



BODLEIAN **NEWS**

Winter 2016 edition



ROD Winter 2016

Harry Meighan | Managing Director

Welcome to the Winter 2016 edition of ROD NEWS. In a year which witnessed Brexit trumped by The Donald, we certainly live in interesting times!

The articles written by our people in this newsletter highlight the areas where government capital spending in Ireland is being directed. While all such investment is welcomed and undoubtedly satisfies cost-benefit considerations, it is somewhat concerning that spending appears to be directed primarily towards those areas which generated most political debate in the last general election. The concern is that we will repeat the same mistakes as in the recent past, where investment decisions were made for reasons of political expediency rather than on the basis of long-term sustainable development that would benefit present and future generations.

In a letter to the Irish Times in September prior to Budget 2017, the Association of Consulting Engineers of Ireland wrote:

High-quality infrastructure is an important element of a modern society and economy. Investment in public infrastructure is vital for the competitiveness of the economy, as well as to underpin social cohesion through the provision of key services in the form of schools, health facilities, public transport and housing. The current capital plan "Building on Recovery" provides for €42 billion of capital investment for the period 2016-2021. In addition, the Government proposes an additional €5.1 billion in capital spending over this period, which is welcomed. However, the 2016 spend, together with that proposed for 2017, is well below what is required in a healthy economy, and is much less than average EU funding levels.

The ACEI supports Engineers Ireland's call for the establishment of a single entity charged with prioritising integrated infrastructure development in this country, namely a national infrastructural council. This entity should be established on a statutory basis with the remit of providing government with expert, independent advice on infrastructural issues. The council should set out a clear, strategic vision and priorities for future infrastructure, in order to unlock economic potential and ensure that growth and opportunities are distributed across the country, thus boosting productivity and competitiveness.

The establishment of such an infrastructural council would mirror the National Infrastructure Commission in the UK,

which is to become a permanent executive agency in January 2017. The NIC is geared towards long term strategic decision-making regarding future infrastructure needs, rather than capital investment plans that revolve around election cycles. In Ireland we already have the example of the Irish Fiscal Advisory Council, whose purposes include assessing whether the fiscal stance of the Government is conducive to prudent economic management.

The Fiscal Assessment Report in November notes that the Building and Construction sector is growing, but from a relatively low base. The CSO statistics released on 8th December identify that Building and Construction volumes grew by 19.4% annually, with residential building growing by 30.8% and non-residential building by 27.8%. However, for Q3 the volume of civil engineering work fell by 1.4%. As was the case during the unsustainable Celtic Tiger development, infrastructure development is lagging behind residential and non-residential building.

I live in a town in North County Dublin where the population grew from 1,868 to 6,778 between 1996 and 2011. In that period and since, there has been no improvement in the local transportation infrastructure. A long planned local distributor road has been stalled for lack of capital and the local authority is now seeking funding from the Local Infrastructure Housing Activation Fund. The LIHAF amounts to €50m government spending per annum over 3 years matched by €50m from local authorities. 21 local authorities applied to the scheme following the Minister's Call for Proposals in August. The LIHAF is clearly inadequate and it is somewhat absurd that necessary infrastructure can only be advanced if it enables large housing development areas.

The National Asset Management Agency has been mandated by government to fund the development of 20,000 residential units and office accommodation in the Dublin Docklands SDZ over the next 5 years. NAMA's peak funding outlay for this development could be as much as €2.5billion. [This mandate is the subject of a complaint to the European Commission asserting illegal state aid.] Perhaps it is worth considering whether NAMA should be more widely mandated to fund local infrastructure (to activate housing), so augmenting the LIHAF.

ROD wishes all our clients, colleagues and friends a peaceful Christmas and best wishes for less interesting times in 2017!

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Meet the New Crew

Major milestone reached in New Wear Crossing project



A significant project milestone was reached in early October with the first stage of the two phase deck launch on this 336m long cable stayed river crossing. The 2,500t 172m long section of the bridge deck positioned on the south bank of the river was pulled with hydraulic jacks 110m across a series of temporary supports stopping short of the foundation for the cable supporting pylon at the centre of the river. This 10-hour operation cleared the way for the second phase of deck assembly to commence in preparation for the final stage of the launch in 2017.

ROD in joint venture with Buro Happold has been involved on the project from concept through to the completion of the bridge detailed design. The team has worked in close cooperation with the Design & Build main contractor joint venture of Farrans Construction and Victor Buyck Steel Construction through the construction phase, assisting in the planning of the deck launch and the transportation & erection phases for the 105m high pylon. ROD also undertook the design of all land and river based temporary support foundations.

Following the deck launch success ROD's chief bridge engineer on the project Tony Dempsey said: "This was a highly complex process which required months of planning and stringent geometric control and monitoring procedures. Not one critical trigger level was reached during the launch which is testament to the joint venture's expertise in the design and interface co-ordination of complex permanent and temporary works on major bridge structures".

Substantial progress has been made on the project subsequent to the deck launch in preparation for the next major milestone, the pylon erection. Early December witnessed the completion of the steel pylon fabrication at Victor Buyck's facility in Belgium and the first phase of its transportation by barge to Sunderland. The construction team are now completing the site works for this onerous phase of the project, which will involve pivoting the 1,600t pylon about hinges located on its supporting foundation into its final vertical position using a system of strand jacks over a 19-hour period.

Christian Smith



Waterford City North Quays Infrastructure Redevelopment

In June 2016 ROD was selected by Waterford City and County Council as the winning tenderer to lead the redevelopment of the North Quays area SDZ. The principal aim of our role will be to tackle the key infrastructure elements and necessary upgrades to underpin the functional viability and future success of the North Quays development. In addition to this task other major elements

on the scheme include relocating Plunkett Railway Station within the North Quays zone, designing a 250m long pedestrian crossing with opening span and the completion of the Environmental Assessment and Flood Risk Assessment for the scheme. Work is well underway with final proposals and planning expected in mid 2017.

Christian Smith



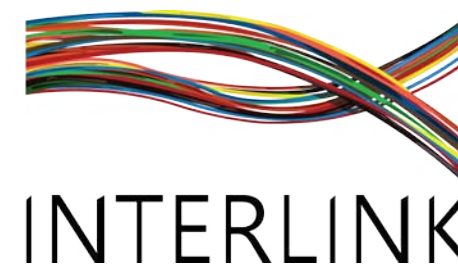
Canada Street Cycle Bridge - Auckland



Andrew O'Connell recently joining the ROD Bridges Group having returned from New Zealand where he was the Design Engineer of the very successful, multi-award winning Canada St. Cycle Bridge located in central Auckland. The complex bridge consisted of 160m of curving steel orthotropic box girder with an inverted triangular shaped

deck. The bridge had to be installed, and span over, the busiest section of motorway in central Auckland while simultaneously landing on a disused elevated viaduct at one end. Andrew is now looking forward to applying his international award winning experience to the many complex projects.

Andrew O'Connell



A European BIM Research Project

Efficient flow of information throughout the life-cycle of assets is vital for sustainable and economic management of our road networks. In September 2016, as part of the INTERLINK consortium, we commenced a two-year research project into the use of BIM for information management during the delivery and operation of European road infrastructure. INTERLINK is comprised of engineering consultants, IT consultants, information management experts, researchers and software companies. The research was commissioned by the Conference of European Directors of Roads (CEDR). INTERLINK aims to launch a pan-European initiative to provide national roads authorities (NRAs) and their supply chain with future-proof, open information management

standards. The proposed solution will use the cutting-edge capabilities of Linked Data and semantic web for a proposed European Road Object-Type Library. The system will be designed to integrate and reuse any existing and forthcoming BIM standards in flexible ways, thereby minimising obsolescence of earlier investments by NRAs. Initially, we are engaging with NRA project managers and asset managers, contractors, consultants and academics across Europe. This will lead to a clear understanding of how and why asset information is produced, formatted, accessed and processed. INTERLINK will then design and test a robust proof-of-concept system for implementation by CEDR.

Aonghus O'Keeffe





Post tensioned bridges have always been regarded with a certain degree of sensitivity requiring special measures to assess their condition. Great care needs to be taken during intrusive investigation works on these structures to avoid / limit any further damage to the integrity of the bridge. To do this right requires a high level of technical know-how and our in-house specialists have recently commenced working on two such forensic engineering projects for TII (Scarawalsh Bridge on the N11 in Wexford and the M9 Tunnel just outside Newbridge in Kildare), as part of the Eirspan Framework

Contract, both of which require Post Tensioned Special Inspections (PTSI's) to ascertain the cause and significance of reported visible defects. Over the coming months we will be reviewing all of the available information, undertaking detailed structural assessments (including where possible accounting for staged construction) and, in the middle of the night while most people are safely tucked up in bed, we will be opening up ducts, examining anchorages and extracting samples for laboratory testing.



Joe Kelly



The Long Walk to Grousemount

Even ROD's famous hillwalking group would find the 5km trek out and back to the site of one of our newest bridge projects quite a challenge. However, this is what faced Joe Kelly as he battled the rugged bogs, raging mountain streams and dense heather to get to the site of Bridge 18, one of two bridges that we are currently designing for ESB as part of the Grousemount Windfarm. The site of the windfarm, which is largely hidden from view, covers an area of nearly 1,465 hectares of privately owned land in the beautiful upper reaches of the Roughty River Valley, in

the Derrynasaggart Mountains, on the Cork / Kerry border. The proposed windfarm comprises 38 No turbines and 28km of access roads and will generate enough renewable electricity to power around 74,750 households a year. The bridges, which are both prestressed concrete beam designs, are complicated by their environmentally sensitive locations where the presence of Fresh Water Pearl Mussels has been recorded.



Joe Kelly

HOUSING

With a major shortage of new housing in Ireland, ROD is busy on a wide range of housing development projects in both the public and private sectors.



In the private sector we are working for Cairn Homes on several estates in Greystones; a site on Kilcoole Road for 50 houses which has received a notification to grant permission, a site at Charlesland for 182 houses and a site for 400 houses in Coolagad. Among other residential projects at the planning stage are 132 houses and apartments at Cairnbrook on the Glenamuck Road in Carrickmines and 4 smaller schemes in south County Dublin.

In the Social Housing sector we are working for Dublin City Council and the Co-operative Housing Association on a project at Moss Street in the city centre that entails deep refurbishment of a 4 storey period building to create 9 apartments together with a modern extension to the rear for a further 16 apartments. We have also just started

working for Dublin City Council on 60 apartments at Cornamona Court in Bluebell.

Fitzgerald Park Housing for Dun Laoghaire-Rathdown County Council consists of 49 terraced houses and it is the final phase of redevelopment of an old flats complex in Mounttown. A contractor has been appointed and works commenced in November 2016.

Outside Dublin, we are working on a number of projects for Meath County Council; a scheme of 16 houses in Bettystown, a small infill development in Laytown and 19 houses at Cherry Court in Summerhill. Further afield, we have been awarded a project in Saltown, Dundalk and a Transitional Housing Development for the Dundalk Simon Community.



Andrew Thomson

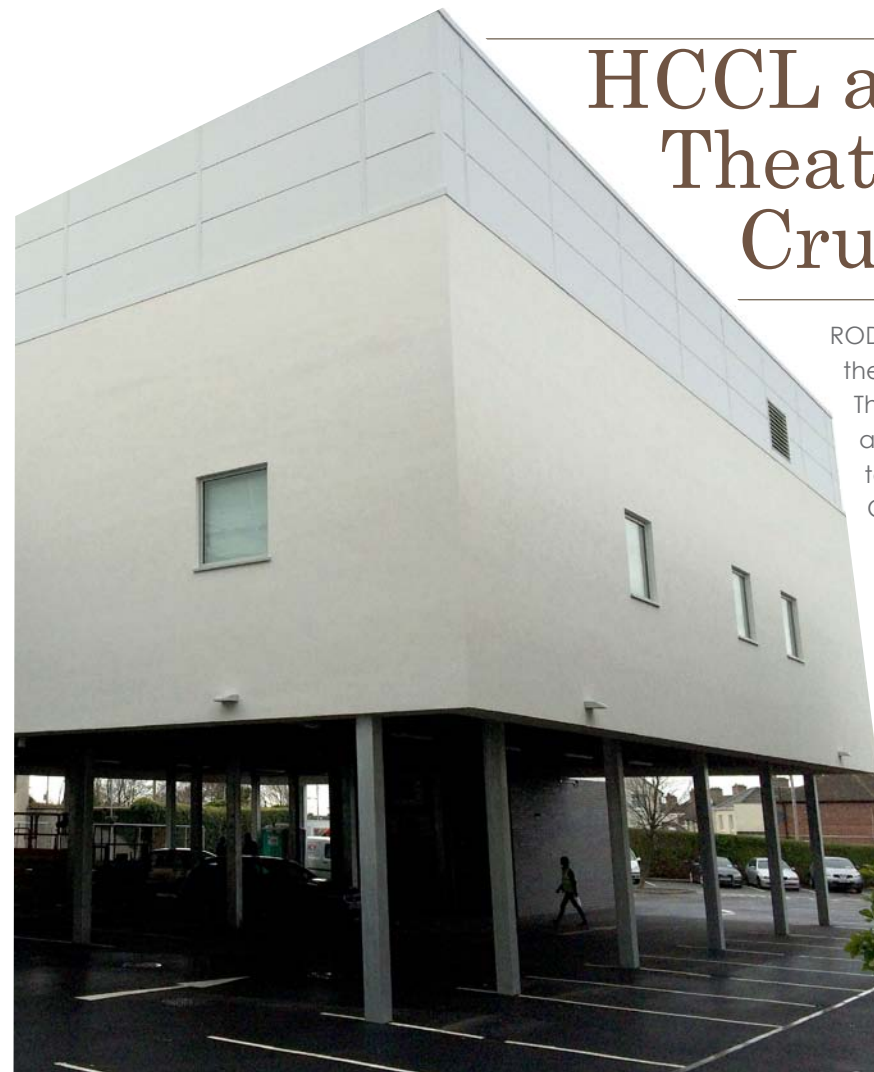
HCCL and Orthopaedic Theatre at OLCH, Crumlin

ROD were civil & structural engineers for this complex theatres project which was completed earlier this year. The design team's brief was to obtain planning permission and develop an exemplar design and comprehensive tender documentation for pricing by Design & Build Contractors.

The Hybrid Cardiac Catheterisation Laboratory combines ultra low dose bi-planar imaging equipment with the versatility of a full operating theatre. The theatres were constructed as a stand alone block at first floor level floating over an existing carpark and there is a 14m long link bridge corridor to the main theatres block. The grid for the steel frame superstructure was carefully set out to ensure that the minimum number of carparking spaces was lost. The Lead Consultant for the project was Cullen Payne Architects.



Ciaran Mac Intyre



ATHY CNU SUCCESS

ROD has a new addition to its growing health Sector portfolio of projects with the recent Tender win for the new 100-bed Community Nursing Unit (CNU) at St Vincent's Hospital in Athy, County Kildare. In our Tender submission to the HSE Dublin Mid-Leinster, ROD put forward the idea of a dual-phased construction strategy for the proposed CNU facility with minimal impact in Phase 1 to the existing ward blocks to the north-east of the site. The submission

also identified our proposed location of the new facility on the health campus to create a linear frontage that does not detract from the Athy Union Workhouse, which is a protected structure constructed in 1843.

ROD's primary partners for the scheme include Van Dijk Architects, JV Tierney as M&E Consultant and Bruce Shaw Safety Management as PSDP.

Eamonn McElduff



NEW TOWN CENTRE HOWTH

Planning permission was received by Glenkerrin Homes (in receivership) for the construction of a mixed use development, at the site of the former Techrete precast concrete manufacturing plant in Howth, in early 2016. The proposed development involves the construction of 145 apartments, 55 houses, 7 commercial/retail units and a community centre. ROD was appointed to provide civil & structural services for this planning application.

ROD's preliminary design opens up the previously culverted Bloody Stream to create a riparian strip running north-south

through the centre of the development. This riparian strip will greatly enhance the amenity and biodiversity of the development. The proposed SUDS strategy incorporates green roofs, permeable paving, water butts, swales and bio-retention areas. ROD also developed an outline remediation plan for the treatment of contaminated land likely to be present due to the site's former use. ROD has remained involved in the project as it has progressed to feasibility stage.

Paraic Hickey



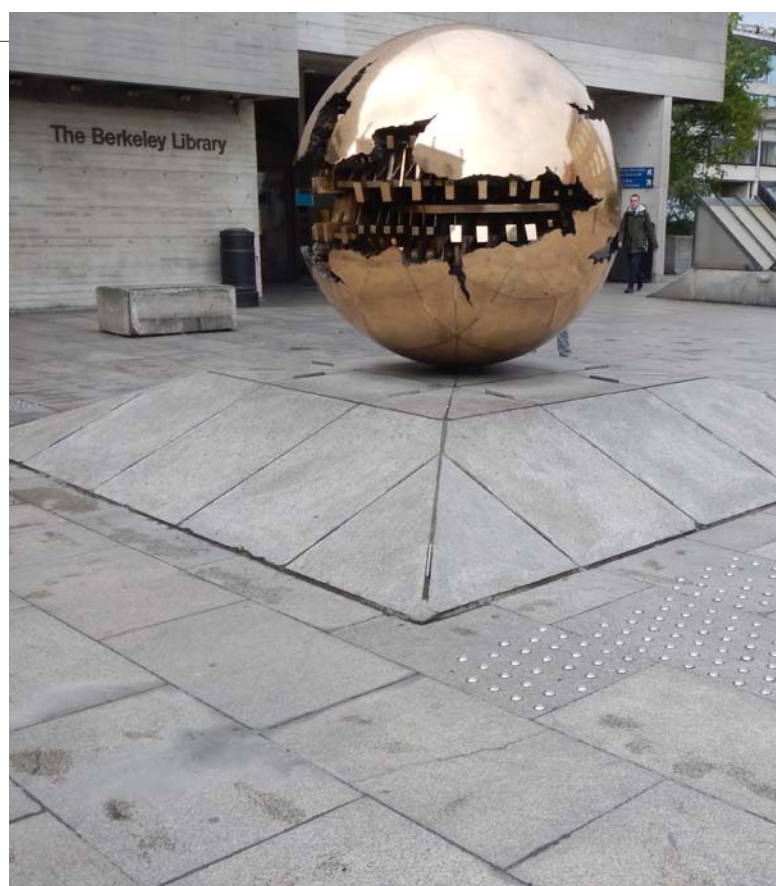
TRINITY VISITOR CENTRE

ROD has been appointed as Civil & Structural designer for the Trinity Visitor Experience (TVE) Improvement project at Trinity College Dublin (TCD). The Book of Kells Exhibition 'Turning Darkness into Light' in the Old Library was opened in 1988 as a temporary exhibition, and originally planned for 250,000 visitors per year. It is estimated that 750,000 per year are now visiting this exhibition in conjunction with the Long Room. The reimagined enlarged Treasures Exhibition will create an improved visitor experience.

In addition to the live TCD academic environment, there will also be the continued operation of the visitor experience in its current form and the on-going public use of the campus. The site is unique, being a series of interconnected buildings which at times will be simultaneously occupied with staff, visitors and the Contractor.

ROD's primary partners for the scheme include Heneghan Peng Architects, ARUP as M&E Consultant and OLM Consultancy as PSDP.

Eamonn McElduff



Implications Of New EIA Directive

16th May 2017 is an important date that all project developers should be cognisant of in the delivery of any current or planned projects. This is the date when projects that have not commenced under the formal EIA process will be required to be completed in accordance with the 'new' EIA Directive (2014/52/EU). The changes stem from over 25 years of experience of EIA, the recognition of the changing global environment and the opportunity for smarter regulation through use of existing legislation and co-ordinated procedures. The changes also consider issues such as how climate change, disaster prevention, human health and resource efficiency can be assessed more effectively within EIA.

The Main Substantive Amendments Include:

- A definition of the Environmental Impact Assessment process.
- A formal Screening procedure, including defined timeframes. A new Annex IIA - setting out what information developers should provide if seeking a screening opinion and a justification of a negative screening decision.
- Informal Scoping will remain voluntary for developers but the EIA Report (see below) will be required to be based on the scoping opinion where one is requested.
- The output of the assessment will be presented as an 'EIA Report', rather than the previous 'Environmental Impact Statement'.
- Experts involved in the preparation of EIARs should be qualified and competent whilst for the purpose of its examination the Competent Authority are required to also have sufficient expertise, in the relevant field of the project concerned.
- It also introduces mandatory post EIA monitoring of significant effects, in order to track the delivery and success of design elements and mitigation that aims to avoid, prevent or reduce significant adverse effects on the environment.
- Co-ordination and integration of procedures under the EIA Directive and other EU Directives e.g. Habitats Directive and the Industrial Emissions Directive.
- Other changes include; quality control of EIA preparation and review.
- Competent authorities will also need to prove their objectivity to avoid conflicts of interest.

The EPA Guidelines were last updated in 2002/2003 and these have now been revised with a draft of the "Guidelines on the information to be contained in Environmental Impact Statements" and the "Advice Notes for preparing EIS" out for consultation since 2015. These draft guidelines attempt to anticipate the Directive's provisions combined with the lessons and experience arising from EU and Irish court cases, appeals, the various pieces of new legislation that have been adopted since 2002/2003 and the experience gained in EIA over the past 10-15 years.

In the interim, ROD are taking account of the future provisions in the preparation of a number of current Environmental Impact Statements and will be watching closely in order to ensure that our projects are developed in accordance with these changes. It is anticipated that the Irish Government will issue amended EIA Regulations early in 2017, and once transposition is complete, the EPA will issue Final Advice Notes and Guidelines.

Frances O'Kelly & Barry Corrigan





ROD ENVIRONMENTAL CAPABILITIES

With the growing requirement for environmental and planning inputs on projects in all sectors, ROD has expanded our offering in environmental and water services. ROD Environmental is now a 15 strong team with the recent recruitment of specialists to compliment our core team who have traditionally specialised in EIA, flooding and site development.

ROD Environmental covers six main areas:

Environmental planning, ecology, planning, water, hydrogeology and contaminated land. Some of the most recent additions to the team are outlined below:

ROD Environmental has a team of five ecologists, led by Ryan Wilson-Parr. Ryan is a skilled Ecological Consultant with 13 years experience in ecological monitoring, impact assessment and conservation. The team includes two freshwater ecologists, Dr Niamh Burke *PhD MCIEM CEnv* and Owen O'Keefe *BSc (Hons) GradCIEEM*. Niamh completed her PhD on salmonid ecology and fluvial dynamics at the University of Southampton in 2011 and, since then, has been certified to carry out electrofishing surveys and accredited as a River Habitat Surveyor. Owen has always had a keen interest in water, having been the youngest Irish person to swim the English Channel at 16 years of age. He is a graduate of ecology from University College Cork specialising in freshwater ecology, particularly white-clawed crayfish, and is also a certified River Habitat Surveyor. Niamh and Owen have experience of carrying out freshwater ecological surveys and assessments both academically and professionally.

Patrick O'Shea BA MSc ACIEEM is a botany graduate of Trinity College Dublin and an ecology graduate of Queen's University Belfast. Patrick is experienced in the areas of invasive species, protected mammals and habitats. Patrick is a licensed bat worker and has also held a number of project specific licences for other protected species.

Frances O'Kelly is a qualified spatial planner and social scientist with over 10 years experience across the planning spectrum. She has a degree in Spatial Planning and Master of Science in Community and Local Development. She has a strong background in strategic policy, environmental assessments (EIA, SEA), community and stakeholder consultation/ liaison, socio-economic and technical analysis.

Dr Patrick Morrissey completed his PhD in the area of groundwater contamination relating to on-site wastewater treatment systems at Trinity College Dublin in 2013. Patrick has extensive experience in completing hydrological and hydrogeological field studies and has also completed extensive groundwater and river flow modelling. Patrick has been involved in a number of hydrological research projects which included river and stream hydraulic monitoring with the

associated hydraulic assessment and analysis. Having previously completed extensive contaminant transport modelling, Patrick is also experienced in contaminated land assessment and remediation design.

Warren Vokes BA MSc is a graduate of environmental planning from University College Dublin and freshwater hydrology from the University of Birmingham. Warren specialises in flood modelling and diffuse pollutant cycling in freshwater systems. Warren is currently working closely with Martin Jancek and John Paul Rooney carrying out detailed flood risk assessments on a number of projects.

Gemma Rothwell recently joined ROD as a Graduate Environmental Consultant having recently graduated with a 1st Class Honours in BSc Environmental Science from University College Cork.

Finally, the group is supported by Maria Miguel a Geomatic Engineer with a MSc in GIS from DIT. Maria has over 11 years experience as a GIS/CAD Technician and Geomatic Engineer.

We are excited to be able to provide this expanded service offering and expertise to our current valued client base as well as a more diverse range of private clients.



Barry Corrigan



Kilcarn braced for another 450 years

After approximately 450 years of service, the Old Kilcarn Bridge in Navan, County Meath (a protected monument) has been given a new lease of life. Emergency Repair works to the severely scoured piers, were undertaken over the past 4 months and will allow the bridge to re-open to pedestrians for the first time in nearly 30 months. Built sometime between 1550 and 1593, the bridge holds significant historical interest due to its association with the movement of over 18,000 English troops during the nine years war (1594 – 1603). This rich historical past was shown with a number of historical guns and other weapons found during pre-construction archaeological surveys. Although no longer open to vehicular traffic the strategic importance of the bridge continues as it carries broadband and wastewater utilities between Johnstown and the town of Navan.

In a more modern context, the site of Old Kilcarn Bridge falls within the River Boyne and River Blackwater SAC (Special Area of Conservation) and it was therefore essential to ensure that every effort was made to avoid Likely on the SAC. Following the completion of the design, ROD Environmental undertook a series of ecological surveys

for bats, otter and invasive species. We then prepared an Appropriate Assessment Screening Report and a Construction Management Plan for consultation with NPWS and approval by Meath County Council.

ROD Senior Ecologist Dr. Niamh Burke acted as Ecological Clerk of Works (ECoW) to oversee the day to day operation of the bridge works, prepare guidance documents and give on site 'toolbox talks' to contractors. ECoW duties also involved ensuring that best practice methodologies were followed and that there was no contravention of relevant wildlife laws. In a fluvial context, this chiefly meant control of sediment delivery to the river, fish rescues where dry zones were required for works around the piers and containment and avoidance of nearby invasive species present on the site which may otherwise spread as a result of the activity in the area.

Works were completed during October 2016 and the bridge has now opened to pedestrians. Having gone from carrying English troops to broadband, who knows what the bridge will be carrying in another 450 years time.



Joe Kelly & Niamh Burke

Upcoming survey periods

Ecological issues are the most common cause of delays in obtaining permission for development projects. Many protected species can be difficult to identify, so it is essential that surveys are undertaken by a suitably qualified Ecologist, at the optimum time of year and using a recognised methodology. Many of these surveys need to be planned due to the seasonal movements or breeding times of the species in question. Ecological surveys are seasonally constrained and surveys undertaken during optimal periods provide the most reliable information to inform planning. If surveys are commissioned and undertaken in sub-optimal periods, the data collected may be deemed inadequate leading to project delays and the requirement for surveys to be repeated.

The early winter/spring season is the optimum period for more reliable protected mammal surveys such as badger and otter, tree assessments and surveys for migrating and wintering birds. ROD Ecologists are currently engaged in a number of projects with specific winter sensitivity, notably due to the seasonal presence of wintering birds. These include the Sutton to Sandycove (S2S) Wooden Bridge to Causeway Road at Bull Island, Dublin and the A6 Randalstown to Castledawson Dualling, County Antrim, Northern Ireland.

ROD Environmental provide expertise in a range of habitat and species surveys and can provide advice, mitigation design, licensing and monitoring. If you have any queries with regard to the timing of any upcoming surveys please contact ecology@rod.ie.



Patrick O'Shea

RIVER DODDER GREENWAY BATS

South Dublin County Council and Dublin City Council are planning to develop a shared cyclist/pedestrian facility along the River Dodder corridor from Grand Canal Dock in Dublin City to Bohernabreena near Glensamole. The River Dodder is a key piece of linear green infrastructure within urbanised Dublin, providing many social benefits including mobility, well-being and access to nature, as well as space and habitat for wildlife. The variable river flows, bankside trees and open parklands along the River Dodder provide good foraging and commuting habitat for Bats. However, these highly developed social mammals can be sensitive to disturbance. As nocturnal echolocating animals adapted to low light conditions, Bats are also sensitive to artificial lighting.

As part of the Ecological Impact Assessment (ECIA) for the Greenway, ROD Ecologists carried out detailed surveys throughout the summer to identify the species, abundance and distribution of Bats along the proposed Greenway. Surveying for an animal that you cannot see or hear is extremely challenging without specialised equipment. Using state of the art acoustic detection equipment with built in high definition GPS, our Ecologists were able to simultaneously record Bat calls, identify species or species groups and geospatially reference their location in relation to the Greenway. Between April and July 2016, over 75hrs

of walked transect surveys along the entire Greenway provided more than 3,000 Bat recordings of at least seven species.

A species of particular interest to the project, given its strong association with water and subsequent sensitivity to any new artificial lighting, was the Daubenton's Bat. Prior to ROD surveys, very little was known about the distribution or roost locations of this species along the river corridor. After consultation with the National Parks & Wildlife Service (NPWS), a specialised and innovative approach to survey work was agreed using a combination of Thermal Imaging Cameras, night-time torch lamping surveys, and dusk emergence / dawn re-entry techniques to obtain new and very specific information on this species along the River Dodder.

Through spatial analysis of Bat density and distribution data, ROD have been able to devise an appropriate lighting design code for the Greenway that incorporates measures to avoid, reduce and compensate ecological impacts on Bats and work towards satisfying the requirements of the NPWS. The level of detail achieved also provides opportunities to enhance the value of the river corridor for Bats and propose enhancement measures that can deliver long term benefits for biodiversity within this urban environment.

Ryan Wilson-Parr



WATERFORD TO NEW ROSS GREENWAY ECIA



Throughout Ireland local authorities are developing disused infrastructure to enhance leisure facilities for tourists and local users to enjoy across the country. The proposed Waterford to New Ross Greenway is another fine example of this with Trail Kilkenny and the Kilkenny LEADER Partnership recently submitting a Part 8 planning application for a 22km shared cycle and pedestrian facility along the existing disused railway line between Waterford City and the town of New Ross, Co. Wexford.

The railway closed to the public in 1963 after almost 60 years in service and now has the potential to reopen, providing a new means of travel and enjoyment to old and new users. The route travels through the River Barrow and River Nore SAC, traversing over and under historic bridges, which adds to the historic and visual amenity of the route whilst providing views of the River Barrow



for users to enjoy. The Greenway also has the potential to link up with other amenities in the area such as the recently completed Déise Greenway, a 45km route from Dungarvan to Waterford and the proposed Red Bridge Walkway in New Ross Town.

ROD undertook the feasibility stage design, prepared the Part 8 planning and undertook all necessary ecological and environmental surveys along the corridor. As with many of these disused railways it had become very overgrown which made it ideal for many types of protected species most notably badgers and bats in the old masonry bridges. The greenway will give the old railway a new lease of life, encouraging locals to be active and enjoy their surroundings with minimal impact thanks to appropriate mitigation and derogation licences.

Ryan Wilson-Parr



ECOROAD Handbook on Roads & Wildlife

ROD and ROD-IS have been working on a collaborative project with Europe's top road ecology experts to produce a handbook of recommendations for minimising the mortality, barrier and fragmentation effects of roads on wildlife, while optimising the effectiveness of existing and innovative mitigation measures for wildlife-road interactions applicable to the roads of Europe.

The ECOROAD project is a Conference of European Directors of Roads (CEDR) Transnational Road Research Programme. The ECOROAD Manual will be informed by previous CEDR Programmes, notably HARMONY (Procedures for the design of roads in harmony with wildlife), SAFEROAD (Safe roads for wildlife and people – Cost-efficient mitigation strategies and maintenance practices) and SafeBatPaths (Effectiveness of bat mitigation measures on roads) Projects. In partnership with the Wageningen University and Research Centre, and Aarhus University, ROD will combine their extensive experience in road design, maintenance and procurement to produce the Handbook on Roads



and Wildlife that is easy to use, well illustrated and practical and that will complement the recommendations already contained in the COST 341 Action handbook.

ROD and ECOROAD partners have been consulting extensively with Ecologists and Engineers across Europe on the content of the new Handbook and to identify routes to the implementation of its recommendations. ROD have consulted and presented on the draft Handbook at the Infra Eco Network Europe Conference in Lyon, France 30th August to 2nd September 2016 and most recently at the CEDR Workshop in Köln, Germany 7th and 8th November 2016. The new Handbook is planned to be published by Summer 2018.

Ryan Wilson-Parr



Japanese Knotweed

Since our previous articles on Japanese Knotweed (*Fallopia japonica*) it has really become a hot topic in the Irish media with regular features in print and on radio about the significant delays and costs to infrastructure projects.



As suppliers on Transport Infrastructure Ireland's (TII) Management of Invasive Alien Plant Species (IAPS) Framework, ROD Environmental are increasingly required to provide expert guidance to developers and clients in relation to the survey and management of IAPS. The services provided on these projects include ecological survey and guidance on

the recommended treatment techniques, Health and Safety / PSDP services, GIS and contract administration services.

Recent projects include:

- Provision of an IAPS Management Plan for Health Service Executive Estates at a property in Newtownpark Avenue, Dublin. ROD also prepared the tender documents to allow HSE procure a contractor for the works;
- Refurbishment of Old Kilcarn Bridge, Navan, Co. Meath. Survey for early identification of invasives for Meath County Council and provision of Construction Management Plan detailing management of construction traffic and machinery, and biosecurity procedures during works; and
- Commencement of a three year treatment and monitoring programme for IAPS on national roads in County Wexford for TII, involving a phased process of initial validation surveys, detailed survey, treatment and re-survey.

The most suitable options for the treatment and disposal of Japanese Knotweed are typically site specific and a suitably qualified expert should be consulted to advise on the most efficient approach for successful control and eradication. The early identification of Japanese Knotweed and other IAPS is crucial in preventing delay to projects. For more information contact our Ecology team: ecology@rod.ie

Patrick O'Shea



...Latest News

Our deep involvement in European funded research has continued with the recent success of the GoSAFE Rail project (Global Safety Management Framework for RAIL Operations) which is funded under the Shift2Rail Joint Undertaking 2015 call. The project brings together inter-disciplinary experts from risk based assessment of infrastructure, Artificial Intelligence, object detection and data management sectors with leaders in network modelling to deliver a Decision Support Tool that will allow a step change for railway infrastructure safety. Building on our work in previous and ongoing research projects, such as SMART Rail, DESTination Rail & INFRARISK, ROD-IS is leading the research activity which focuses on developing a set of universal railway safety key performance indicators; developing a monitoring system for obstacle detection on tracks; and developing a global risk assessment framework that takes into consideration the probability of hazard occurrence and infrastructure resilience based on a combination of qualitative and quantitative data obtained through different inspection/monitoring strategies. The project commenced on 1st October 2016 and is due for completion in September 2019.

ROD-IS ON THE ROAD

With packed bags and presentations in hand, ROD-IS staff have continued to disseminate our projects both at home and abroad. August proved a busy month - At the CER12016 conference in Galway (www.cerai.net) we gave no fewer than five presentations on the research projects Re-Gen, INFRARISK, DESTination Rail, RAIN and a generic presentation on the 'Practical Applications of Weigh-in-Motion Data'. Further afield we presented the HARMONY project at the 5th IENE International Conference on Ecology and Transportation in Lyon, France (www.iene2016.iene.info/) and even further afield, we presented our work on the INFRARISK project at the 6th International Disaster and Risk Conference in Davos, Switzerland (www.idrc.info/).

In September, we presented at the 2016 Horizon 2020 (H2020) Information Day in Brussels which focused on the 'Smart, green and integrated transport' programme (www.ec.europa.eu/research).

INFRARISK also featured again in September with the final dissemination conference taking place in Madrid on 29th September and in October, where the project also featured at the 2016 European Transport Conference in Barcelona (www.etcproceedings.org/), at which we presented in a session on 'Extreme weather events: making our infrastructure more resilient and robust'.

In November, the ECOROAD project organised an event in the NH Köln Altstadt hotel in Cologne to showcase the development of the CEDR Roads and Wildlife Manual.

CEDR

Our involvement in CEDR (Conference of European Directors of Roads) funded research projects has continued to grow with three new proposals selected for funding. ROD-IS are leading the ECOROAD (ECOlogy and ROADs) project, collaborating with ROD's Environmental team among others (see ECOROAD article by Ryan Wilson-Parr). In addition, ROD-IS are working alongside ROD's Bridges and Transportation groups on the INTERLINK project which is investigating the use of BIM techniques for information management throughout the various stages of the life cycle of road infrastructure (see INTERLINK article by Aonghus O'Keeffe). Finally, ROD-IS are working with ROD and a number of other organisations on the WATCH project which is examining water management as described below.

WATCH

(WATER management for road authorities in the face of climates CHange)

Funded under a supplementary call to the 2015 CEDR 'Climate Change: from desk to road' research Programme, WATCH, focuses on developing a transnational approach to water management in the face of Climate Change. The project is coordinated by Deltares, one of the world's leading institutions in the field of water related research. ROD-IS, working closely with the ROD Water Services group, is leading the activities on assessing the resilience and design of Sustainable Urban Drainage Systems (SUDS) and the development of cost benefit analysis guidelines for climate change adaptation measures when considering existing and new drainage systems. The project commenced in October 2016 and is due for completion in the summer of 2018.

ONGOING WORK

The application of our specialist skills is being utilised to the full on a number of ongoing commissions with Transport Infrastructure Ireland (TII). We have recently completed a project which examined the pavement damage associated with the vehicles specified in the Road Traffic (Construction and Use of Vehicles) Regulations, using extensive data from the six TII Weigh-In-Motion (WIM) sites and the various Traffic Monitoring Unit (TMU) sites throughout the Irish road network. The implications of a 2 tonne derogation, which was removed in July 2016, which allowed 5-axle articulated vehicles to operate at a Gross Vehicle Weights (GVW) of 42 tonnes, was investigated. The effects on pavement wear were made based on an assessment of the percentage of the annual pavement maintenance budget that can be attributed to these vehicle types compared to other vehicle configurations. Working with TII on projects such as the TMU Contract, we continue to pioneer data analysis techniques to analyse the substantial amount of data collected through TII's Intelligent Transport Systems. Our experience in this area enables us to carry out extensive analysis on data from various sources such as; Weigh-In-Motion (WIM); Traffic Monitoring Systems (traffic counters); Journey Time Management Systems; Incident Management Systems; Road Condition Surveys; Weather Events; and Collision databases. This capability in advanced data analysis techniques, in conjunction with our expertise in developing risk frameworks for transport infrastructure, is currently being employed on the Network Safety Assessment commission. In this project we are developing a risk assessment framework for collision analysis, with a view to developing a risk profile considering the effects of skid resistance and geometric design for roads on the national network.



Mark Tucker

Stress Testing of Road and Rail Networks for Loss Estimation due to Natural Hazards

The INFRARISK project, funded under the European Union's 7th Framework Programme, has recently reached a successful completion following the final dissemination conference in Madrid on September 29th. Working collaboratively with a multidisciplinary team of professionals from across Europe, ROD-IS coordinated the project, which has developed a stress test framework to assess the risk to critical European road and rail infrastructure due to extreme natural hazard events, such as earthquakes, floods and landslides. The framework enables the potential losses to be estimated for road and rail networks due to extreme natural hazards, which can assist infrastructure managers in the decision-making process regarding the protection of existing infrastructure, as well as the design of new infrastructure.

ROD-IS also led a technical work package in which two European case studies were analysed to demonstrate the systematic application of the methodologies developed. For the first case study, stress tests were performed for a road network in the vicinity of Bologna city in Northern Italy, to evaluate the impact of extreme earthquake hazard scenarios and the cascading earthquake-triggered landslide effects. Probabilistic risk modelling was employed to quantify the consequences of the seismic hazard scenarios in terms of the physical damage to the road network and the associated travel disruption due to the functionality loss of the network. In addition, the

economic losses due to travel disruption were quantified.

For the second case study, stress tests were performed for a rail network in Croatia due to extreme flood scenarios, which considered the potential for bridge scour, track inundation and rail damage due to rainfall-triggered landslides. The consequences were quantified in terms of the physical damage to the network elements and the associated transport disruption in terms of passenger and freight trains.

Stress tests, such as those demonstrated for the selected case studies, have the potential to assist infrastructure managers in terms of the prioritisation of network interventions to minimise the losses associated with such extreme events. In the past year, we have seen several regions in Italy severely impacted by seismic loading, such as the 6.2 magnitude earthquake that destroyed the town of Amatrice in August, resulting in approximately 300 fatalities, along with numerous landslides and the collapse of at least one bridge. We have also seen an increase in the frequency and intensity of extreme weather events in the past number of years due to the effects of climate change. In both cases, stress tests provide important insights into the potential losses and are critical to ensuring the resilience of our road and rail networks.

Further information on the project can be found at www.infrarisk-fp7.eu

Julie Clarke



Technical Paper on Glacial Tills

Fintan Buggy, Associate and Paul Kissane, Senior Geotechnical Engineer in ROD, have co-authored a paper entitled "Performance of Road Embankments on Glacial Deposits in Ireland" at the CERAI and ISSMGE ICTG conferences held at Galway and Guimaraes, Portugal respectively in September 2016. The paper describes the analysis of numerous case histories collated by the authors from instrumented embankments and gives useful guidance to the expected settlement magnitude and durations for these earth structures. Fortunately settlements rarely exceed 60mm and durations are less than 6 months for embankments up to 9m high when constructed upon typical Irish cohesive glacial tills. Special cases potentially requiring ground improvement occur with softer tills (SPT N

less than 12) and high plasticity tills (Plasticity Index > 20).

The paper has been well received and cited by other geotechnical practitioners and researchers in Ireland.

ROD are committed to supporting a specialist geotechnical group which can provide highly cost effective and innovative solutions to clients on major transportation infrastructure projects and which fully reflect the current state of practice.

The technical paper can be accessed here: <http://dx.doi.org/10.1016/j.proeng.2016.06.170>



Fintan Buggy Paul Kissane

Arklow to Shillelagh

The Arklow to Shillelagh Greenway is a 35km route that follows the dismantled Shillelagh to Woodenbridge branch railway between Shillelagh and Woodenbridge and then continues to Arklow through the renowned Vale of Avoca. The Shillelagh to Woodenbridge branch railway, which follows the Aughrim River and Derry River, represents a unique opportunity for Wicklow County Council to develop a premium off-road walking and cycling facility, catering

for all ages and abilities. Along the line, there is a wealth of heritage, including natural landscape, villages, and railway heritage such as masonry bridges, train station buildings and goods buildings. ROD is working with Brady Shipman Martin and Tourism Development International to develop preliminary designs on behalf of Wicklow County Council and the NTA.

John Bell



Dublin Port Projects

Planning permission has been secured for the c. €50m upgrade of Dublin Port's Road Network north of the River Liffey. The scheme, described in our Summer 2016 Newsletter, includes new road links, junction upgrades, new bridges and underpasses, a 4km greenway and ancillary infrastructure. The scheme received planning permission without further information requests or objections, and a final grant was confirmed within 13 weeks of submission of the Planning Application. ROD, alongside subconsultants Redscape and Natura Consultants, devised an environmentally sensitive solution to the greenway that meanders through enhanced landscaping along the northern foreshore. It was found that this could be constructed without risk of adverse environmental consequences and, therefore, our screening showed that both an EIA and AA were not warranted. This greatly simplified the planning process and allowed the rapid grant of planning permission to be achieved.

The Planning Application was primarily intended to increase the road network capacity and provide more intuitive navigation routes, particularly for those unfamiliar with Dublin Port. As described above, a significant ancillary element of the application was also related to safety and connectivity for pedestrians and cyclists through the Port. Dublin Port Company is actively encouraging more sustainable modes of transport for Port employees and users, while also encouraging leisure walkers and cyclists to explore the industrial history and scenery of the Port itself.

In parallel to the Road Network project, Dublin Port Company has commenced the upgrade works for its Port Centre Precinct. ROD is the civil and structural engineer for this exciting project, which includes complex structures integrated with a high-quality architectural design. The result, due for completion in 2017, will soften the physical boundary between the Port and Dublin City.

Deirdre Neff





RIAI



Davis Square, Mallow – RIAI Award

ROD was pleased to note that the Davis Square scheme was awarded third place in the RIAI Public Choice Awards 2016 out of a shortlist of 52 submitted projects. Working closely with Cork County Council Architects Department, ROD provided a full design service from Planning all the way through to Contract Administration and Site Supervision and Completion. The project was also commended in the Public Space and Urban Design section. The project consisted of a challenging Streetscape in an Urban Environment involving pavement, renewal of services and construction of new road surfaces. A new Public Meeting Space at the Old Clock House in Mallow was developed with granite paving keeping with the traditional view of the town. The works were constructed by Wills Brothers Ltd.

Another ROD project, The Malahide Parish Centre at St Sylvester's Church in conjunction with Sean Harrington Architects was commended in Best Universal Design section.

Seamus MacGearailt



CEEQUAL Success for the A2

new dual all purpose carriageway. On the shores of Belfast Lough, the road passes through a populated urban area close to the University of Ulster.

The scheme has been a first in many ways for ROD: our first Contract using NEC3 in Northern Ireland; our first major road scheme for Transport NI and our first design and build with Graham Construction. The ROD Team was led by Marc Jones (Project Director), Martin Brown (Project Manager) and the DSR Craig Smart who worked in close co-operation with TNI, TAA, TICC, Roads Service Eastern Division, AECOM and the Graham Construction team (led by Stephen McFaul and Jonny McKay).

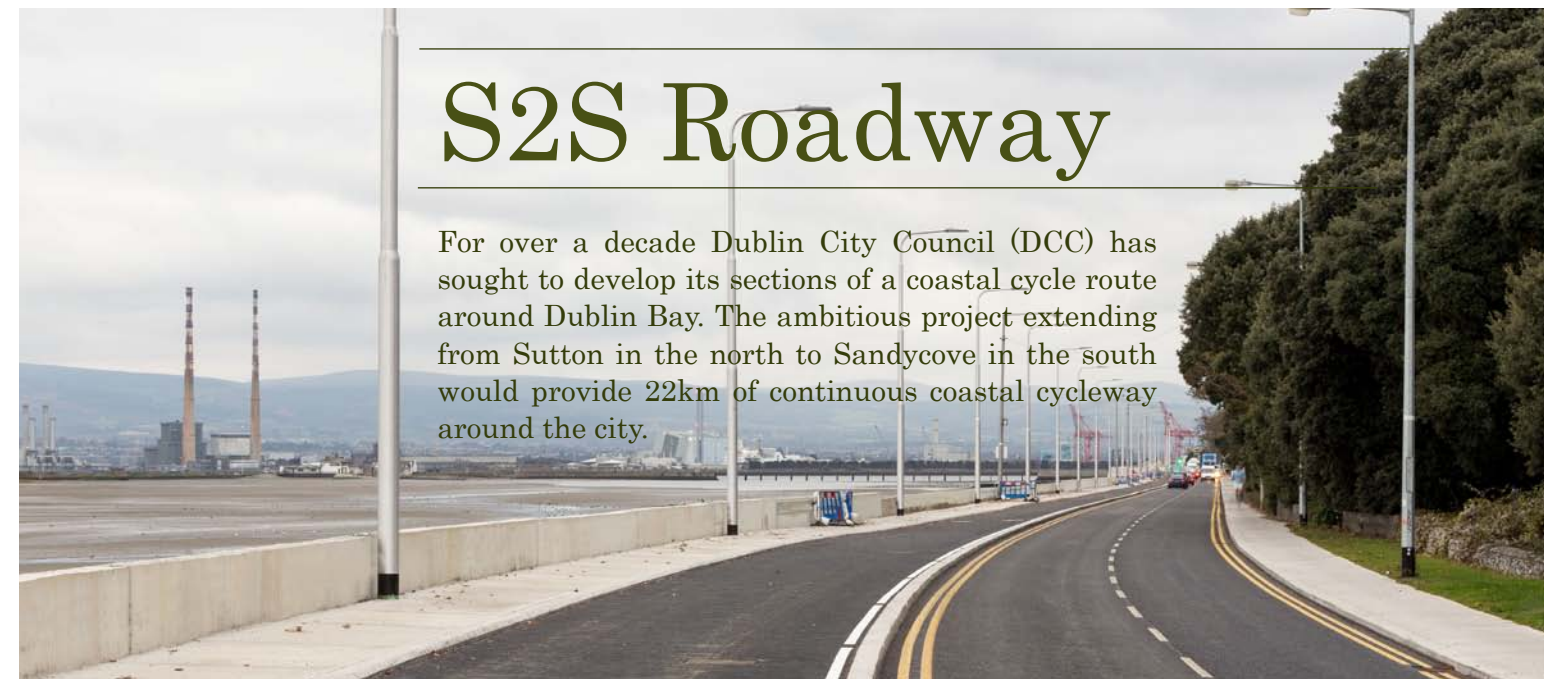
With this completion behind us, the ROD NI team, again led by Marc and Martin, are currently working on the ECI Design for the A6 Castledawson-Randlestown Scheme on behalf of TNI in a design joint venture with Arup for the Graham-Farrans JV. That scheme has just entered Phase 2, the detailed design and construction stage, following agreement of the Target Cost.

Martin Brown



After a lot of hard work by all parties, the A2 Shore Road Improvement Scheme in Belfast has achieved an "Excellent" award from Ceequal. The Excellent grading is the highest level that can be achieved. The award is testament to the hard work, and collaborative approach that was undertaken by TNI (and Aecom), Graham Construction and ROD and is recognition that the project has been delivered with careful consideration of its environmental and social impacts.

The scheme itself was fully opened to traffic on 28 September 2015 and has been welcomed locally. It comprises 1.9km of on line dual widening and 1.6km of



S2S Roadway

For over a decade Dublin City Council (DCC) has sought to develop its sections of a coastal cycle route around Dublin Bay. The ambitious project extending from Sutton in the north to Sandycove in the south would provide 22km of continuous coastal cycleway around the city.

Since 2006 ROD have been working with DCC and the NTA to deliver the missing 2km section of cycleway between Bull Road and Causeway Road which would when complete provide a continuous 8km cycleway around the North Dublin Bay. The proposed scheme, part funded by DCC, the NTA and Irish Water, is located in one of the most ecologically sensitive sites in the country. The South Bull Lagoon which is within the recently UNESCO designated Dublin Bay Biosphere Reserve, is within the North Dublin Bay pNHA and SAC, and the North Bull Island SPA and is also a RAMSAR Wetland Site.

The site is significantly constrained by a combination of the lagoon to the east and the residential properties to the west of the existing James Larkin/Clontarf Road. Although the primary element of the project was the development of a two way segregated cycleway, the scheme now also includes an upgrade to the pedestrian footways throughout this section, the introduction of traffic calming measures including a reduction in the road carriageway cross section, an extended 50km/h speed restriction zone, enhanced parking facilities at St. Anne's carpark and a new pedestrian crossing for ease of access to the new promenade. These elements of the scheme have almost entirely been designed within the existing carriageway footprint without adversely affecting the lagoon and will serve to maximise its use by the local community.

To protect the coastline from flooding the sea wall has been increased in height along the scheme to provide a 200 year level of flood protection. Demountable barriers, flood defence gates, an earth flood bund, extensive repairs to the existing masonry sea wall and 582m of new reinforced concrete sea defence wall were also required. During construction of the new reinforced concrete sea defence wall significant temporary works were required within the lagoon which was only permitted between 1st April and 31st August to avoid impacts on the overwintering bird populations. ROD Ecologists and Engineers closely monitored these works to ensure that all planning conditions and environmental commitments



Barry Corrigan

were adhered to and best practice construction phase practices were applied to protect the lagoon.

Due to the declining condition of the concrete carriageway, extensive repairs have been undertaken to ensure an extended design life of the new resurfaced carriageway which also provides noise reduction benefits for residents. Other elements of the scheme include the construction of 2km of 630mm diameter HPPE watermain including associated valves and chambers. This section of the North City Water Supply Scheme was incorporated to reduce future excavations within the reconstructed carriageway. As part of the scheme the old tram shelter is being rebuilt in a similar style and it will be used as a new bus shelter, making it functional 75 years after the last remaining city tram was withdrawn from service along the Clontarf seafront. Sections of the buried tram rails uncovered during excavations have been kept for future display in the area and a large amount of cobbles are to be retained to repave historic streets within the city.

Clearly constructing a project like this in such a sensitive and constrained environment has been a difficult task and these constraints have meant that phased closures of the James Larkin Road and Clontarf Road from early October to mid November 2016 were required. Ongoing liaison both with the Environmental Monitoring and Liaison Committee and with representatives of the local residents and business association was key to ensuring the successful completion of the scheme.

ROD has delivered this project from feasibility through the planning stage, firstly an EIS and NIS and subsequently a Part 8 and AA Screening for the Interim Scheme, then through Tender, Site Supervision and Contract Administration.

It is hoped that the scheme which is due for completion in early Spring 2017 will benefit cyclists and residents alike and the completion of this 2km promenade will greatly improve the leisure and commuting experience along 8km of the North Dublin Bay coastal route.



M8 M73 M74 Motorway Improvements Project-Design Check

Some notable elements in this multidisciplinary infrastructure project include:

- 12km of new build motorway, 16km of improvements to the existing motorway network and upgrades to 12 existing motorway junctions, most notably adding a third level at Raith Interchange, Junction 5 of the M74, one of Scotland's busiest junctions, linking north to south and east to west
- New build or modification of five bridges over operational railways, and a 2,000 tonne rail over road bridge, slid into place under an operational railway
- 350m long by 50m wide and 12m deep underpass with anchored secant pile walls, constructed beneath Raith Junction and the M74 within the River Clyde floodplain, and bounded by a Site of Importance for Nature Conservation and a Site of Special Scientific Interest
- Several 3 and 4 span steel composite bridges. 70m clear span crossing of the environmentally designated North Calder Water
- Extensive earthworks including grouting of mine workings, steepened slopes and treatment of soft and made ground
- Pavement design and assessment incorporating sound existing pavement where possible
- ITS including lane, speed and variable message signals, vehicle detection, CCTV, journey time and weigh in motion monitoring, and emergency telephones
- 5km of new pedestrian and cycle routes.

Ed Warren



A recent site visit by ROD's Project Management team to the M8 M73 M74 Motorway Improvements Project between Glasgow and Edinburgh, brought home the sheer scale and complexity of the undertaking.

As the independent checker for this major upgrade of the core of the Scottish motorway network, ROD has been responsible for detailed check of all disciplines, from stabilisation of historic mine workings through to ITS, with a key challenge being to ensure consistency between the different disciplines involved.

To see all of these design packages coming together in construction, while maintaining live traffic through the site, was a most impressive sight. Close collaboration with the contractors, and both permanent and temporary works designers, was important in overcoming the many challenges associated with this vital upgrade to Scotland's transport infrastructure, alongside the importance of maintaining our position of independence.



5 Minutes with.. John Paul Rooney

Describe yourself in 3 words:

enthusiastic, energetic, optimistic.

Where did you study?

Trinity

How did you get into engineering?

It was a natural progression. My extended family are all involved in the building industry in various guises.

What attracted you to ROD?

An Irish company with an excellent reputation. ROD was recommended to me by two separate 'mentor type' engineers – one a Contractor and the other a competitor of ours.

What is your area of expertise?

Well, some would say it's talking, but I am excited by what SuDS has to offer and hopefully my enthusiasm is catching.

Is there a stand out project / task that you are most proud of?

My masters thesis was on SuDS as I believe that green infrastructure is the future for drainage and flooding. So, although not the biggest project financially, winning a CEDR project on this topic with esteemed international partners was of special significance.

What do you do to unwind? Do you have a hobby?

Fine dining and DIY.

Who was your Mentor in ROD?

The past 12 years in ROD have been eventful to say least both professionally and personally. I have been fortunate enough to have worked alongside several highly talented people across the various departments in ROD. When I started with ROD in 2006 I worked under Shay Ryan who, as well as being a brilliant engineer is a historian, linguist, sports fanatic, opera lover and avid traveller with a wicked sense of humour. He always encouraged me and when he retired I was given the opportunity to lead the Site Development Services team, which provided the platform for me to progress in ROD.

Describe your most memorable day on the job?

So, the most eventful day was when I awarded a penalty against Harry (the MD!!) in the last minute of the Christmas charity football match which resulted in the 'Young Guns' winning the title. To compound his disgust, I also awarded him a red card for abusive language. This was unprecedented!

What are you most passionate about?

Mrs. Rooney.

CECA AWARDS 2016

One year after its reopening to the public in September 2015 the works undertaken to strengthen and restore Beaver Row's Iron Footbridge have been recognised at the inaugural CECA (Civil Engineering Contractors Association) 2016 Excellence Awards where the project received a highly commended award in the projects under €2m category.



Flooding and corrosion had damaged the 19th century iron structure to a point where without immediate intervention it would soon have been beyond repair. ROD & Blackwood Associates conservation architects in conjunction with Dublin City Council developed the strengthening and ironworks restoration methodology and brought these proposals successfully through the planning process in 2014 paving the way for the works to commence in 2015.

With Clonmel Enterprises Limited and their subcontractor Bushy Park Ironworks on board in March 2015 the works were completed over a 6 month period on time, within budget and to the highest standard. In addition to the recognition of the quality of the contractor's works by CECA, the design team also received personal commendations from local

public representatives upon its opening.

Although a challenging project, the end results were ultimately rewarding for all involved and ROD are proud to have been able to play its part in ensuring that this protected structure and a fine example of 19th century industrial heritage was properly restored and made safe for existing and future generations.

Other ROD related projects that were highly commended at the awards were Broadmeadow Estuary Viaduct Reconstruction by Jons Civil Engineering, Leopardstown Link Road & Roundabout Reconfiguration by Clonmel Enterprises Ltd and Carysfort Maretime Stream Improvement Scheme by Wills Brothers Ltd.

Christian Smith



Embracing ISO 9001: 2015 and ISO 14001: 2015

ROD has again been successful in our ISO 9001, ISO 14001 and OHSAS 18001 re-accreditation submission to the NSAI. Our Integrated QMS system, managed by our Quality Manager, Martin Brown, has now been operating for the past 13 years and has ensured that a high quality, consistent and reliable service is provided to our clients to meet the goals and aspirations of all clients. Following the issuing of the new ISO 9001: 2015 and ISO 14001: 2015 standards, ROD are now embracing the new challenges and opportunities posed by these new standards by updating our Integrated QMS to incorporate risk based thinking to our approach to service delivery. This will provide an added dimension to our decision making process, encouraging all our Project Managers to consider the risks posed to the successful delivery of our services.

“All our Management Team is fully committed to the integration of the new standards, and is actively involved in its development, management and implementation. The consultancy community will have different approaches to the new standards. Key to ROD’s success will be defining our own internal and external context, to ensure that the concept of risk can be managed through effective leadership across all the services we provide”. - Martin Brown, Quality Manager



Engineers Ireland CPD Accredited Employer 2016-2019

ROD’s commitment to the continuing professional development of our staff and setting high standards in support of lifelong learning was recently recognised by Engineers Ireland, following our successful re-accreditation to the Engineers Ireland CPD Accredited Employer standard for a further three years up to 2019, which is the maximum possible re-accreditation duration. Extensive evidence was provided by ROD’s CPD committee through submission and subsequent audit on all aspects of our CPD policies and processes, in respect

of various Engineers Ireland CPD criteria, all of which were satisfied at either ‘Advanced’ or ‘Transformational’ level. We are very pleased with the continued successful benchmarking of our CPD efforts against a rigorous standard, as we recognise that our CPD systems play a vital part in how we attract, retain and develop people in all areas of our business. CPD also enables us to continuously improve our processes to achieve our strategic business objectives and prepare ourselves for future challenges.

Ed Warren



Wellness Week

In ROD the service we provide to our customers comes from the skills, ingenuity and creativity of our employees. Our employees are the forefront of our business. Therefore our employees and their wellbeing are very important to us.

We believe that an investment in our employees is money well spent. To that end we held a "Wellness Week" in our Sandyford office from 12th to 16th of September 2016. The week was an opportunity for employees to have easy access to information and supports that may help them to make some lifestyle changes, that would impact their health in a positive way. This year our focus was mainly on mental health, helping employees understand what may influence this positively and negatively. The week included several events each day including talks from AWARE on "Positive Mental Health At Work"; massages & onsite guided meditation sessions; a talk from our company GP on Men's and Women's health; healthy cookery demonstration & presentation; VDU assessments

and our annual flu shots for employees and their partners. The Wellness Week also saw the launch of our Employee Assistance Programme (EAP) for all staff. Our EAP is a support system across different mediums designed to support employees who might be currently going through a difficult time by means of phone counselling, face to face counselling as well as internet tools and resources. We also took the opportunity and theme of the Wellness Week to check on our employees stress levels within the work place and launched the "Work Positive Profile" from the Health and Safety Authority checking for stress in the workplace. The week seemed to have a very positive reaction from our employees and we hope to make this an annual event.

Clare Valente



Meet the New Crew..

We are pleased to welcome the 2016 recruits to ROD and look forward to their valued contribution to projects in the coming years.



Stephen Shortall

On the graduate programme, Stephen joined ROD in September having graduated from Trinity and is working with the Buildings Group.



Niamh Burke

Niamh is an aquatic ecologist with over 9 years experience in ecological monitoring, impact assessment and conservation with a specific interest and research background in aquatic ecology.



Patrick Kelleher

Patrick joined ROD in September as a Graduate Engineer with a degree from Cork Institute of Technology and a MEngSc in Information Technology in Architecture, Engineering and Construction at University College Cork.



Colm Hoey

Colm joined the ROD graduate programme in September of this year having graduated from Queens University.



Iwona Formanowska

Iwona has over 9 years experience in road and transportation projects including highway, urban and rural roads, streetscape upgrade, and pavement rehabilitation schemes.



Andrew O'Connell

Andrew is a UCD graduate and has joined our Bridges Group having recently returned from Wellington, New Zealand.



David Kiely

David joined ROD in June 2016 after completing a BEng in Civil Engineering in DIT



Thomas Houlihan

Thomas graduated from CIT and became part of the ROD Team in October of this year. He is currently working in the bridges department whilst on the ROD graduate programme.



Gemma Rothwell

Gemma is a recent graduate from UCC and joined the ROD Environmental Team in September as a Graduate Environmental Scientist.



Kate Moore

A UCD graduate, Kate joined the Environmental team as a Field Ecologist in July this year.



Lee Ward

Lee joined the Buildings group as a trainee technician in September and is also studying Civil & Structural Engineering at DIT.



Gabor Dosa

Gabor joined the ROD Transportation group in September as a trainee technician while also studying at DIT



Warren Vokes

Warren is a graduate of UCD and joined the Environmental team as a Hydrologist/Environmental Scientist in May of this year.



Frances O'Kelly

Frances studied at DIT and joined ROD in July 2016. She is a qualified spatial planner and social scientist with 10 years experience across the planning spectrum.



Ernest Etim

Ernest graduated from Trinity and joined the Transportation group as a Graduate Engineer in September.



Stephen Bohan

Stephen returned to ROD in the role of Senior Engineer in August to work on construction stage projects in Ireland.

