008 and marine GI undertaken in 2010 indicated rock at 6 meters below ground level. With the working platform higher than initially expected, the depth to the rock head was unknown.

During lunch, we discussed the history of the site, and I learned about the years of planning behind the project, the symbolic nature of the scheme, and the funding from the Irish Government's Shared Island Fund that had allowed it to move forward to construction.

After lunch, there was still no sign of rock, only larger and more angular gravel. Once the water table was struck, recovery from each run was clearly wetter, with soft clay, gravels and cobbles. While we remained hopeful of seeing rock head, our expectations were repeatedly dashed during the afternoon, with the material confirmed as granular in nature, with gravels and cobbles easily mistaken for broken rock fragments. At 6.00pm we called it a day. We were, of course, hugely disappointed not to have reached rock, but I learned a valuable lesson: ground conditions can vary regardless of nearby GI records.

Our fortunes turned the following day when the rock head was reached at just below 10 meters. The reinforcing cage was then installed, the concrete poured, and the test pile successfully cast. It was a small but important milestone in the project: the first stage in the construction of the bridge.

First stage in the construction of Narrow Water Bridge.

CIRIA Bridge Detailing Guide

Article by John Collins

Left Image: Mechanical Bearing during installation of steel girder. Right Image: Concrete bridge detailing from Herring Bridge Approach Structure.

ROD and Hewson Consulting have recently been awarded a commission to update the CIRIA Bridge Detailing Guide, which was written by the late Michael Soubry and published in 2001. The aim of the guide was to provide direction on detailing issues that follow conceptual and analytical design. Highly pragmatic in its approach, it sought to standardise a broad range of bridge details, from the size of chamfers on external corners of in-situ concrete to weathering steel water runoff strips to access galleries and bearing shelves. The guide is over 270 pages in length and includes approximately 200 figures and diagrams. It is widely used in the UK and Ireland in the detailing of new road bridges and regularly appears as a mandated requirement in public sector contracts.

While much of its guidance remains as valid today as it was back in 2001, CIRIA identified the need to update specific areas of the document to ensure its currency with newer standards. The updated guidance will, for example, reflect that integral bridges are now the norm, bridges with bearings the exception; sustainability, climate change and net zero are significant focus areas; and catering for all bridge users, notably pedestrians and cyclists, is a significant requirement. The extensive cross-referencing to other documents within the guide will also be updated as part of the commission.

ROD's John Collins and Hewson's Andrew Hodgkinson will co-author the updated guide, with the support of others within ROD and Hewson. John and Andrew will report to CIRIA's project steering group, which is made up of over 20 representatives from client organisations, consultants, contractors and product suppliers in the bridge market across the UK and Ireland.

It is testament to ROD and Hewson's standing within the industry that we have been entrusted with this project. The update will take around two to three years to complete, reflecting both the weight of the task and the need to consult widely within the industry.

About CIRIA

CIRIA – the Construction Industry Research and Information Association - is a specialist, not-for-profit body that aids knowledge transfer across the construction industry. Its work addresses industry issues, challenges and opportunities to provide business and delivery improvement. It works collaboratively across the construction industry to identify good practice, develop new approaches and identify and enable innovation. Most of its research projects and activities result in the publication of guidance documents, many of which have been adopted as the standard for excellence in their respective areas.

Independent Check of New Kingsway, Perth

Article by John Collins

Destiny Bridge's balanced cantilevers under construction over the River Tay.

Perth is one of Scotland's best-connected cities. It is situated at a key intersection on Scotland's trunk road network at the crossing of the country's longest river, the River Tay. While the southern and western parts of the city were bypassed in the 1970s and 80s respectively, the city centre has, over the past 20 years, become congested, and much through-traffic now passes over the River Tay on bridges supporting urban roads. In 2019, planning permission was granted for a 6km bypass to the north, including a three-span, post-tensioned, concrete bridge over the River Tay . The bypass is to be named "New Kingsway" and the crossing "Destiny Bridge" - names that allude to the nearby town of Scone's historical role as the coronation site of Scottish kings.

BAM Nuttall was appointed Design and Build contractor for the scheme by Perth & Kinross Council in 2021. ROD was subsequently appointed as an independent category 3 checker - under the UK's Design Manual for Roads and Bridges, CG 300 Technical approval of highway structures, for the bridge and approach embankments. Destiny Bridge has a 150m main span, 82m western span and 75m eastern span, to be constructed by balanced cantilever methodology. A large proportion of our structural modelling and analysis was focused on the construction staging to ensure that the bridge will be suitably balanced about the piers at each stage.

The site's geology is dominated by marine deposits. Larger structures, including Destiny Bridge, sit on piled foundations. ROD's geotechnical engineers analysed the piled foundations and verified the proposed cuttings and embankments including those to 2km of the realigned A9 dual carriageway. The approaches to Destiny Bridge sit on reinforced earth walls up to 15 metres tall to the west of the bridge.

Our independent check also included the following ancillary structures:

- A new integral bridge over the realigned A9 of precast prestressed W-beams. (ROD is familiar with this form of structure from our extensive design works on Ireland's interurban network.)
- A precast arch structure forming a green bridge and helping to maintain connectivity between parts of a woodland through which New Kingsway passes.
- Precast concrete culverts.

The scheme reached a significant milestone in August 2024 when the balanced cantilever sections of Destiny Bridge were joined. The New Kingsway is due to open in 2025, with an expected construction cost of around £150m.

In-situ concreting to form Destiny Bridge's superstructure.

Tay Lane Footbridge Rehabilitation Works

Article by Matt Ryan and Gavin Rundle

Tay Lane footbridge after rehabilitation works.

Essential rehabilitation works are almost complete at the N7 Tay Lane Footbridge in Rathcoole, Co Dublin. Most of the upgrade works were undertaken during a 12-week period from June to September 2024.

The 49m long, cable-stayed, steel bridge was constructed 25 years ago and allows pedestrians to safely cross the busy N7 national road. The significant upgrade works required to secure its future were funded by Transport Infrastructure Ireland (TII).

As Jons Civil Engineering Ltd's designer for the project, ROD was responsible for designing the rehabilitation works, and for ensuring the structure was stable during dismantling and reassembly. Our team also provided site supervision during critical stages of the works - in particular the cable stressing.

Challenges

- The original deck's almost perfect horizontal construction led to drainage issues and ponding across the bridge. Similar issues were encountered at ramp landings.
- Parapets on the main deck and approach ramps and stairs did not meet today's design standards, and the existing arrangement hid the main stringer beams on the ramps and stairs, making inspection of these elements impossible.
- The protective paintwork to the steel superstructure had begun to deteriorate and needed major maintenance, particularly at the access stairs where significant corrosion to the steelwork was present on the treads and risers. The anti-skid surfacing had also started to break down in some areas of the bridge
- The reinforced concrete (RC) piers supporting the bridge had cracked. If not addressed, this had the potential to cause significant long-term durability issues such as corrosion of reinforcement. (It was speculated that the cracks were the result of a restriction on horizontal movement of the bridge above the piers.)

Upgrade works

To rectify these issues, the entire structure had to be dismantled and removed offsite to steelwork subcontractor Thompson's fabrication yard in Carlow.

- The existing bridge deck plate was replaced to correct the drainage issue. A new deck, incorporating a three-metre long, vertically curved plate at midspan was fabricated. This tied into inclined plates falling towards either end of the deck. Drainage channels were added to capture water at each end of the deck.
- Parapets were raised to a minimum height of 1.25m above the walkway surface in line with today's design standards. Parapet infill panels were trimmed above the stair and ramp stringers to allow future visual inspection of these elements and to prevent a build-up of debris at these locations.
- New treads and risers were fabricated for the access stairs, as the originals were heavily corroded due to a breakdown of the original paint system.
- The existing steelwork was stripped back to bare steel and repainted. TII opted to trial a paintwork system with a fluoroethylene vinyl ether (FEVE) fluoropolymer topcoat. As a first for Irish road infrastructure, it required a departure from standards. The new paint system allows up to 60 years before major maintenance (compared to the standard 20 years) and has the potential to significantly lower life cycle maintenance cost for steel structures. If successful on Tay Lane Footbridge, it may be implemented on future projects around Ireland.
- New anti-skid surfacing was applied to the ramps, stairs and the bridge deck.
- Cracks in the RC piers were injected with resin to prevent durability issues associated with water and chloride ingress, which can lead to corrosion of the reinforcing steel.
- Slip membranes between the superstructure and substructure were replaced to allow movement under expansion and contraction and to help prevent future cracking of the piers.

How it was done

Removal of the steel approach ramps and stairs was relatively straightforward. The challenging part was the removal of the bridge itself, which took place in early June at the start of the school holidays. Following traffic management setup and night-time lane closures, the cables were destressed using hydraulic rigs before being taken down over two nights. In addition to developing the design drawings and the specification for the rehabilitation works, our design team developed models of the bridge in MIDAS to analyse the various construction stages and to demonstrate that the bridge was stable under its own self-weight without the cables. This eliminated the need for temporary supports under the main bridge deck. Once the cables were removed, the next step was the removal of the main deck. This was done by cutting and removing the top of the pylon A-frame to allow the 67-tonne deck to be lifted out in one piece using a single crane. The bottom of the pylon was then removed.

Tay Lane Link footbridge cable installation.

The reassembly of the bridge following the offsite rehabilitation works took place in late August/early September - in reverse order to the dismantling. Key challenges during this phase included ensuring all of the pieces fit together correctly and confirming the verticality of the pylon once the top and bottom halves were reconnected. Even a slight offset of one degree would have led to an imbalance of forces in the cables, resulting in additional bending in the pylon and an incorrect deck profile.

Once the main deck and pylon were safely reinstated, the cables were reinstalled. During the rehabilitation works, the cables were assessed for defects, such as corrosion and loss of section, using magnetic resonance testing. Once they were deemed safe for reuse, they were reinstalled and restressed in reverse sequence to how they had been taken down. The force in the cables was substantial; the backstays, for example, required a force of 44 tonnes per cable. As an added final check, the deck levels were measured to ensure the final profile matched the intended design.

Herring Bridge secures multiple awards in 2024

Article by Roberta Keaney

Pictured L-R: Clive Myrie, awards host; Richard Hayman, BAM Farrans Joint Venture; Grahame Bygrave, Norfolk County Council; Mark Kemp, Norfolk County Council; Joanna Lyon, WSP; Gavin Broad, Norfolk County Council; Tim Ellis, Norfolk County Council; Aonghus O'Keeffe, ROD; Paul Pawa, Norse Group.

Since its opening in February 2024, the striking twin-leaf bascule Herring Bridge in Great Yarmouth has been widely recognised for its transformative impact and its blend of innovative design, structural excellence and environmental sensitivity. It has been highly praised by professionals from across the industry, winning multiple awards and accolades for its contribution to the built environment and commitment to sustainable urban development. The awards are a testament to the exceptional level of application and achievement demonstrated by the project team, including Norfolk County Council, BAM UK & Ireland, Farrans Construction, ROD and H&H.

New Civil Engineer Bridges Awards 2024

The bridge was triumphant at the New Civil Engineer Bridges Awards 2024, which took place at the Leonardo Royal Hotel London St Paul's on 18th July. Winner of the coveted Road Bridge Project of the Year Award, it was described by the judging panel as an impressive scheme that succeeded in "enhancing community wellbeing and resilience, while blending seamlessly with the landscape and incorporating innovative construction methods."

Highways Awards 2024

Herring Bridge had the double honour of winning both the Major Project Award and the Special Merit Award at the Highways Awards 2024. These took place at the Park Plaza Westminster Bridge in London on 24th September. Speaking after collecting the award, Councillor Graham Plant, Cabinet Member for Highways, Infrastructure and Transport said "We are already seeing how the bridge is transforming travel around the town, and to see it recognised with multiple national awards is fantastic recognition for all of the team who have worked tirelessly to make it happen."

Construction Employers Federation Awards 2024

The project continued its winning streak in October, winning the Great Britain and Republic of Ireland Construction Project of the Year above £100m Award at the 25th Construction Employers' Federation (CEF) Excellence Awards, which took place at the Crowne Plaza, Belfast, on 3rd October.

British Construction Industry Awards 2024

The project faced tough competition at the British Construction Industry Awards 2024, with the shortlist for the Transport Project of the Year Award featuring several impressive schemes, including Barking Riverside Overground Station, Barking Riverside Pier, Halifax Bus Station Redevelopment, HS2 Chiltern Tunnel, London Gatwick Rapid Exit Taxiway, and University Station Redevelopment.

While the main award went to the Halifax Bus Station Redevelopment, Herring Bridge secured a highly commended certificate, much to the delight of the project team members present at the awards dinner, which was held at the JW Marriott Grosvenor House Hotel, London, on 9th October. The judges said "This project didn't just deliver a landmark structure; we were very impressed by the focus on social value, apprenticeships and engagement with young people as well as providing local employment."

Sustainability Month 2024

Article by Frances O'Kelly

During Sustainability Month 2024, our Sustainability Committee coordinated another successful series of lunchtime presentations aimed at information sharing and improving the sustainability outcomes of our projects. The month-long focus on sustainability provides a forum for debate and discussion on the issues and opportunities in terms of sustainability leadership, climate change and best practices and other trends influencing our sector. A series of lunchtime presentations to ROD staff were delivered (primarily by our colleagues), including:

- **ROD's Draft Carbon Reduction Plan** - presented by Rico Raymundo;
- **ROD's Draft Company Travel Policy** - presented by Frances O'Kelly;
- **Waste Not, Want Not: Segregation, Recycling, and Tips** – presented by Emeline LaFortune;
- **How to reduce your carbon footprint** – presented by Adrian Balcombe, Sustainability manager of West Yorkshire Combined Authority;
- **Carbon Accounting across ROD** - presented by John Daly;
- '**Use Less Stuff**' - **engineering in an emergency** - presented by Peter Campbell;
- **Nature Restoration Law** presented by Mark Gilligan and Evan Browne; and
- **An Update on ROD's Integrated Management System** - presented by Joe Kelly.

In addition to coordinating the presentation series, the sustainability committee ran weekly sustainability quizzes to help increase staff engagement. The weekly sustainability themed quizzes tested their knowledge on the variety of subjects presented on during the month. In lieu of prizes or creating more unnecessary stuff, we tried to entice people to engage and help raise funds supported by ROD for two worthy environmental charities Sonairte based in Dublin and Yorkshire Dales Millennium Trust in the UK. Staff helped raised a total of €685 which was increased by ROD to €1000. Rebecca Bailey and Michelle also managed our second annual clothing donation drive in support of Enable Ireland, which raised €300.

Sonairte is an environmental charity established in 1988, which runs Sonairte Visitor Eco-Centre – a visitor experience which promotes a love of the outdoors, organic produce, eco-awareness and sustainable living. The centre is run almost entirely by dedicated volunteers, together with Tus and Community Employment (CE) scheme hosted staff.

Pictured L-R: Niall Hanratty, Jane Stafford, Erin Gray, Ilaria Bernardini, John Daly.

Yorkshire Dales Millennium Trust is a small charity doing big things in the Yorkshire Dales. It helps to look after some of the most spectacular and precious landscapes in England and support the communities that live here. The Trust works to conserve and restore native habitats and wildlife – like wildflower-rich meadows, wetlands and broadleaf woodlands. Its projects safeguard and celebrate the special landscape and its unique heritage – from limestone caves to dry stone walls. Its work with young people is helping to create a generation who care about the environment – with inspiring events, educational activities and a rural apprenticeship scheme.

Enable Ireland provides services to over 13,000 children and adults with disabilities and their families from over 40 locations in 14 counties. Covering childhood to adulthood, its expert teams work with the individual and their family on a plan for each life stage.

Hellfire: Into the woods and out of this world

Article by Andrew Thomson

Hellfire Club ruins, Dublin.

In November 2024, a key milestone was reached in the delivery of the Hellfire project with the completion of conservation works at Massy's Wood, which lies at the foot of the Dublin Mountains, close to Rathfarnham. The conservation works were a key component of the project and aimed to protect the existing structures in Massy's Wood, particularly its walled garden, which is considered an integral part of the historical fabric of the area.

The Hellfire Project is a major piece of tourism infrastructure that will augment the Dublin Mountains' status as a captivating destination for leisure, tourism and cultural experiences. Led by South Dublin County Council and supported by Coillte, it will create a new gateway to the built and natural heritage of the Dublin Mountains, offering visitors an insight into the geography, archaeology and history of the area, including Montpelier Hill, Massy's Wood and the Hellfire Club, as well as the wider Dublin Mountains region.

Having supported South Dublin County Council in securing planning permission for the project in October 2022, at which time it was known as the Dublin Mountains Visitor Centre project, ROD was delighted to have been appointed as Project Manager and Design Team Lead for the scheme in 2023. We have assembled a multidisciplinary team of talented professionals to support the delivery of the project, including Cunnane Stratton Reynolds Landscape Architects, Paul Keogh Architects, Mulcahy McDonagh & Partners Quantity Surveyors, DMW Creative, Courtney Deery Heritage Consultancy, 7L Architects and Varming Consulting Engineers.

Key scheme features include:

- A visitor centre providing information, exhibitions and a café;
- A treetop canopy walkway providing access over the public road from Hellfire to Massy's Wood;
- Restoration and conservation of the historic hellfire club;
- Conservation works to architectural and archaeological heritage features on the site;
- Provision of new walks and trails and improvements to existing walks and trails;
- Road improvements and construction of a new footpath; and
- Environmental works.

Conservation works at Massy's Wood and walled garden

The first element of the project to proceed has been conservation works to the existing heritage structures in Massy's Wood, which lies in the shadow of Montpelier Hill and is a treasure-trove of natural and built heritage. The general area is named Killakee, derived from the Irish Coill an Chaoich, meaning the 'wood of the blind man'. The

Massy's Estate, Dublin.

name Massy's Wood comes from the Massy Family who owned the estate and lived in Killakee House in the late nineteenth and early twentieth centuries.

Killakee House was built in 1806 and boasted one of Ireland's finest Victorian gardens. The estate fell into neglect in the early 1900s however, and the house was demolished in 1941, leaving the extensive walled garden to decay. Today, the garden is smothered by over-mature planting, ivy, self-seeded trees and invasive shrubs to both the interior and exterior. Former paved paths are now muddy tracks where walkers still make their way through the garden; stone steps are hidden in the thicket; and any sense of formality has been lost. Wall heads have been lost by vegetation (predominantly ivy and laurel) to all sides; the east entrance arch has collapsed; and the glasshouses and follies attached to the north wall of the garden have been much reduced. If left unchecked, the vegetation will continue to displace stonework and allow the garden to fall further into ruin.

Conservation works for Massy's Wood and its walled garden included:

- Surviving walls and planting relating to the landscape design by the White family, Ninian Niven and Richard Turner were preserved. Repairs were carried out using lime mortar and specialist conservation masonry repair techniques.
- Fallen bricks and stones left around the wall bases were retrieved and used for consolidating and repairing the walls.
- Encroaching ivy, invasive species and shrubs were removed to access the walls and to prevent further loss of the historic fabric.
- Surviving decorative stone to the grotto were restored in situ and consolidated with matching stone.
- Rough racking and stone pinning of exposed wall heads were undertaken where the walls are uneven.
- Consolidation of low-level voids and breaches to the walls at low level allowed the existing routes through the walled garden to be rationalised.
- Wall heads and arches were repaired.
- Loose or missing joints were raked out, pinned and pointed.

Speaking about the conservation works, South Dublin County Council Chief Executive Colm Ward said "The conservation work at Massy's Wood is an important milestone in safeguarding the historic character of the area and bringing it to life for the local community and visitors for generations to come." Mark Carlin, MD of Coillte Forest, added: "Coillte is delighted to support Hellfire and the conservation works at Massy's Wood. It aligns with Coillte's ambition to balance and deliver the multiple benefits of forests for climate, nature, wood and people by creating and enhancing sustainable, accessible, and enjoyable outdoor experiences.''

Meakstown Sports Hall and Community Centre reaches completion

Article by Nicholas McCann

Aerial view of Meakstown Sports Hall, Lanesborough, Meakstown, Dublin.

The Meakstown Sports Hall and Community Centre at Lanesborough Park in Meakstown, Dublin 11 reached completion in August 2024. The energy-efficient, circular building extends to approximately 1,000m^2 and boasts a three-court sports hall and four large, multipurpose rooms for a range of activities, including dance classes, yoga sessions, Pilates, training workshops and community meetings. The building's circular plan form creates a natural flow through the green space and minimises unsupervised spaces. Single storey throughout, its main sports hall is positioned central to the plan, with secondary rooms wrapping around on all sides.

ROD was part of an integrated design team appointed by Fingal County Council to design and deliver the project. The team, led by Henchion Reuter Architects, also included Matt O'Mahony & Associates (M&E) and Walsh Associates (QS). Works commenced on site in February 2023 following the appointment of Vision Contracting Ltd as the main contractor.

The development is nestled in the southeastern corner of Lanesborough Park. The scale and height of the building required careful consideration due to its parkland setting and to it being overlooked on two sides by residential properties. To soften the impact of the new building profile, the team adopted a curved roof geometry and minimal structural depth for the 16m span roof. This was achieved through the adoption and careful arrangement of a series of straight steel portal frames, with careful consideration of the portal frame geometry and the rafter-roof deck interface.

Construction was primarily comprised of blockwork walls and reinforced concrete columns. An in-situ reinforced concrete roof slab was designed to allow for openings for vertical services and to incorporate a curved steel roof section above the ball court in the centre of the building. The curved steel section of the roof supports roof lights that provide plenty of natural light to the ball court below and a metal deck that accommodated a green roof system. The green roof is one of several sustainable drainage systems incorporated into the design to offset the impact of the new building on the local environment, with permeable paving and localised basins in green areas among the others.

New €6.5m domestic violence refuge opens in Wexford

Article by Aoife O'Keeffe

Minister for Justice, Helen McEntee, pictured at the opening of the new domestic violence refuge in Wexford. Image courtesy of OBFA architects.

A new €6.5m domestic violence refuge opened in Wexford on 12th September 2024. The facility was developed by Wexford Women's Refuge in co-operation with Wexford County Council. It comprises 12 twin bedrooms, communal kitchen/dining and sitting rooms, safe play areas for children, staff support offices and additional multipurpose spaces.

Wexford is the first of 18 "priority locations" to complete construction of a new domestic violence refuge as part of the government's plan to double the number of refuge units across Ireland to 280. The project was delivered by an integrated design team led by OBFA Architects with ROD acting as civil and structural engineer.

The principally three-storey structure consists of two rectangular blocks connected and distributed linearly to create a natural boundary to the public realm. This ensures the privacy of the gardens and courtyard onto which the apartments and communal spaces open. Large, glazed areas to the front of the structure make for light and airy corridors, while the perforated brick details on the outer leaf are aesthetically pleasing.

A hybrid structural solution for the building was developed, with precast planks supported on load-bearing masonry, supplemented by beams where necessary. All of the bedrooms are located to the rear of the building, overlooking the gardens. Due to the overall length of the structure, an expansion joint was required for movement. Sustainable urban drainage system features incorporated into the design include an attenuation tank, raised planters, oversized pipes and green roofs.

The sloping rock profile posed the most significant design challenge for this project. Rock was found at 300mm below ground level at some locations while it was over 10m deep in others. As a result, the foundations required piles and strip/pad footings on different parts of the site.

The facility was funded through the Capital Assistance Fund and Cuan, the new statutory agency to combat domestic, sexual and gender-based violence.

5 minutes with Gareth Mitchell

I was born in Canada but grew up in Zimbabwe in southern Africa. My father was the provincial road engineer in Matabeleland and was responsible for all the civil engineering works undertaken in the province. While he would often take me to view the projects he was overseeing, it was a site visit to see the refurbishment of Victoria Falls Bridge that really stands out in my memory. The bridge was constructed in 1905 to carry rail, road, and foot traffic between Zambia and Zimbabwe but had been closed for almost 15 years during the civil war in Rhodesia (1964-1979). Seeing this magnificent crossing of the Zambezi River restored following the cessation of the war played a big part in my decision to follow my father's footsteps into civil engineering.

When I was 14 years old, I moved to the UK, where I finished my secondary school education. Leaving Africa was difficult, and even though I haven't been back to Zimbabwe since 1996, I will always consider it home. I graduated with a degree in civil engineering from the University of Portsmouth in 1993. There wasn't a lot of work for engineers in the UK at the time, so I found a job with a Kuwaiti engineering company based in Cyprus. The company was working on projects funded by the Kuwait Fund for Arab Economic Development, which was created in the wake of the Iraqi invasion of Kuwait to invest Kuwait's oil wealth in developing countries rather than risk it being trapped inside the country in the event of another war. Over the next seven years, I travelled extensively, working on projects in Botswana, Mozambique, Senegal and Malawi, amongst other parts of Africa. With so much travel, often at short notice and for extended periods of time, it was difficult to build a settled life in Cyprus, so I decided that it was time to move somewhere I could lay down roots.

I contacted several recruitment agencies back in the UK, one of which suggested I consider job opportunities in Ireland, as the country was in the middle of a boom, and there was plenty of work for experienced engineers. The agency put me in touch with Garry Smyth, ROD's then director of roads, and he and I spoke over the phone in late 1999. Garry was enthusiastic about the company's growth potential, given its various contract awards, and as Ireland was as close to Cyprus as the UK, I accepted his job offer and rang in the new millennium with a new job, and in a new country.

When I joined ROD, one of the first projects I was involved in was the Design Manual for Roads and Bridges (DMRB), which immediately appealed to me, as it spoke to my road geometry background. I later joined the project team on the Enfield Relief Road in Co. Meath, which was part of the N4/M4 Kilcock to Kinnegad scheme. Garry was leading the project, and I was involved in determining the route and the alignment. Not long after, I was seconded to RIADA Consult, a consortium of five consultancies appointed by Westmeath County Council to devise the route for the N6/M6 Kinnegad to Athlone Road scheme. I spent the next few years working on that project with representatives from Parkman - Carl Bro - Punch, Mott MacDonald - Ewbank O Heocha, PB Kennedy & Donkin Ltd and WSP - Ryan Hanley. Working with colleagues from different consultancies, each with their own objectives and issues, was a new experience for me, and made me more appreciative of the ROD team when the time came for me to go back to the Sandyford office.

Between 2000 and 2008, I worked on big and small road projects and got involved in several road safety schemes. By that stage, I had been in a design office for most of my career, with only a couple of weeks at a time spent on site, so when an opportunity presented itself in 2009 for me to spend 18 months on the N9 Powerstown to Knocktopher scheme as Senior Resident Engineer for works, I took it with both hands. Life on site is less regimented than in the office - more flexible. However, you need to be able to react quickly to the issues that confront you, because time is money when you are on site. This can be stressful, as some contractors are more willing to work with you to find a solution to a problem than others.

Since 2010, I've moved between the design office and site offices, which has allowed me to avoid being pigeon-holed as a road designer. I worked on the N3 Butlersbridge to Belturbet Bypass, spending weekdays in Cavan and my weekends at home in Wicklow. I also worked on the Sutton to Sandycove Cycleway and Footway; the N11 Parallel Service Road in Kilmacanogue; and the Thomas Street Refurbishment scheme. And for the past three years, I've been alternating between the office and the M50 motorway site offices, working as Senior Resident Engineer on the Motorway Traffic Flow Optimisation (MTFO) ITS Deployment Contract.

As a civil engineer, my main areas of interest are standards, road geometry, pavement design and road safety. I've been involved in road safety for 23 years, and I'm one of the TII-approved Road Safety Auditors in ROD. I've completed 120 Road Safety Audits, 75 as team leader.

You could call me a 'Jack of all trades', given my wide range of experience and knowledge. I enjoy answering questions related to pavements, safety barriers and road geometry in general, which explains why being involved in the RIBGEOM (Risk-based Geometric Design) scheme for TII appealed to me. The scheme seeks to develop a methodology for the analysis of geometry-related collision risk on Ireland's national route road network. As part of the project, Séamus MacGearailt and I visited various pilot sites identified by TII based on pavement issues and/or high collision rates. We reviewed the collision data, looked at the geometry and examined commonality in the types of incident at those locations. Our goal? - to develop a design tool that can be used to inform route improvement schemes based on risk, rather than purely on standards - with the aim of developing consistent geometric layouts along routes.

My main passion outside of work is parkrun, a collection of five-kilometre events for runners, walkers and volunteers that take place every Saturday morning at more than 2,000 locations in 22 countries across five continents. I took part in my first parkrun in Marlay Park in 2013 when I was training for the Dublin Marathon and, since then, I've become a huge advocate of its social and health benefits. I've run in 216 parkrun events across nine countries, and spent six years as the event director of Gorey parkrun, which boasts between 140 and 150 participants every Saturday. I met my partner and made many good friends through parkrun, and more recently, I've set up an ROD parkrun Group. The group is growing in number, and I am delighted to see my colleagues, including those in our Otley office, participating, as it really is a wonderful way to spend a Saturday morning.

New Starters

Aoife O'Sullivan

Aoife graduated with a BAI in Civil, Structural and Environmental Engineering from Trinity College Dublin (TCD) this year and joined our graduate programme in August. She has a keen interest in transportation engineering, inspired in part by several student placements spent with our transportation team in recent years. Her final year thesis examined whether the installation of a ramp metering system on Junction 4 of the M50 motorway could be used to delay the onset of congestion. In her spare time, Aoife enjoys reading, cooking and playing Gaelic Football.

Cian Ó Cathasaigh

Cian joined our Intelligent Transport Systems (ITS) team on a six-month internship in June. The internship forms part of an ME in Civil Engineering with Business he is undertaking at University College Dublin (UCD). Cian is already making plans to join our graduate programme in September 2025 but, in the meantime, he is delighted to be putting the knowledge he gained during his undergraduate studies at UCD to work on our ITS projects. He is a big Tottenham Hotspur fan, and in his spare time, he likes to travel and play hurling.

Kai Jackson

Kai joined ROD as a junior technician after completing the Leaving Certificate in June. He is settling into our bridges team well and looking forward to gaining industry knowledge while undertaking a part-time Bachelor of Engineering degree at TU Dublin. Kai is interested in music and enjoys reading, playing rugby and spending time with his friends.

Lutfor Khan

Lutfor joined our UK team as a senior design engineer last May. Prior to joining ROD, he worked in the geotechnical engineering field for WSP, Jacobs and AECOM, and as a senior formwork designer for PERI UK. Lutfor earned a doctorate in civil engineering from University of Greenwich, London, in 2013. Geotechnical engineering is his passion, but he also enjoys playing various outdoor games, taking day trips and travelling.

Marcus Hanson

Marcus joined our UK team as a graduate engineer in August, having recently earned an MEng in Civil Engineering with Transport from the University of Leeds. During his studies, he gained industry experience working onsite with JN Bentley and alongside design engineers in WSP. Now part of our highways team in Leeds, Marcus is enjoying expanding his knowledge through working with ROD's multidisciplinary teams. In his free time, he enjoys day trips, nights out and travelling.

Susmita Paul

Susmita joined ROD as a traffic modeller/planner in June 2024. She holds an MPlan in Urban and Regional Planning from the School of Planning and Architecture, Vijaywada, India, and an MSc in Sustainable Finance from UCD Smurfit School in Dublin. A strong academic, Susmita has received numerous educational scholarships and awards over the years and has contributed to several publications. Prior to joining ROD, she worked as an urban planner and technical consultant on urban and critical infrastructure projects. In addition to her professional pursuits, Susmita is an artist and classical dancer with a passion for travel.

Zara Craig

Zara joined our transportation team in Dublin on a one-year internship in September. It was through our work on the A6 Dungiven to Drumahoe dualling scheme that ROD first caught Zara's attention. She had watched the construction of the scheme with particular interest from her home in Derry. After completing her internship, Zara plans to return to Loughborough University in Leicestershire, England to complete a master's degree in civil engineering. In the meantime, she is enjoying working with us while making time for her favourite pastimes, playing cricket and socialising.

Pawan Rana

Pawan joined our bridges team as a graduate engineer in September. He is a graduate of the University of Bristol, UK, where he earned an MSc in Earthquake Engineering and Infrastructure Resilience. Prior to joining ROD, Pawan spent two years in Nepal, working as a part of a structural design team on the seismic design of buildings and structures. In his free time, he enjoys hiking, exploring nature and playing melodies on his guitar.

Louisa Tempest

Louisa joined our UK team as a bookkeeper in September, after a break of almost 17 years from office life. During this period, she brought up two children and worked as a bookkeeper in her partner's business. Prior to taking her career break, Louisa worked for several law firms across England. She shares a passion for horse riding with her daughter, enjoys watching her son play football and cricket, and spends her free time walking her dog and socialising with family and friends.

Niall Hanratty

Niall joined ROD as a graduate engineer in September and is currently working with our environmental team in Dublin as part of his graduate rotation programme. He was born and raised in Athy but moved to Dublin to study structural engineering at UCD, where he recently earned an ME in Structural Engineering and Architecture. Niall has a keen interest in sustainable methods of construction and wrote his master's thesis on low carbon 3D printed concrete. In his spare time, he enjoys cycling, reading and visiting historic buildings around Dublin.

Fionn Manning

Fionn completed the Leaving Certificate in June and joined our trainee technician programme in September. He attended St Kevin's College, Ballygall, and was encouraged to apply for the programme by a talk given by our Technician Associate Stuart Cushion to the sixth-year students in his school. Between working in ROD and studying civil engineering part-time at TU Dublin, Fionn is kept busy, but in his free time, he enjoys sport and spending time with friends and family.

Usman Khan

Usman joined ROD as a graduate engineer in July and is working with our transportation team in Leeds. He started his career journey as a civil engineering apprentice, working as a technician whilst studying part-time at Bradford College and later Leeds Beckett University. As such, Usman brings more than five years' industry experience to the role. In his spare time, he enjoys football, going to the gym and gaming.

New Starters

Michael Murphy

Michael joined ROD as a Resident Engineer on the Narrow Water Bridge project in Co Louth. This is his first experience of working on behalf of the client, as he had previously worked for various contractors across Ireland and the UK. Michael has considerable experience of civil engineering projects including, most recently, pavement rehabilitation and infrastructure works for DAA, working for Sisk. He has also worked on a wide range of large building projects, including schools, hospitals, office blocks, and student accommodation. Michael's interests include GAA, golf and going to live music concerts.

Vinicius Lemos

Vinicius joined ROD's buildings team in September after completing his Leaving Certificate during the summer. A trainee technician, he is learning from our experienced technicians and engineers in Sandyford while studying part-time in TU Dublin. Vinicius has a passion for music and skateboarding and enjoys playing basketball and socialising with friends.

Prerna Singh

Prerna joined our geotechnical team as a graduate engineer in August. Originally from India, she earned a PhD in Geotechnical Engineering from the Indian Institute of Technology, Delhi and also holds a master's in earthquake engineering from the Indian Institute of Technology Roorkee. Her previous research includes a finite and discrete element numerical study of active earth thrust on retaining walls. Prerna recently moved to Ireland. In her spare time, she enjoys exploring new places, trying new foods, watching movies and spending time with family.

Nazeem Uddin

Nazeem joined ROD as a graduate engineer in June 2024 and is based in our Leeds office. He is working with our water team, building his knowledge of hydrology and hydrogeology. Nazeem gained a BSc in Civil Engineering from Leeds Beckett University in 2023. In his spare time, he loves going to the gym, Mauy Thai training and eating out. His hobbies also include travelling, playing sports and learning new things.

Joe Egglestone

Joe joined ROD's transportation team in September and is based in our Leeds office. A senior highways engineer, he has over 11 years' experience working on local authority and national highways projects across the UK. He started his career as a junior technician apprentice, completing his degree apprenticeship and gaining a BSc in civil engineering from Leeds Beckett University in 2020. He achieved Incorporated status with the Institution of Civil Engineers in 2022. In his spare time, Joe enjoys cycling, going to the gym, walking his dog and watching the mighty Leeds United play.

Erin Gray

Erin joined our bridges team as an intern in June. The internship forms part of an ME in Civil Engineering with Business she is undertaking at UCD. Erin recently graduated with a BSc in Civil Engineering from UCD and is enjoying the transition from student to working life. A proud Louth woman, she enjoys the outdoors, socialising, sea swimming and travelling.

Clodagh Rea

Clodagh joined our graduate programme in September, slotting seamlessly into our transportation team, with whom she had previously worked as a student intern last summer. She graduated with an ME in Civil, Structural & Environmental Engineering from UCD this year. Her final-year thesis analysed accessibility levels and inefficiencies in rural public transport in Ireland, with a focus on the needs of those attending HSE Disability Day Services in Co Mayo. Clodagh is a big sports fan, enjoying rugby in particular, and has a passion for travelling.

Adam Kumar

Adam joined ROD as a trainee technician in September. Although fresh out of secondary school, Adam is settling well into office life in Sandyford and enjoying the practical nature of his work. He is studying part-time at TU Dublin with the support of ROD and his colleagues in the transportation team. In his spare time, Adam enjoys watching movies, going to concerts and spending time with friends.

Killian McLoughlin

Killian joined our graduate programme in September. He is a graduate of TU Dublin, where he earned a BE in Structural Engineering this year. Killian is happy to be working alongside a team of seasoned engineers in our buildings team and for the opportunity to put what he learned in college to good use. His hobbies and interests include getting out into nature, emerging technologies and adventures of discovery.

Samira Islam

Samira joined ROD as a graduate engineer in September and is now working with our transportation team in Dublin. Samira is Bangladeshi but was born and raised in Saudi Arabia. She lived in Kuala Lumpur, Malaysia for five years, during which time she gained a BEng (Hons) in Civil Engineering from Limkokwing University of Creative Technology. Two years ago, she moved to Dublin to pursue an MEng in Civil, Structural and Environmental Engineering at UCD, which she completed this year. Samira has worked as an intern in several engineering companies in Saudi Arabia, Malaysia and Ireland. In her free time, she enjoys hiking, sightseeing and visiting new restaurants to explore different cuisines.

Conall Bird

Conall joined ROD on an intern in June. His six-month internship forms part of an ME in Civil Engineering with Business he is undertaking at UCD. Conall graduated with a BSc in Civil Engineering from UCD in 2023 and is hoping to pursue a career in structural engineering after university. Outside of work and college, Conall enjoys playing rugby for Old Belvedere Rugby club.

John Cody

John joined ROD as a senior hydrologist in May. He spent his early career in Africa and Asia, where he worked for the United Nations and several humanitarian NGOs on water supply, irrigation and flood risk management and response projects. John has extensive experience in water supply, water resources engineering and environmental monitoring, and since returning to Ireland in 2012, he has worked as a hydrologist with the National Parks and Wildlife Service and as an environmental scientist in the consultancy sector. He holds an MSc in Hydrology for Environmental Management from Imperial College London; a BSc Hons (Open) from the Open University; and a Diploma in Pollution Control from the Open University. In his spare time, John enjoys landscape photography.

New Starters

Anthony O'Connor

Anthony joined our internship programme in June. The six-month internship forms part of an ME in Civil Engineering with Business he is undertaking at UCD. Anthony is building valuable experience on site at the Waterford City Public Infrastructure project and gaining exposure to different aspects of civil engineering. In his spare time, he enjoys playing GAA and soccer and going for long walks on the beach.

Ashwin Mohan

Ashwin joined ROD as a design engineer in September and is based in our Sandyford office. He holds a MTech in Highway Technology and a BE in Civil Engineering from Visvesvaraya Technological University (VTU) in Karnataka, India. Prior to joining ROD, Ashwin spent eight years working on urban and rural highway projects, including SMART CITY initiatives, across Europe, the UK and India. In his free time, he enjoys travelling, hiking, cooking and watching movies.

Punit Giria

Punit joined our transportation team as a principal engineer in September. He is based in our Woodford office in north Dublin. Punit has 14 years' experience in the design and project management of highway and road schemes in the UK and Ireland. He has worked on a range of public infrastructure and private development projects, from smart motorways to cycleway and mobility improvement schemes. He has also been involved in resource management and operations. A chartered engineer, Punit holds an MBA in Operations and a BEng in Civil Engineering. He is a part-time lecturer in the School of Civil and Structural Engineering at TU Dublin. In his free time, Punit enjoys travelling, watching TV and listening to music.

H. Berk Gursoy

Berk joined our geotechnical team as a design engineer in January 2024. Originally from Turkey, he holds a BSc in Civil Engineering from Middle East Technical University, Ankara. Berk specialises in foundation systems, ground improvement techniques, deep excavations and retaining structures calculations for industrial and infrastructure projects. He combines experience in transportation, energy infrastructure, petroleum, oil and gas, steel fabrication and heavy industrial facilities with skill in the use of specialised geotechnical software. In his spare time, Berk has a passion for motorcycles and enjoys exploring new places and spending time with his cat.

Neil Byrne

Neil joined our transportation team as a design engineer in November.
He graduated with a BEng in Civil Engineering from TU Dublin in 2020 and has four years' experience working on a variety of commercial and residential projects across Ireland.
Neil is enjoying working with the transportation team, getting involved in projects, learning new skills and bonding with his colleagues. In his spare time, he enjoys all sports, especially hockey and football.

Mark Glaysher

Mark recently joined our Cork office as a Technical Director, having relocated from London, where he worked for the UK's rail infrastructure owner, Network Rail, for 20 years. During this time, he contributed to several of Europe's largest infrastructure projects, including serving as head of consents and sustainability on the iconic Elizabeth Line (Crossrail 1). Mark is excited to develop our growing portfolio of projects in Cork and strengthen our presence in the region. He is a keen DIY enthusiast.

Junaid Asghar

Junaid joined our Energy group as a senior electrical engineer in November. He brings over 11 years' experience working on high voltage energy infrastructure projects to the team. Junaid's expertise lies in the design and project management of high voltage grid stations for public and private sector projects. He is a graduate of University of Engineering & Technology, Lahore, Pakistan. When not working, Junaid enjoys spending quality time with family and friends, playing sports and watching movies.

Maha Riad

Maha joined ROD's data analytics team in October. Born and raised in Egypt, she graduated with a degree in Informatics and Computer Science from the British University in Egypt in 2014. Since then, Maha has worked extensively across academia, research and industry. She recently submitted her doctoral thesis to the School of Computer Science, UCD. Her research focused on artificial intelligence and involved integrating various machine learning, reasoning, optimisation and coordination techniques within intelligent transportation system scenarios. In her free time, Maha enjoys spending time with friends and family, running, cooking and exploring new countries.

Lina Hymmen

Lina joined the environmental team as a graduate environmental planner in November. Originally from Germany, she studied biology at Johannes Gutenberg University, Mainz and earned a master's degree in environmental management and physical planning from Stockholm University in Sweden. Lina is passionate about sustainable urban development, the protection of biodiversity, and regenerative agriculture. In her spare time, she enjoys long hikes in nature, exploring new cafés, and getting creative.

Kusuma Gopala Reddy

Kusuma joined our transportation team as a design engineer in October and is working on the Cork Area Commuter Rail project. Originally from Bangalore in India, she holds a master's degree in highway technology and a bachelor's degree in civil engineering. Kusuma has over seven years' experience working on rural highway projects and active travel and roundabout design schemes across the UK, Europe and the Middle East. In her leisure time, she enjoys trekking, travelling, playing badminton and cooking.

Aymen Rzigui

Aymen joined our transportation team as a design engineer in October. Originally from Tunisia, he spent the past six years working on the design of infrastructure projects across France, the UK, the UAE and Senegal. Aymen recently moved to Ireland from Prague, Czech Republic, where he worked for two years with a global design consultancy. While his main areas of expertise are modelling and design, he is looking forward to developing his knowledge of the broader aspects of civil engineering at ROD. In his spare time, Aymen enjoys martial arts, going to the gym and learning foreign languages.

ROD Gallery

25th Anniversary of ROD AECOM Alliance

Pictured L-R: Seamus MacGearailt, Derval Cummins, Barry Corrigan, Eoin Greene, Eoin O'Catháin, John Holmes, Jim Thorpe, Lawrence Brett.

2024 TUD Careers Fair

Pictured L-R: Kate Ballance, Nicholas McCann, Cristina Tanasie.

Otley Mini Golf Evening

Pictured L-R: Bailey Thoresby, Oliver Scales, Marcus Hanson, Michael Chung Bottom row pictured l-r: Jim Thorpe, Pradeep Kancharla, Rob McCartney.

2024 UCD careers fair

Pictured L-R: Niamh Moore, Elaine Cogley, Gavin Rundle, Christopher Fitzsimons.

ITRA League - Hot ROD's Tag Rugby team Cup Winners

Pictured L-R: Nicholas McCann, James Brindley, Conall Bird.

ROD weekend trip to Lahinch

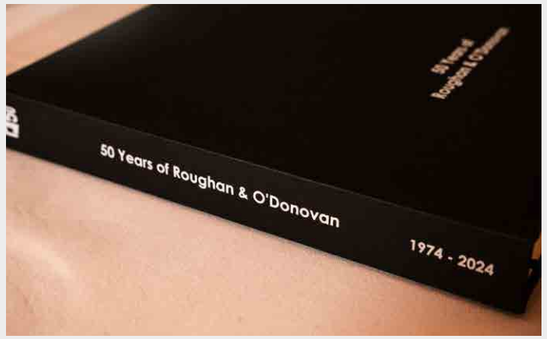
Pictured L-R: Evan Browne, Moreno Stellini, Ernest Etim, Elisa Teillet, Emeline Lafortune, Claire Cable, Yana Bersunukayeva.

ROD 50th Anniversary Celebrations at the Shelbourne hotel.

ROD 50th Anniversary Celebrations at the Shelbourne hotel.

Function room at the Shelbourne.

Specially designed gift bags for the event



Commemorative ROD50 hardback book

The book tells the story of the people and the projects that have shaped the company and each member of staff received a copy.

Jim Thorpe

After Dinner Entertainment

The Prickly Pears

50th Anniversary
Roughan & O'Donovan
1974 - 2024

Head Office
Arena House
Arena Road
Sandyford, Dublin 18
D18 V8P6, Ireland
+353 1 294 0800
info@rod.ie
www.rod.ie

Santry Office
Unit 2.1, Block 2,
Woodford Business Park
Turnapin Little, Dublin 17
D17 E925
+353 1 294 0800
info@rod.ie
www.rod.ie

Cork Office
Office 430,
1 Horgan's Quay,
Cork,
T23 PPT8
+353 1 294 0800
info@rod.ie
www.rod.ie

Leeds Office
82-87 Pegholme
Wharfebank Mills
Ilkley Road, Otley
LS21 3JP, UK
+44 (0) 113 360 1720
contact@rod.group
www.rod.group