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CIF Outlook

Irish Water Focus

CitA Board Member Interview Series



Irish Construction
Excellence Awards 2020
Finalist in 9 Categories

JOHN PAUL CONSTRUCTION

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Health, Safety and Wellbeing Category
Safety Leadership



Commercial under €10 Million Category
Hatch Student Living, Copley Street

Fitout or Refurbishment over €5 Million Category - 2 Windmill Lane (2WML)



Commercial over €10 Million Category - 1-6 Sir John Rogerson's Quay (1SJRO)



Public / Heritage Category
The Shelbourne Hotel



Leisure or Tourism Category
The Hyatt Centric Hotel



Industrial over €10 Million / Civil Engineering & BIM Excellence Categories
Lidl Regional Distribution Centre

PAUL

John Paul Construction

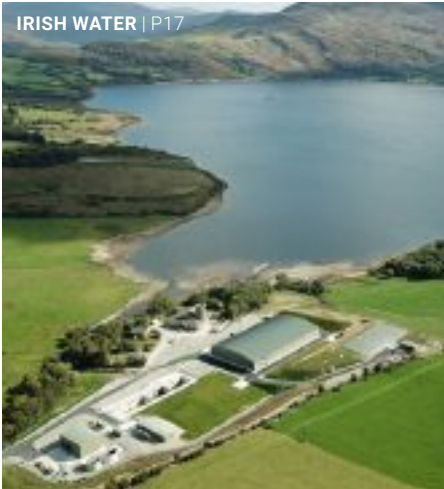
CPAS | P11



CIF OUTLOOK | P13



IRISH WATER | P17



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Inside

NEWS SECTION

- 2 News Round Up & Comment

EXPERTS & ANALYSIS

- 4 Arthur Cox
Legal File
- 6 Brewin Dolphin
Time Poverty
- 9 Surety Bonds
Industry Analysis
- 11 CPAS
Future of Pensions

FEATURED

- 13 CIF
Industry Outlook
- 17 Irish Water
Capital Works
- 27 GMC Utilities
Water Sector Project Portfolio
- 30 Ryan Hanley
Water Sector Technical Expertise
- 31 USSR Ltd
Successful Sewer Rehabilitation
Works
- 99 CitA Board Member Interview
Emma Hayes

SPECIAL FEATURE

- 33 The ICE Awards 2020
Finalists Showcase

MEET THE ICE AWARDS 2020 FINALISTS

- 37 Commercial
- 41 Industrial
- 45 Civil Engineering
- 51 Education Building

- 52 Healthcare Building
- 55 Fit Out or Refurbishment
- 61 Leisure or Tourism
- 62 Public or Heritage
- 64 Residential
- 67 International
- 69 Specialist or Specialist
Services Contract
- 73 Construction Project
Manager
- 75 Health, Safety & Wellbeing
- 81 Innovation in Construction
- 83 BIM Excellence
- 87 Third Level Course -
Postgraduate or CPD
- 91 Construction Product
Innovation

EMMA HAYES | P99



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 content and to access the Irish building archive



PJ Rudden launches consulting firm

Aengus Consulting is a new Irish consultancy established to advise on improving construction project delivery. Founded by PJ Rudden former RPS Director and a former President of Engineers Ireland, the new firm will assist both public and private sectors “to build better into the future.”

“Ireland is now challenged to deliver major infrastructure projects to meet the demands of future population growth, in terms of housing and associated support services. The next generation of projects in Project 2040 will have to be smarter in terms of innovation, circular economy, climate proofing, digital planning design and construction. We have to learn from the mistakes of the past,” stated PJ Rudden.

“Cost overruns often derive from low budget estimation and tendering as a result of the lack of planning and collaboration between clients and contractors in terms of contract conditions. Better public communications

are needed at all stages of the infrastructure cycle from planning through design, procurement and construction. Projects are experiencing programme delays by inadequate or late stakeholder consultations, some of which fail to connect in everyday language with the project audience. Many necessary projects completely fail in this respect.”

“We now need to place both clients and stakeholders at the centre of projects so they can have a shared participation in project outcomes. We need to manage public expectations better with regard to the unavoidable temporary disruption which infrastructure provision can necessarily cause,” concluded Rudden.

PJ Rudden is a chartered engineer who has led the delivery of many major national projects over the past 35 years and can be contacted through the company website www.aengusconsulting.com ■

Housing election promises must address blockages in the system

The CIF's Irish Home Builders Association is inviting all new TDs and local politicians to a series of regional roadshows. The purpose of these meetings is to inform politicians about the specific challenges preventing homebuilding in their areas.

Director of Housing, Planning and Development with CIF, James Benson said: “The reality is that homebuilders face multiple barriers preventing them from building the numbers of homes people require. These barriers are the reason people can't secure homes, rents are high, social housing lists are swelling and more and more young couples are in ‘rental purgatory’. Housing was the key issue in the last election so it's vital that whoever forms the next Government understand the challenges on the front-line of housing delivery in Ireland today.

“We're inviting local politicians and TDs to attend and hear first-hand some of the barriers facing homebuilders. The workshops will also provide the latest information on all housing and planning issues to ensure that companies are up to date with changes in legislation and regulation prior to engagement with statutory agencies.”

The IHBA workshops will include presentations and expert panel discussion including representatives from industry, Bank of Ireland, the Office of Planning Regulator, Irish Water and ESB Networks.

The Workshops are open to members and non-members and will provide an opportunity for updates on the regulatory and economic environment affecting homebuilders. Visit: <https://cif.ie/ihba-workshops/>

ABM Group celebrates 25 years in business

ABM Group celebrated a quarter of a century in Business on Friday, 7 February at an event in the Gravity Bar in the Guinness Storehouse, Dublin.

Company Directors Pat O'Neill, Sean Minihane and Brendan O'Neill were joined on the night by a myriad of their valued clients past and present from Ireland, the UK and mainland Europe along with ABM staff from offices around the globe.

The night was a nostalgic reflection on the portfolio of achievements ABM has built up in both the construction and civil engineering industry over the last 25 years.

Going on to survive the recession ABM has built an exceptional team that's now



over 150 employees strong. Today, the ABM Group is comprised of ABM Design & Build, ABM Precast Solutions, ABM Mosty and EMJ Plastics.

ABM Group is now a strong brand that is recognised and trusted nationally and abroad. Sean, Pat and Brendan put their success down to the right mix of ambition, pride in doing a good job, an ability to bring like-minded people together and most importantly trust. “We would like to thank everyone who took the time

out to join us on the night and celebrate the occasion with a pint of Arthur's famous stout. ABM Group looks forward to building a bright future for the next 25 years.” ■

Liam Kenny appointed John Paul Construction Managing Director

The Board of John Paul Construction announced the appointment of Liam Kenny as Managing Director in January.

Liam succeeds Eamon Booth, who becomes a non-executive director of the company.

Liam joined the company in 2004 and has a strong track record of delivery for global multinational organisations in pharmaceutical, data and logistics as well as in the commercial and residential sectors. He has operated at director level since 2011 and spent a number of years in the Middle East where he was responsible for the strategic management and growth of JPC's associate company Absal Paul.



Commenting, Liam said: "I am delighted to take on the Managing Director role from Eamon, who has provided invaluable leadership over many years. The company is on a very solid footing with an excellent client base across diverse sectors. Our management and staff are some of the best in the industry and I look forward to working with them in continuing to build world class projects for our clients in Ireland and abroad."

Kirby - Building Leadership Capability



Jimmy Kirby, Executive Chairman,
Mark Flanagan, Group Managing Director

After eight years of strategic and sustainable growth, through the delivery of operationally excellent mechanical and electrical engineering and contracting services for national and international clients, Kirby is pleased to announce key management progressions.

Jimmy Kirby, who led the development of Kirby as Strategy Director through strategy formulation and execution from 2011 to 2015 and subsequently as Group Managing Director, has progressed to the role of Executive Chair.

Jimmy will continue to lead areas of the business for key clients and as Executive Chair, will guide the formulation and development of strategy and organisational capability.

Mark Flanagan, who successfully led the development of the company's Operations

Team and their delivery of Operational Excellence over the last eight years of growth, has progressed to the role of Group Managing Director.

Mark innovatively led the development of the 'Kirby Way' lean processes and the creation of the 'Kirby Academy'. He is passionate about continuously delivering value to clients and developing strong partnership-based relationships. Mark, as Group Managing Director, takes on the responsibility for the overall performance of the company and leads the group through its next phase of capability development and growth.

Kirby is a leading mechanical and electrical engineering contractor employing over 1,000 people with operations in Ireland, the UK and mainland Europe. ■



Above l/r. Sean Meagher has been promoted to Associate Director – Commercial, Giedre Visockaitė has been promoted to Associate Director – Strategy and Marketing, Henry McCann has been promoted to Group Operations Director, Mark Flanagan, Group Managing Director, Brian Burke has been promoted to Operations Manager – Connacht, Ruairi Ryan has been promoted to Associate Director – Operations and Mikey Ryan has been promoted to Associate Director – Business Unit Leader – Operations Connacht.

Comment

ALL CHANGE!

The start of 2020 marks a number of changes: new decade, new political reality, and a newly redesigned Irish building magazine. Change can sometimes be difficult but change we must. The construction industry in Ireland has been a vehicle for change in many areas over the past decade. The industry has embraced construction technology and diversity; improved safety on-site and is tackling mental health and wellbeing. More is needed but we are heading in the right direction.

In this issue, we bring you the ICE Awards 2020 Finalists. You can read the descriptions of the best Irish construction projects all competing for the upcoming Awards.

Irish Water's Asset Delivery team talk to us about the organisation's capital expenditure, delivering €3.5bn of work over five years, and we hear from the consultants and contractors that plan, design and undertake the work.

CIF Director General Tom Parlon tells us about the Construction Sector Group and the benefits this will have for the industry and the country. Tom also tells us about the CIF campaigns and events planned for 2020. It is a busy year for the construction body.

Throughout 2020 we will bring readers interviews with CitA Board Members. In this issue, we talk with Digital Built Consultants Managing Director and CitA Board Member Emma Hayes about the changes she has witnessed within contractors' organisations over the past decade with companies developing in-house BIM expertise. Emma tells us how the challenges of building a BIM team can be overcome.

As always we have news, expert views and analysis, and much more. And, on the topic of news, best wishes to PJ Rudden who has started a new consultancy firm, Aengus Consulting.

And if all that change isn't enough, the ICE Awards Gala moves to The Convention Centre Dublin for 2020 on 28 March. See you there! ■



Liquidated Damages

– SO WHAT’S NEW?

Everyone working in construction is familiar with mechanisms for managing delays to the works being carried out by the main contractor – an entitlement to an extension of time for the contractor where a delay event occurs which delays completion, and on the other side, the entitlement for the employer to apply liquidated damages for any delays to completion beyond the contractual completion date for which the contractor is responsible under the contract.

BUT WHAT are liquidated damages, how are they determined and when will they apply? This article takes a look at some of the more frequently asked questions on liquidated damages and some of the more recent developments.

Why have liquidated damages in the first place?

Typically, where a party breaches its obligation under a contract, the other party will be entitled to claim damages in respect of the losses it suffers by reason of that breach. In construction, in the event of delays to completion, in the absence of a provision for liquidated damages, an employer would have to prove its actual loss incurred by reason of the delays to completion. Not only can this be challenging, and expensive, it also creates uncertainty, as the contractor’s liability to damages for one week’s or one month’s delay would not be known until the actual damages suffered by the employer at the time of the actual delay were assessed. This uncertainty is not in either party’s interests.

For this reason, it is commonplace for the parties to agree that a liquidated (i.e. fixed) sum will be paid as damages for late completion, usually at a daily or weekly rate¹. Liquidated damages (“LDs”) provisions are beneficial for both parties: for Contractors, it is vital to have as much certainty as possible in respect of potential exposure to damages, including in many cases, seeking to negotiate a cap on liability or to exclude certain heads of loss; for Employers, liquidated damages provide a relatively certain right of recourse against the Contractor in the event of delays to completion for which the contractor is responsible, while avoiding the time and expense in having to prove the actual loss incurred.

Despite being commonplace, questions often arise with regard to the operation of the LD mechanisms and their enforceability. We have touched below on some of these most frequently asked questions.

How do you determine the amount of liquidated damages which should apply under the contract?

The rate of liquidated damages which is included in a contract should be based on a genuine pre-estimate of the loss which will result from the breach of contract, namely the delay to completion of the works. A simple example, in the case of a commercial development, is to base liquidated damages on the anticipated rent payments from a tenant which would be lost if construction of the development is delayed. This loss would be quite easy to calculate (and could be supported if the LDs were ever challenged as a penalty (see below)). However, in many instances, the likely level of lost rent due to delays is far greater than the contractor market can reasonably carry, and a view has to be taken on the actual LDs included in the contract.

In other situations, assessing the loss resulting from delays is less clear cut and this exercise becomes less straightforward where the likely loss is difficult to estimate, such as loss of profit, loss of opportunity or loss of reputation. Generally, provided an employer can show that it made a genuine attempt to assess that loss, and has kept a note of that assessment, again, the LDs should be able to resist any challenge. This difficulty in determining the loss resulting from delays at the time the contract is entered into was one of the reasons the UK courts have refined the test of what LDs should be to include protecting a legitimate commercial interest, as discussed further below.

Do you need to prove that loss was suffered before you can levy LDs?

No. The primary purpose of a Liquidated Damages clause is for the parties to have certainty as to the damages that will apply in the

event of the specified breach, generally, delays to completion and to thereby avoid the time and expense involved with investigating and proving actual loss suffered. As noted above, liquidated damages, also sometimes referred to as ‘Liquidated and Ascertained Damages’, are intended to represent a genuine pre-estimate of likely loss which will be suffered by the employer in the event of a delay and courts or arbitrators will not generally look behind whether that pre-estimate was in fact correct or reflected the actual losses suffered.

When will a Liquidated Damages provision amount to a penalty?

The key decisions on liquidated damages have arisen in circumstances where the paying party has sought to challenge the enforceability of the LDs on the basis that they are, in fact, a penalty. If a Contractor can prove that the liquidated damages clause is designed to deter it from breaching the contract, i.e. the main function of the clause is to act as a deterrent by ‘penalising’ the defaulting party, rather than providing compensation for the breach, the provision will likely be held to be a penalty, and thus unenforceable. The authoritative position on this issue remains the principles stated by Lord Dunedin in the House of Lords decision *Dunlop Pneumatic Tyre Co v New Garage & Motor Co* [1915] A.C. 79, HL (Dunlop), whereby, relevantly:

“The sum will be held to be a penalty if the sum stipulated for is extravagant and unconscionable in amount in comparison with the greatest loss that could conceivably be proved to have followed from the breach...”

The Dunlop decision has been applied and upheld in the Irish Courts. More recently, a new test has been evolving in the UK, following the decision by the UK Supreme Court in *Cavendish Square Holding BV v Talal El Makdessi* [2015] UKSC 67 (Cavendish), in which Neuberger and Sumption L.JJ stated as follows:

“The true test is whether the impugned provision is a secondary obligation which imposes a detriment on the contract-breaker out of all proportion to any legitimate interest of the innocent party in the enforcement of the primary obligation.”

The principle in *Cavendish* has not yet been followed in the Irish courts, so the Irish and English positions are no longer aligned on this issue although arguably, the *Cavendish* decision’s relevance will be in those cases where estimating the likely loss which will flow from the breach is simply not feasible.

A recent Irish Court of Appeal decision provides a helpful summary of certain principles to be considered in relation to penalties: 2

1. The onus of establishing that a clause is a penalty rests on the party alleging same.

2. The question of whether a clause is penal must be assessed at the time the agreement was entered into, not at the date of the breach.

3. The courts are reluctant to interfere with the terms of a contract agreed between two parties of equal bargaining power. The willingness to do so in relation to a clause which is determined to be a penalty is an exception to the general rule.

If responsibility for the delay does not rest entirely with the Contractor, can LDs still be levied?

If LDs apply in respect of either the Completion Date or a specified milestone under a construction contract, those LDs will begin to accrue, usually on a daily or weekly basis, from when the Completion Date or relevant milestone was missed. It is often the case, however, that the relevant delay is attributable to a number of factors, some of which the contractor has not taken responsibility for under the contract. It will generally be for the contract administrator to determine whether an event has occurred which will entitle the Contractor to an extension of time such that the contractual date for completion can be clearly determined. Where this date is missed, many contracts require the contract administrator to also issue an opinion stating when the work should have been completed before the Employer’s entitlement to apply liquidated damages will be crystallised. It is also more common for contracts to expressly deal with concurrency, namely, where a delay is due to both contractor and employer default (under the contract). An entire article could be dedicated to the topic, but in some contracts, entitlements can be significantly impacted by how this issue is dealt with.

It is also common for there to be a requirement for the Contractor to submit a notice of claim for an extension of time to the Completion Date within a certain timeframe of the events giving rise to the delay event, failing which the Contractor will lose its entitlement to claim an extension of time.

Can LDs be levied after a contract is terminated?

It depends. Recent caselaw in the UK has cast some uncertainty on whether LDs survive termination of a contract. What is clear, however, is that the issue will heavily depend on the drafting of the construction contract. Following the UK Court of Appeal decision in *Triple Point Technology Inc. v PTT Public Company Ltd* (2019),³ it appears

that where a provision clearly expresses that LDs will be payable up to the date of that the relevant work is accepted, termination of the contract prior to completion will result in an entitlement to LDs falling away, as the clause in question no longer has any application to the circumstances. In that instance, the Employer should be entitled to general damages as opposed to LDs. For LDs to survive termination of a contract, the drafting of the contract needs to expressly and unambiguously state so and be clear as to the allocation of risk upon delay.

And does it all matter?

As many will know, LDs are often not applied in practice. This does not mean they are not relevant, and LDs often form part of negotiations of final accounts on projects, or are counterclaimed by employers to defeat, in whole or part, contractor claims for extensions of time and loss and expense. Increasingly, they are also relevant to related transaction documents, such as development agreements or forward purchase structures, where LDs which have accrued under the construction contract will become payable to a third party where delays to completion occur. So understanding how LDs operate is always going to be important! ■

1 Liquidated damages are also commonly used in respect of meeting certain performance criteria in the energy, pharmaceutical and process engineering sectors, for example.

2 *Sheehan v Breccia and Ors* [2018] IECA 286 (unreported), at [22].

3 *Triple Point Technology Inc. v PTT Public Company Ltd* [2019] EWCA Civ 230

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TACKLING THE ISSUE OF ‘TIME POVERTY’

WITH BREWIN DOLPHIN

In our experience, ‘Time Poverty’ is one of the biggest obstacles that clients face when it comes to their finances. Invariably, they are successful businesspeople or professionals whose success is based on long hours and an intense work environment. The unfortunate corollary to that success is a lack of time and bandwidth to focus on their own financial well-being. The analogy of the cobbler’s children having holes in their shoes often springs to mind!

THE CHRISTMAS and New Year periods can offer some respite for busy individuals; yes, the period represents an opportunity to relax, to spend time with family and friends, and to plan for the year ahead, but the start of 2020 also represents an opportunity to reflect on one’s overall wealth plan and financial wellbeing. The fact that the period coincides with the end of one tax year and the beginning of the next merely augments the opportunity. So what exactly should one reflect on? Within this article, I propose to briefly consider three areas: retirement planning, succession planning, and overall wealth planning.

As we regularly point out, a pension is not merely a retirement planning tool; it can be the cornerstone of a family’s wealth planning strategy due to the combination of tax-efficiency and Einstein’s ‘Eighth Wonder of the World’, compounding. However, the power of compounding is a moot point unless the individual has a robust and coherent investment strategy. We frequently meet prospective clients whose experience with pensions has been poor, but this is typically a result of malinvestment, suboptimal advice, and a lack of

clarity around charges. At Brewin Dolphin, our role is to ensure that the pension structure and retirement strategy are optimised for the client in a manner that is transparent, and then to leverage our significant investment resources to manage the underlying monies prudently. For prospective clients (who typically suffer from the aforementioned ‘time poverty’), this is an approach which is far more likely to lead to the desired result, a

“People’s preference nowadays for the Approved Retirement Fund (“ARF”) makes good investment advice even more important in the context of retirement planning.”

larger retirement fund. I would urge you to review your retirement plan and to take action in the first quarter of 2020. In our experience, far too many people have multiple pension policies and very little visibility on the value, cost, or performance of same. The first quarter of 2020 represents an opportunity to consolidate one’s pension arrangements into a single structure with a single overarching retirement plan.

People's preference nowadays for the Approved Retirement Fund ("ARF") makes good investment advice even more important in the context of retirement planning. Whilst poor advice and underwhelming investment performance can have a negative effect on all types of investment, their effect on an ARF can be catastrophic. The financial services industry loves its jargon and acronyms, but, in simple terms, an ARF is merely a post-retirement pension fund. As opposed to purchasing a guaranteed income for life in the form of annuity, the ARF-option enables a retiree to retain control of his or her pension fund and to retain the fund as an asset on the family's balance sheet. However the mortality risk of the annuity is replaced by the investment risk of the ARF. And given that the State compels an ARF-holder to withdraw 4/5/6% per annum from his or her ARF, coupled with the fact that the retiree is, in all likelihood, no longer accumulating wealth, any lack of a robust investment strategy can be devastating over time. Accordingly, it is crucial that the retiree seeks high-quality investment advice from a well-resourced provider. It is also vital that the retiree's investment plan is constantly monitored as his or her circumstances evolve and the investment and legislative environments change.

"Whether your requirement is as basic as a Will or Enduring Power of Attorney, or more complex, it is probably a conversation that is worth having with an experienced wealth advisor."

On the surface, it can seem preposterous to refer to a €3,000 exemption in the context of a family's overall wealth. Nonetheless, the Small Gift Exemption can be a useful tool for families seeking to maximise their wealth. An obvious example would be grandparents who transfer a total of €30,000 per annum to their son, daughter-in-law, and three grandchildren. Assuming that the respective €335,000, €16,250, and €32,500 tax-free thresholds of the son, daughter-in-law and each grandchild will be utilised in the future, such planning saves approximately €10,000 per annum based on the current 33% rate of Capital Acquisitions Tax. However, it is important to note that the Small Gift Exemption is a 'per annum' amount. Once a calendar year has passed, the ability to transfer €3,000 for that year is lost; accordingly, it is important not to miss the opportunity to avail of the exemption during 2020. The Small Gift Exemption can also be useful in the context of inter-family loans. As a result of the current low interest rate environment, it is possible for parents to lend significant sums of money to the next generation without triggering any immediate tax consequences.

However, in the context of succession planning, it is important not to forget the

primary purpose of wealth; in the first instance it is there to provide and care for the people who created it. It is only when it is clear that any and all eventualities such as nursing home or medical care can be financed that families should look to transition wealth. And even then, parents often worry about the wisdom of landing a significant sum of money into their child's bank account, even if that child is a young adult. Will such a course of action kill their ambition for example? And what if the "child" squanders the funds? Luckily there are mechanisms whereby parents can retain control over the underlying monies; one such structure is the Family Partnership. The attraction of the Family Partnership is that it enables the parents to retain control over the Partnership assets. In addition, if the Partnership is funded by way of a loan, the loan can be recalled. The main advantage of the Partnership from a tax perspective is that, by allowing future investment growth of any Partnership assets to accrue to the next generation, this can limit the family's overall inheritance tax exposure. A further advantage of the Family Partnership structure is that, unlike, say, a Trust, the Partnership does not trigger any potential adverse tax consequences. For many families, that combination of retaining control and tax efficiency is an attractive one.

The early part of the year is also an opportune time to reflect on the overall health of the family's balance sheet and to, perhaps, commence discussions with family members regarding an overall wealth and succession plan. When doing so, it is key to ensure that you have access to the appropriate tax and legal advice for your family. We frequently assist clients in such circumstances by facilitating 'beauty parades' or introductions to specialist advisors. Whether your requirement is as basic as a Will or Enduring Power of Attorney, or more complex, it is probably a conversation that is worth having with an experienced wealth advisor. In our experience, most clients have a Will but it tends not to be optimised from a tax perspective. The Enduring Power of Attorney is a rarer beast but is, in my view, an absolute necessity for the majority of clients. It is essentially a mechanism for the individual's nominated representatives to act on behalf of the individual in circumstances where he or she becomes incapacitated; not the most uplifting of conversation topics for the dinner table, but an important form of 'earthquake insurance' for a family nonetheless.

The job of the wealth advisor is, in broad terms, to make clients' financial lives easier

and their families' balance sheets stronger through the delivery of robust and high-quality investment and financial planning solutions. However, this does require engagement from the client. Once 2020 kicks off in earnest and business or professional life start to ramp-up again, it can be difficult to focus on one's own financial wellbeing; the net outcome is usually procrastination and deferral which, in the longer term, nearly always leads to poor outcomes. That poor outcome may seem distant and nebulous, so perhaps it is better to think of it in more real terms; neglecting one's financial plan today will almost certainly limit one's ability to fund a healthy level of gin and tonics in retirement! If that vista sounds as appalling to you as it does to me, you should contact an appropriately resourced wealth advisor. ■



**Andrew Fahy,
Wealth Planning,
Brewin Dolphin**

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Housing

AN ISSUE THAT SPLIT THE NATION

Housing completions in the Republic of Ireland or should I say mainly Dublin and a few surrounding counties increased by 19% (on 2018 figures) to 21,500 homes for 2019 according to the Goodbody BER housebuilding tracker. The tracker shows that 6,600 homes were completed in the final three months of last year. While growth in housing is positive unfortunately it is way off where we need to be, according to the Central Bank Economic Letter on housing published 10 December 2019 some 34,000 houses will have to be built each year for the next decade and that is just to meet demand assuming inward migration stays close to current levels.

TO ADDRESS the current housing crisis, the word crisis is apt because that is what it is, I also believe it is what had the greatest impact on the outcome of our election. The 'Rebuilding Ireland Action Plan' in 2016 set out an overall target to increase the supply of housing to 25,000 per annum by 2021, 15,000 in 2016, 18,500 in 2017 and 20,000 to 21,000 in 2018, this was coming from what was considered a low base of 12,666 units in 2015, unfortunately the figure of 12,666 was well over estimated and the actual completion figures were closer to 6,000+ units. The problem with the overestimated completion figures means that the requirement to get to 25,000 homes per annum is way too low and according to the Central Bank Economic Letter by Thomas Conefrey and David Staunton "will continue to contribute ongoing imbalances in Ireland's residential property market", in summary we have a housing lag which is going to be impossible to correct.

Pre and post-election the three largest parties promised to scale up housing production, Fianna Fáil promised to build 200,000 in the next five years equating to c. 40,000 per annum with Fine Gael jumping on the band wagon with a similar figure, this was followed up by 20,000 public homes each year to meet social and affordable need by Sinn Féin, promising an additional investment of €6.5 billion equating to a similar figure from the other two parties. On the whole an overly ambitious aim by all parties.

If it was possible to ramp up to these levels the market would have done so. There are multiple issues which will constrain the

ramping up of house building, available skilled labour being one major issue and increased cost of site acquisition and construction from other areas such as materials, financing, new building regulations and utilities all culminating in overall escalation in pricing. The level of growth we have already seen plus the additional growth a new government will want to put on the market could lead to a choke chain effect as firms fish in a shrinking pool of skilled labour. To sustain that level of growth would require at least a further 40,000 to 50,000 additional construction workers, to be honest I don't think we can fill those boots with skilled labour from our local resources, that pool is quickly evaporating.

"The lack of homes, the cost of housing and rentals, the long commute times, inadequate infrastructure and endless gridlock in Dublin were one element that contributed to political change."

The lack of homes, the cost of housing and rentals, the long commute times, inadequate infrastructure and endless gridlock in Dublin were one element that contributed to political change. A second element was rural Ireland who feel neglected, the lack of infrastructural investment whether that is roads, schools or FDI over the past 15 years has left a very sour taste in their mouths.

As evidenced by the skyrocketing rents in both commercial and residential we have

capacity issues, mainly in Dublin but that is where the larger corporates want to be because nowhere else is currently attractive enough. Our roads are grid locked with traffic and our trains bulging to capacity at peak times as workers are pushed further and further away from their place of work. If these problems are not addressed companies and workers may start to look elsewhere to set up home.

The next Government, whatever way it is made up, will have a very big job on its hands to satisfy the Irish electorate when it comes to housing, there is no easy fix. ■

Colm McGrath,
MD, Surety Bonds





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New Year, New Decade

AND WHAT MIGHT THE FUTURE HOLD IN THE PENSIONS WORLD

It doesn't seem that long ago since we celebrated the arrival of the new century and now we are into the 3rd decade of that century – time marches relentlessly on. As we settle into 2020 maybe now is a good time to reflect on the impact that time has had on our lives and to consider the future and what it may hold for us, in the pensions world anyway!

NORMALLY around this time of year we ponder on changes we can make in our daily lives and if you do not have a pension plan then maybe starting one could be one of your better New Year's Resolutions.

You may not feel that you need to save for your retirement but here's 3 things to consider – the State Pension amount, service gaps and longer life expectancy.

THE STATE PENSION

Firstly, think of your annual take home pay which you currently live on. Now, compare that figure to €12,912. Could you live on this amount a year? That's the maximum State Pension amount for a single person. Will this amount enable you to do all those things on your bucket list that you've planned for when you're finished work? I've heard the drop in income from the time you are working to the day you go on to State Benefits being described as falling off a cliff. Not a pleasant image and certainly something we all want to avoid if we can.

SERVICE GAPS

During your career, have you already or do you plan to take a break for one reason or another? Maternity or paternity leave, home care, rearing of children? This can affect State Pension entitlements and can also reduce the number of years you have to save towards your retirement.

LONGER LIFE EXPECTANCY

On a positive note, our life expectancy is increasing; 50% of those born today are ex-

pected to live to 100. And indeed some of our CPAS pensioners are over the age of 100 with the oldest being 105! As well as this, the State Pension age is increasing and will be age 68 by 2028. While living longer can be good news, what this also means is that our savings have to stretch further and last a lot longer. That €12,912 a year just isn't going to cut it.

TAX INCENTIVES

The Government want us to save for retirement so what incentives have they given us? Often going unnoticed because people pay pension contributions from their salary at source, the tax break on pension contributions is one of the most generous available from the Revenue. Tax relief is available at your marginal rate of tax and the table below shows you the net cost of a €100 pension contribution based on your current rate of tax.

And the tax breaks don't stop there. Employer contributions receive corporation tax relief as they are offset against profits before tax and they are not added to employee's salary as a Benefit in Kind. Investment growth on pension fund savings is tax free and at retirement, members can receive a sizeable amount of their fund as a lump sum also tax free (subject to Revenue maximum limits). Annual pension income is subject to tax under the PAYE system but as a pensioner the tax allowances are generous.

NEXT STEPS

Now is the time for the construction sector to make a difference to the future of all their employees through pension savings. CPAS can facilitate this on the same terms as site workers through the Construction Workers Pension Scheme or we can design a bespoke arrangement for individual employers and members through the Construction Executive Retirement Savings (CERS).

This year CPAS are delighted to be a sponsor of the ICE Awards 2020 and as the providers of choice for the construction industry we are proud to see that over 90% of the Award nominee companies are clients of ours.

CPAS talk your language so don't hesitate to call us today and we can get you started! You can call Paula on (01) 407 1429 or email pthornton@cpas.ie. ■



Paula Thornton,
CPAS Business
Development
Manager.

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REVU SAVES TIME IN MAJOR MTA PROJECT

The New York MTA's train signal system is outdated – it's the same fixed-block signal system that was originally used when the subway system opened in 1904, and it's prone to signal failures that cost New Yorkers time and money every day. However, a tool like Bluebeam Revu in the hands of Senior Project Engineer James Inglima of E-J Electric Installation Co. can save his company, and the entire city of New York, valuable time.

Contracts went out to install voltage sag correctors at all of the signal switchers, a time-consuming operation due to the immense scale of the NYC subway system. E-J Electric Installation Co., one of New York's largest electrical contracting companies and a regular contractor for the MTA, won the work to install sag correctors across 96 stations.

This is where Inglima comes in to do the job with Revu, Bluebeam's PDF based platform for editing, marking up and sharing blueprints. Inglima's task was to survey signal switchers, take pictures and document measurements, then create blueprints for the installation of the sag correctors. Traditionally, a job like this would require at least two days for each blueprint, but the team decided to try Revu on a tablet to see if they could save any time. The performance was so positive that even Inglima, a fan of Revu, was surprised by how much time they saved.

"This unique job was perfect for (Revu). For the amount of detailing in sketches in this thing, the equipment down there, it's perfect for going out and doing sketches instead of having to bring a clipboard and

hand sketching it with a ruler and doing all that," Inglima explained. "Being able to import pictures is huge, so we can take pictures of existing situations, and that way I can direct my foremen where I want them to be or how I want them to install something. I just use the existing picture and I could show it right on there."

The experiment worked. "We did 96 stations in 96 working days," Inglima said proudly. "I was able to use the signature tools that day, and everything got signed and sent out for production immediately. There was no turnover time, there was no going back to the office. I reckon we saved ourselves another 96 days."

Inglima noted that "The older guys have been doing it with a pen, paper, rulers and coloured pencils for years and years. And I show up with my tablet, and I'm in and out... it took me eight hours for the first one, but once you get it, 15-20 stations in, I'm done in five hours."

Inglima added, "We supplement a lot of our drawings now with sketches that we do in Revu."

There are still many challenges ahead for the NYC subways, but at least for Inglima and E-J Electric Co., they're taking advantage of the cost-saving solutions that modern technology offers and making the daily commute of millions of New Yorkers that much faster.

Start your journey with Bluebeam Revu.
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Changes in Construction in 2020

2019 was a busy year for the Construction Industry Federation (CIF) with construction output growing and successful campaigns, notably the much-praised Construction Safety Week in October. CIF Director General Tom Parlon talks to Irish building magazine about the year past, the CIF's objectives, campaigns and events in 2020 and discusses the establishment and work of the Construction Sector Group.

2019 WAS a successful year for construction and for the CIF. There was growth in construction and the numbers employed in the industry grew further. Output rose by 12% to €23 billion while construction employment grew by 6,000. Construction Safety Week was a major success and the CIF had more participants than in 2018. The CIF has been leading construction safety and each year encourages members to get involved. The event grows in popularity each year due to the support of members nationwide.

CONSTRUCTION SECTOR GROUP

The Construction Sector Group was established in 2019 and is comprised of senior civil servants and Construction Industry Council partners. Tom tells us about the benefit of this and recent work. "The Group will ensure the concerns of the industry are heard at the highest level. There was a series of meetings lately which addressed longstanding issues; notably, public procurement and the public works contracts were discussed."

Contractors have had bad experiences with public works contracts and due to the contracts unacceptable demands on contractors Tom says the Office of Government Procurement (OGP) is planning changes. "The OGP is proposing changes to the contracts and has a medium-term strategy, and this will be released in March. There is a feeling of positivity among contractors. However, the public works contracts favour the lowest price and this must change. This has negative implications for the quality of work and

collaboration between the contractor and client's team."

Aside from procurement, the Construction Sector Group is focused on digital technologies and the transformation of construction we are witnessing. "We are modernising the industry and we are looking for to create a Digital Construction centre of excellence and there is an internal working group focused on this."

"There is a legacy in construction, an image of it being hard physical work and parents have the wrong perception. We have members who are sponsoring the careers campaign and their employees are going out to schools and explaining what is involved in construction and career opportunities."

IMAGE

The CIF has a careers campaign this year to communicate to the public the opportunities that exist in construction. Construction is competing with other industries for the attention of young people and there is an inaccurate public image of construction based on old stereotypes. "There is a legacy in construction, an image of it being hard physical work and parents have the wrong perception. We have members who are sponsoring the careers campaign and their employees are going out to schools and explaining what is involved in construction and career opportunities."

Presently, sourcing talent within the country is an issue. The CIF and the Department of Jobs, Enterprise and Business are opening up Ireland to foreign talent he

explains. "There is a Trusted Partner Initiative agreement where people going for certain jobs will get priority for visas." Dealing with such issues concerning the industry has been a challenge due to there being no dedicated department.

Tom says that there is frustration among members that there is no 'Minister for Construction'. Tom came from an agricultural background into construction. Between 1997

to 2001 he was President of the Irish Farmers Association (IFA). He says for agriculture, there is a government department, a minister and junior ministers, and an education board – Teagasc. "There is substantial infrastructure for agriculture and when you compare the value of both industries, construction output this year is €23bn. This is far ahead of agriculture and food. Construction also employs more."

Tom tells us there is frustration dealing with industry issues as the CIF has to go to different departments with different issues: the Department of Education and Skills, the Department of Communications, Climate Action and Environment, the Department of Finance etc. "Having a Construction Sector Group with senior civil servants like Robert Watt will have a big influence on construction and how we go about solving problems in an organised manner," he adds.

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HOUSING

With the election, the CIF has a manifesto for the Irish Government with housing a key priority. He is clear about the critical role the industry plays. “All the political parties have ambitious targets. But these parties won’t be on sites building houses. It will be the people working in the construction industry.”

Building affordable housing is critical. The CIF wants to improve the first-time buyer’s grant. “We are proposing a state-grant shared equity scheme, which is something no political party has proposed. If the State gives out a 30% grant for a house they would own a stake in the house and this would be paid back over the lifecycle of the house.”

Increasing the Help-to-Buy scheme will be support to people buying or building houses. “We built just over 21,600 houses last year, and this is short of what is necessary, but it is what the market could afford. The Central Bank restrictions are tough on young people. A couple with an income of €80,000 are still not going to get a mortgage for buying a new house in the Dublin area.” The non-construction costs associated with house building make up 50% of the house cost and these are too high he says. “The cost of finance, utilities connections, land cost, charges by local authorities are high. Delays in planning also affect costs. An objector, not close to a development, can hold up a development for months. We are ready to engage with the Government on these issues, whatever the party, when they are elected.”

PROCUREMENT

It is a very competitive industry. Contractors are competing in tendering and in the recruitment of talent; in addition, procurement itself presents challenges. Margins on projects are still tight Tom says. “The complications with procurement are a nightmare. The risk on the public works contracts rests with the contractors when it

should be more evenly distributed.” There is also major frustration among civil engineering contractors regarding Project Ireland 2040. “Projects are not hitting the ground and there is a lot of bureaucracy in this area. We need to see machines starting work; not talk of projects coming in the future.”

Collaborative procurement is a topic the CIF has focused on. The organisation has pushed for more collaborative agreements Tom tells us. “CIF President Pat Lucey says we should get rid of the public works contracts and seeks a replacement in the global best practice contracts. I believe this is the direction we have to take. We must make public procurement work. There are international contracts that do not operate on the lowest price. Contractors are the people that can provide the most efficient way of working. A constant theme for us is collaboration and Early Contractor Involvement. The Construction Sector Group will make progress in this area.”

CAMPAIGNS & EVENTS

Tom speaks positively about the CIF campaigns for 2020. The CIF Diversity & Inclusion campaign has become popular among the construction community and he says we need to increase the numbers

of women joining the industry. “This is a major impediment as half of the workforce is women. We will push forward with our Diversity & Inclusion campaign. The CIF Construction Safety Week will be in October and this will be extended. We hope to be launching our careers campaign and appointing a project manager to oversee this.” As part of Construction Safety Week this year there will be a major focus on mental health

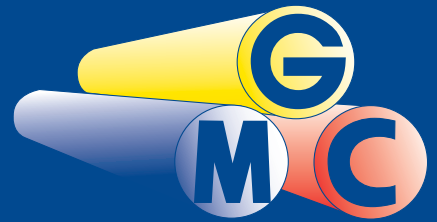
“All the political parties have ambitious targets. But these parties won’t be on sites building houses. It will be the people working in the construction industry.”

You can see the success of the CIF campaigns by viewing construction companies’ activity on social media platforms. The industry has a great interest in promoting their events and activities around the country.

Turning to large events, it is a packed calendar. The CIF Digital Construction Summit takes place in Croke Park in June. In Cork, the Southern Region Summit takes place in Páirc Uí Chaoimh in September. The big event, the CIF Annual Conference is on in Croke Park in October.

Aside from Safety Week, Tom informs us there will be a Health & Safety Summit in November. This will cover a variety of topics relating to physical and mental health. The CIF’s Irish Home Builders Association will have a roadshow this year, travelling to each branch around the country, starting in February and going through to May. International Women’s Day at Dunboyne Castle Hotel on 6 March will celebrate the work of foreign women in Irish construction. Noting the range of events covered, Tom credits members. “There are a great variety of events in 2020 and these are all well supported by our members in CIF ranches around the country.” ■





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Kerry Central / Lough Guitane

Delivering a €3.5bn Flow of Work

Irish Water's Asset Delivery team talk to Irish building magazine about the organisation's capital expenditure, delivering €3.5bn of work over five years, the required standards, the main programmes, standout projects and procurement.

BRIAN SHEEHAN, Head of Asset Delivery at Irish Water outlines to us the €3.5bn capital expenditure coming over the next five years and the standards achieved on completed projects. Before Irish Water was established there had been underinvestment in the water sector. Brian has responsibility for the end-to-end delivery of the majority of the Asset Delivery programme. He came to his current role having spent fifteen years at Gas Networks Ireland in design, construction, and project management appointments before joining Irish Water in 2016.

CAPITAL DELIVERY

The two objectives for Irish Water are to provide a safe and secure supply of water for customers and return wastewater back to the environment in a safe manner. The Irish Water Asset Delivery expenditure has three primary portfolios: Wastewater Capital (€1.5bn investment 2020-2024); Networks (€0.9bn investment 2020-2024); Water Capital (€1.1bn investment 2020-2024);

Each of the portfolios involves a combination of large projects and programmes of work focused within their particular areas.

Over the past four years in his role some of the standout milestones for Brian have been the increases in capital spending. "In 2016 capital spending was €350m. The capital spend in 2019 was €850m. The capital programme has doubled in scale and investment over the three years that I have been in charge."

Irish Water supports a large number of jobs. 3,000 people, both internal employees and the external supply chain, can be working on

Irish Water projects at any time he says. "We are a major player with regards construction employment in Ireland at present."

EXCELLENCE

The standout project for Brian over the past three years has been the Kerry Central Water Treatment Plant which serves 60,000 people. "This was delivered by Glan Agua within budget, on programme and won many awards including the Irish Construction Excellence Award for best Civil Engineering project in 2019 and the Engineers Ireland 2018 'Project of the Year.'" The Arklow Wastewater Treatment Plant will be another major project. Construction of this project will start in the next year Brian tells us. Arklow is the largest town in the country with no wastewater treatment.

PROCUREMENT

In the next five years, from 2020 to 2024, Irish Water's capital spending will be €3.5bn across the portfolios. Approximately €0.8bn will be spent per annum. This is the largest capital investment in the State. "In bringing our water assets to modern standards there will be a minimum of 10 years of investment over future capital plans," Brian adds.

Irish Water's work is procured primarily through frameworks where M&E and civils contracts are tendered to the contractors within each framework. Irish Water also tender projects on a once-off basis and established an Early Contractor Involvement (ECI) programme last year which will run for five years. Brian informs us. "This collaborative procurement approach has the

potential to deliver great value. Irish Water's three partners for the ECI programme are Glan Agua, EPS and Veolia Ireland." These companies will work with Irish Water from the early design of projects and take them through to construction. In 2016, Irish Water was working with one-off contracts he adds but researched alternative approaches. "Looking to the UK and mainland Europe, we identified and explored the benefits of partnering contracts. The ECI benefits we observed were getting the correct scope of works, getting contractor input into your design and only paying actual costs for works."

This is a move away from traditional contracts into a more collaborative approach that allows better management of risk and faster delivery times. "We can see that ECI will provide benefits and we are rolling out our first programme over the next five years."

Brian Sheehan,
Head of Asset Delivery
at Irish Water



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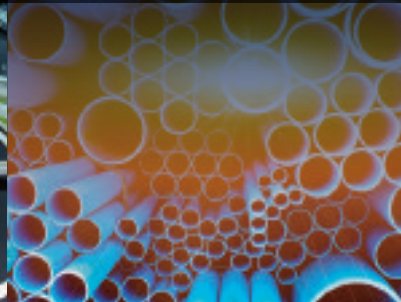
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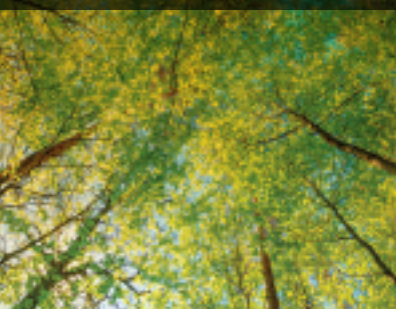
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Our anticipated investment over the ECI programme is approximately €400m. Projects will move at a quicker pace with this model.”

Irish Water wants to collaborate with contractors, moving away from the traditional procurement models and wants to test new innovative approaches. “We want to work more closely with contractors to deliver the very best outcomes for the customer,” Brian adds. In addition to adopting a collaborative approach, developing construction skills and expertise and improving safety standards within the water sector are key priorities for Irish Water.

The organisation has helped build skills including a cross-industry graduate programme that sees new graduates rotate between Irish Water and two other companies in the water industry at the start of their career. These skills will provide benefits to companies in the water sector, other sectors and will be used on future projects. Irish Water’s primary objective for contractors is to provide good safety management and won’t consider contractors that can’t meet their safety standards.

SAFETY

Brian says Irish Water have set out to improve the safety standards within the water sector. “Our goal is that everybody that works on our projects should return home in the evening safely to their family and friends.” There have been huge investments of time and money in safety he says. “We are seeing the benefits. This is an ongoing journey to continuously improve but we are satisfied with our progress to date.” The frequency of accidents has been reducing year on year and many projects are delivered accident free. Irish Water sees this as a major achievement for the whole supply chain. “For me, safety has to go beyond just basic compliance. We have regular interaction, workshops and events with our supply chain and staff to improve the safety ethos of the industry. Irish Water is the leading public sector organisation when it comes to promoting safety.”

From the largest contractor to the smallest contractor, each knows what the client’s requirements are and the standards that they have to meet. Impressively, in 2019 Irish Water had over 3.5 million man-hours of work and only 15 reportable incidents. However, Brian wants to further improve this record. “Our target is zero. We want to get to a point where nobody is injured on our sites. Unfortunately, 12 people lost their lives in the overall Irish construction industry last year and the whole industry needs to move away from this, having everyone going home safely.”

Overall, Brian manages a team of approximately 150 people and has project

and programme management, commercial management and specialist technical experts within the Asset Delivery team. This team has been developed since 2016 and has substantial expertise to deliver the organisation’s range of projects.

Irish building magazine speaks with Michael Tinsley, Wastewater Portfolio Delivery Manager, Stephen Seymour, Water Portfolio Delivery Manager and Paul Gray, Networks Delivery Manager and they tell us about some of their key programmes and projects.

“Irish Water is the leading public sector organisation when it comes to promoting safety.”

LEAKAGE REDUCTION PROGRAMME

Paul Gray manages the networks area, undertaking critical low-value high volume works required for water and sewage network improvements. A substantial portion of Paul’s time is spent on the National Leakage Reduction Programme, reducing the volume of water being lost from the network and improving water quality. He outlines the programme’s works to us.

Under the ‘Water Mains Rehab’ works, Paul oversees the fixing or replacing of old pipes. Under the ‘Lead Replacement’ initiative, lead pipes are removed from the network. The ‘Find and Fix’ leak repair initiative involves proactively locating leaks and fixing them, the initiative involves working on the householder side of the meter and repairing any leaks. ‘Non-domestic and Network Metering’ involves the installation of meters within the network and to non-domestic properties. ‘Pressure Management’ involves monitoring and adjusting the pressure of water in the pipes, either increasing, decreasing, or stabilising the pressure. ‘DMA Activities’ involves investigative surveys and possible upgrades to meters and connections on the 4,400 DMA areas in the network.

Lead is a major issue and its removal has been a success. Back in the 1950s and 60s lead was a standard material for pipes. 140,000 lead services were on the system before the programme. Over 16,000 lead services were removed last year and in 2018, 11,000 lead services were removed. Paul says these works are high-cost activities but they improve the customer’s water quality. “Since the Leakage Reduction Programme started, 28,500 lead services have been removed.”

From proactively finding and fixing leaks, 228,000 million litres of water per day have been saved due to the Leakage Reduction Programme. In 2019, Irish Water replaced 217 kilometres of pipe. In 2017 the organisation replaced 125 kilometres of pipe and 316

kilometres in 2018; totalling 661 kilometres of pipework. This work is carried out by local authorities and contractors. Over 4.5 years there was €500m allocated for the Leakage Reduction Programme, an average budget of €100m annually with €192m invested in 2019.

In terms of leakage reduction and ‘find and fix’, Irish Water is constantly testing new technologies to see which give the best result, both in finding the leaks e.g. using acoustic loggers and in fixing them using ‘no dig’ technologies. There are controlled trials and Irish Water have high standards for adopted technologies. In urban areas Horizontal Directional Drilling or moling, which are ‘no dig’ techniques, are employed.



Michael Tinsley, Wastewater Portfolio Delivery Manager
Stephen Seymour, Water Portfolio Delivery Manager
and Paul Gray, Networks Delivery Manager



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USA Ltd. and USSR Ltd. have worked for many clients over the years, both in Ireland and further afield. These clients range across numerous sectors such as Government bodies (Ireland, England, Norway, etc.), the industrial sector (Diageo, IBM, Intel, etc.), the pharma industry (Proctor & Gamble, Wyeth, Elan, etc.) and the transportation industry (Irish Rail, London Underground, Dublin Airport Authority) to name a few. Large scale projects, and small one off services are offered.

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Swords Water Main Rehabilitation

There are five contractors in eight geographical areas Paul informs us. "In the North East and Dublin there is GMC Utilities, Northstone in the North West and the North, Ward & Burke Construction in the Midlands, Coffey Northumbrian in the South West and South East, and ShareRidge Civil Engineering are in the Mid West." These contractors employ approximately 1,300 people on the leakage programme.

Mobilising the teams and going about the work on this programme was a major undertaking he says. "We work all over Ireland, our people work everywhere, installing meters, replacing lead pipes, finding and fixing leaks."

Quality was a factor in the contractors winning work. Safety is also a major issue. "We set up Quality and Health & Safety forums and work with the contractors as a group to continuously improve their work practices. We have top class contractors and we try to enhance their high standards even further."

NATIONAL DISINFECTION PROGRAMME

Stephen Seymour tells us the National Disinfection Programme was established due to the need to ensure the quality of drinking water across the country was disinfected to a safe standard. "The EPA said their highest priority was to get the disinfection systems across the country to meet the standards set by the EPA to ensure all drinking water is treated to a safe and potable standard." There are over 800 treatment plants around Ireland and each one disinfects the water before it goes into the network, he explains, outlining the work process. "A lot of these were deficient, so in 2015 pilot contracts were awarded and works commenced using an early contractor engagement process. Contractors surveyed the treatment

"We set up Quality and Health & Safety forums and work with the contractors as a group to continuously improve their work practices. We have top class contractors and we try to enhance their high standards even further."

plants and produced an assessment comparing the existing system to that required by the Irish Water Disinfection Specification. From this, a scope and cost was agreed for each site using a tendered schedule of rates.

The programme is in full swing, with all sites assessed, over 220 systems already installed and many other sites rationalised or found not to need an upgrade. There are over 200 treatment plants remaining, and this work will continue until the end of 2022. The companies working on this programme across the regions are EPS, Glan Agua, Coffey Water, Murphy Process and Veolia Water.

Work was awarded on a county by county basis with the counties most in need getting upgrades first. About €15m a year is spent on the programme Stephen says explaining the works. "The control philosophy has been standardised across the plants. There has been great innovation in installing the systems with the use of offsite construction methods. Glan Agua's work is a great example, they do the civil works and when the kiosk arrives, the works are completed within two days and ready to commission." The level of chlorine dosing is controlled by a computer and automatically adjusted based on key parameters such as chlorine residual, temperature, pH, etc.

SEWER REHABILITATION PROGRAMME

The Sewer Rehabilitation Programme focuses on sewers that need structural upgrading. Sewers are typically 80 to

100-year-old brick-built structures with defects, with some dating back to the Victorian era. Initial cleaning and surveys are carried out and the sewers prioritised to ensure that the investment is directed where it is most urgent.

The liners, which are imported in six to eight weeks after ordering, are manufactured to fit that exact form. The process avoids the need to open cut and replace the sewers which reduces the costs and, in particular, the disruption to the public.

Stephen explains. "A great example of this work is on Shop Street in Galway. There were problems there for 30 years and repairs would have required complete excavation of a busy city centre shopping street. Over the past year structural liners, imported from the Middle East, have been installed along the full length of the sewers with just minor disruption to business on the street."

These sewers are big enough to walk through. Stephen tells us about a sewer that was repaired on Dublin's Parnell Square. "On this project the sewer was only one metre below the Luas line," he states reminding us how people rarely think of the infrastructure below their feet. Smaller pipes have the flexible liner pushed in and it is cured in place using a heat lamp. The budget for this programme is €10m a year. A number of companies have been employed to carry out this work including GMC, McAllister Brothers and USSR Limited.

Given the age and state of the sewers, there are decades of work ahead. In the next two

Kerry Central Regional Water Treatment Plant

Nicholas O'Dwyer are delighted to have partnered with Irish Water for the delivery of this important project for the community of Kerry



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Kerry Central Water Treatment Plant

years, Irish Water will be retendering for their regional contracts Stephen says. “We ask for contractors to tender for three years of work to give them the opportunity to benefit from the economy of scale necessary for this type of work.”

ENERGY EFFICIENCY PROGRAMME

Irish Water is one of the largest users of energy in the country treating and pumping vast volumes of water and sewage. Irish Water aims to reduce the energy cost by €750,000 to €900,000 a year. Energy audits are carried out on sites with a large energy use and those that meet the investment appraisal criteria proceed. In addition, large scale pilot projects have been carried out on heating and lighting installations to establish the optimum cost reduction path. In addition, solar panels have been piloted on two sites.

The organisation is looking at all means of reducing the energy impact of their work. Stephen says, “Whenever a decision like this is made it is done after a rigorous cost-benefit analysis. The capital cost plus 10 years energy cost is used to identify the most economically advantageous tender.” There is a programme budget of €6m per year for the next five years. “There is a broad range of works here and the focus is on SMEs, rather than large contractors,” Stephen adds.

KERRY CENTRAL WATER SUPPLY PROJECT

Michael Tinsley tells us about some of Irish Water’s recent major projects, starting with a multi-award winning project. “Glan Aqua’s Kerry Central Water Supply Project is now in operation for over 18 months. This €30m supply project services mid-Kerry, a population of 60,000 but with a large seasonal tourist population of about 1 million people.”

There was a high risk of cryptosporidium and the water supply was on the EPA’s

“We want to learn from each project and carry this on to the next project, constantly delivering projects to the highest standards.”

remedial action list. Irish Water addressed this risk delivering a state-of-the-art award-winning water treatment plant that can treat up to 50 million litres of water a day he says. “This was delivered on time, on budget, and was a major success, winning many awards, including an Irish Construction Excellence Award.” This plant is in a spectacular scenic location with mountains in the background. An outstanding project, Michael says, “We want to learn from each project and carry this on to the next project, constantly delivering projects to the highest standards.”

SWORDS 30" REHABILITATION PROJECT

From Kerry, Michael turns to the €9m Swords Rehabilitation Project which brought with it a number of problems. “There is a large water main that goes through Swords known as the ‘thirty-inch’. Because of its location and

size it was difficult and Swords’ main street had to be closed for half the summer season. The project programme lasted a year and was delivered on time. An innovative construction method was used by inserting a plastic liner inside the existing concrete pipe. Inserting one or two kilometres of pipe inside an existing pipe was extremely challenging with traffic and stakeholder management being critical.”

Overall the management of the project by GMC and the innovative construction techniques they employed resulted in a six month saving on the programme.

BLANCHARDSTOWN 9C

Going up through the project scales, Michael mentions the €88m Blanchardstown project that is currently under construction. “The sewer is called the ‘9C’. It takes waste from Dublin 15 and the hinterland in Meath, travels into the Phoenix Park and connects into Ringsend. The sewer is at capacity. At times of heavy rainfall it surcharges and causes flooding, sometimes spilling into the Tolka River impacting on the environment. This needed to be upgraded. We are duplicating the existing sewer over a 3.2km length with a new 1.8m diameter sewer.”



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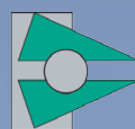
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A tunnel boring machine will be used for this project. It will reduce disruption on the Phoenix Park and will reduce the project duration. As well as the sewer installation Irish Water are putting in a 30,000m³ storm water management facility in the Park, 30m deep and Michael explains why. “When there are periods of heavy rainfall, the overflow can be put in storage and pumped back into the system once the flow decreases. This is the largest such facility in the country.”

Ward & Burke are the contractors here and are currently 10 months into a 39-month contract. The key challenge here is managing the impact on the Park, Michael explains. “Working with the contractor, we have taken precautions not to cause unnecessary disruption. This is a key project for the Dublin Region from sustainability and growth perspectives.”

“The network is designed so that gravity will bring the sewage into the plant and it will be pumped within the plant. The plant will be enclosed within an architecturally designed shell.”

ARKLOW WWTP

Arklow is the single biggest project in the Irish Water portfolio. It is the only major town in Ireland that has no wastewater treatment plant Michael tells us. “The sewage from the population equivalent of 36,000 people is discharged into the Avoca River without treatment and this is completely unacceptable. This limitation has stopped the town from developing and limited growth in the area. We started planning this project in 2014. Planning permission came from An Bord Pleanála last August and this project is currently out to tender with an expected start date on site coming in 2021.”

This project will involve the construction of interceptor sewers along the north and south quays and this will be done by both tunnelling and open excavation. The treatment plant itself is on the site of a derelict gypsum factory, which has to be demolished. A marine outfall will have to be built for the treated effluent and flood protection works undertaken as the plant will be near the seafront. The plant is in a central location within the town requiring the least pumping of sewage compared to other options Michael explains. “The network is designed so that gravity will bring the sewage into the plant and it will be pumped within the plant. The plant will be enclosed within an architecturally designed shell.”

Arup are the lead engineer on this project and Clancy Moore have been employed for architectural services. This will be a 3.5-year



Tunnel Boring Machine,
Blanchardstown Regional Drainage Scheme

project. “There are 36 other untreated agglomerations underway throughout the country but this project is on a completely different scale,” Michael states.

CASTLEMAINE – ECI

In Kerry, the Castlemaine wastewater treatment plant is a small project compared to those already discussed, serving a capacity of 750 people, but is very interesting as this is the first project of the Early Contractor Involvement (ECI) contract. This was tendered in 2018 and three contractors were selected for projects throughout Ireland. Glan Agua is doing the Castlemaine project.

With ECI the contractor gets involved in the project earlier than in traditional procurement Michael tells us. “The contractor comes in at planning and design providing constructability and value engineering expertise reducing the effort by the client in designing and redesigning work; also saving contractors from needlessly spending on preparing bids that may be unsuccessful as we see in traditional procurement.”

This is a rolling programme contract and the client is not locked into a fixed cost, and it is on a project by project basis. Castlemaine will be the first project that will be delivered under the four-year ECI contract. It is a small project in a small town but is significant due to the piloting of this collaborative procurement. ■



Purposed site for the Arklow Wastewater Treatment Plant

Radius Systems, manufacturer of PE pipe and fittings.

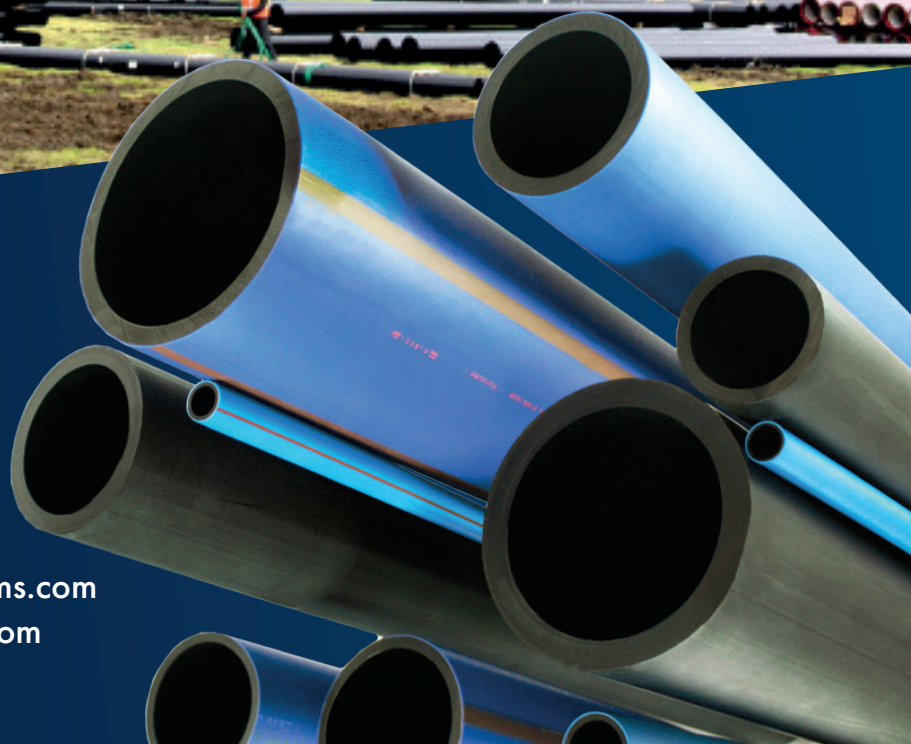


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Water Network Upgrades, Leak Detection and Repair & Sewers Rehabilitation Innovation

GMC Utilities has delivered a broad portfolio of work for Irish Water since its inception in 2013. High-profile projects such as the Domestic Water Metering roll out, Network Works and Services Contract, Indigo 1 & 2 (Facebook & Shires Pharma), Monaghan, Dundalk, Cork Countywide and Offaly Rehabilitation Projects and Swords 30" Water Mains Rehabilitation Project are some of the examples of water network upgrades recently completed.

COMPANY Director Shane McCloskey talks to Irish building magazine about projects and what is required to deliver value to Irish Water on water mains and sewer projects.

OFFERING

GMC Utilities is a multi-utility contractor currently operating in the water, gas, power and telecommunication industries. GMC has a large portfolio of water network projects with significant experience in design, build and management. Established in the late 1970s, with over 40 years' experience of delivering expertise and value to clients, the company's capabilities in the water sector include: water main installation championing trenchless technologies such as Horizontal Directional Drilling, pipe bursting, slip lining and swaging. Leak Detection, undertaken using non-intrusive techniques for surveying underground pipework, combining manual and electronic detection methods to identify problems. Pressure management and AMI bulk logging are also offered to Irish Water as a leak detection and reduction service. Sewer rehabilitation using GRP lining systems for large diameters and CIPP lining for non-man entry networks is also a key part of GMC's services to Irish Water.

PORTFOLIO

GMC Utilities has been a contractor of choice on many of Irish Water's programmes.

But delivering water network upgrades is the company's primary work and there have been some standout projects in the company's portfolio in recent years.

On the Network Management – Services and Works in the Greater Dublin and North East regions the company undertook District Meter Areas (DMA) establishment and validation works, including: surveying to establish baseline leakage levels in targeted DMAs; finding and fixing water leaks on the public and private side; water network pressure management; water mains rehabilitation by open cut and trenchless technology techniques; renewal of shared services, backyard services and lead services; First Fix programme; water network rationalisation; establishing and reporting on leakage savings associated with works undertaken.

In 2017 on the Monaghan Water Mains Rehabilitation contract the works involved the replacement and rehabilitation of 9.1km of old water mains in the centre of Monaghan Town (4.8km) and Clones (4.3km). The project included the replacement of 430 customer service connections and 134 common backyard services as well as the removal of lead pipework encountered on the public side of the water distribution network.

The Dundalk Water Mains Rehabilitation contract started in 2016 and involved the replacement and rehabilitation of 9.4km of old water mains in Dundalk Town centre. In addition, the renewal of customer service connections and common backyard services were part of this contract.

Large rehabilitation projects aside, GMC

Utilities worked on Domestic Water Metering from 2013 to 2017 on the installation of over 400,000 water meters and boundary boxes across the counties of Dublin, Wicklow, Kildare, Offaly, Laois, Mayo, Roscommon, Donegal, Sligo and Leitrim, Wexford, Waterford, Kilkenny and Tipperary. In addition, the company undertook 16,000 leak investigations and over 3,000 leak repairs for Irish Water's private side First Fix programme during this period.

SWORDS 30"

GMC Utilities won the €9m contract for the upgrade of 5km of ageing water mains in Swords in 2017. This water main rehabilitation project passed through the middle of Swords town centre. Regular collapses of the old 30" concrete main caused widespread disruption to the water supply to the town centre. They occurred more than 30 times over an eight-year period from 2011; a solution was required to prevent future collapses.

Shane describes GMC's proposed solution saying, "The works involved replacing the 5km of an old concrete water main 30" in diameter. The concrete water main was laid in 1970 so it was nearing the end of its design life. As the section ran from Forest Road, through Swords Main Street and out the Malahide Road conventional replacement by open cut was not a viable option. GMC and its designers WS Atkins proposed to insert (slip line) the 30" main with a 710mm OD MDPE water main. The use of trenchless



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Swords 30" Project - Water Mains Replacement

construction techniques accelerated the construction phase of the project while minimising the disruption to businesses and residents in Swords. GMC worked closely with Fingal County Council's Water, Roads and Traffic Departments, without whose invaluable support, the success of the project would not have been possible."

The new water main improves the reliability of the water supply for homes and businesses in Swords and residents in Malahide and Portmarnock served by the Malahide Reservoir. Impressively, this project delivered an average saving of 44 million litres of water every month and has removed any risk of further outages on this section of the network.

Shane says, "In completing this rehabilitation project, we were able to: save over 528 million litres of water per year; reduce the delivery programme by offering a sustainable solution; reduce the budget through a reduced programme and ongoing energy consumption costs."

"In completing this rehabilitation project, we were able to: save over 528 million litres of water per year; reduce the delivery programme by offering a sustainable solution; reduce the budget through a reduced programme and ongoing energy consumption costs."

Shane says this project is a blueprint for GMC Utilities. "We are proud to say that our project has ensured far greater sustainability for the water supply to the Swords urban area, providing greater scope to provide a consistent and safer water supply to the consumer, while reducing the amount of water abstracted at a critical source such as Leixlip. This is very relevant in the context of water supply in the greater Dublin region particularly where drought conditions in recent years necessitated extensive water saving measures and critical conservation requirements. This innovative

and 'sustainability conscious' approach to network rehabilitation now serves as a blueprint for similar assignments that can be made to help improve our environment in a more sustainable manner at a local, regional and national level."

SEWER REHABILITATION PROGRAMME

Aside, from working on the country's water mains, GMC Utilities has undertaken significant sewer rehabilitation work around Ireland. On sewer rehabilitation works, the contractor's scope of works includes an initial asset assessment survey prior to the design stage which is followed by sewer cleaning & desilting, CCTV surveys and site investigation works, then the GRP liner installation works and finally the pressure grouting stage. Innovative trenchless techniques are used for GRP liner installation, in order to reduce the potential impact to businesses and residents. Often these works will take place at night

time as larger sewer lines are usually located in dense urban environments.

Last year GMC undertook essential works to repair Victorian sewers on Clarendon Street, Sheriff Street and Benson Street in Dublin, Shop Street in Galway and O'Connell Street in Limerick as part of ongoing essential city centre wastewater infrastructure rehabilitation. Works in all cases included cleaning of the sewer to remove debris, relining of structural defects in the sewer and construction of manholes.

The majority of works were undertaken

during the evening and overnight. Access to properties and businesses were unaffected by the works as the contractor demobilised from the works area each morning before the start of business.

In 2019 Irish Water, working in partnership with Limerick City and County Council, invested €1 million to survey, assess and upgrade the sewers in Limerick city centre. The condition of the existing old culvert sewers on Limerick's O'Connell Street and the surrounding areas was assessed with extensive cleaning undertaken and CCTV surveys carried out in the sewers. New access shafts were dug to provide access to the culverts for future relining of the sewers to take place with minimal disruption.

Shane describes the work saying there was very little impact on locals. "After sewer cleaning, CCTV surveys and site investigation works relining works took place in Catherine Street, with a new GRP liner inserted into the existing masonry sewers, improving the sewer's structural stability, improving flow. Trenchless techniques were used for liner installation in order to reduce the potential impact to businesses and residents during the project."

GMC also delivered the Galway Sewer Rehabilitation Project, repairing and relining the existing sewers along Shop Street. The project was required to reduced odour issues and sewer flooding in the area. As part of the Galway project, works were required to replace a section of a collapsed sewer along Middle Street in Galway City which was causing the sewer to block up. ■



Sewer rehabilitation - before and after GRP lining

REPUTATION FOR WATER EXPERTISE

Ryan Hanley's Water Services team offers Irish Water technical expertise in planning and design. Managing Director Ger Gibney tells Irish building magazine about its reputation and expertise, and projects the team delivered.



Stillorgan WTP UV Installation

RYAN HANLEY'S long-established Water Services team operates across four regional offices offering water treatment, wastewater treatment, network design, project management and strategic design services. This expertise is complemented by Civil, Structural and Environmental Engineering Departments to provide an 'end-to-end' multidisciplinary service for clients.

DELIVERING

Before Irish Water was founded, Ryan Hanley worked for circa 30 local authorities delivering projects countrywide including the Tuam RWSS, Courtown MDS and the National Water Conservation Programme. Ger says, "The key to success in securing and delivering projects for Irish Water is our people and their commitment to excellence. Our particular expertise in water treatment, wastewater treatment and network management allows us to provide practical, sustainable and cost-effective solutions for our client. A highly effective CPD programme and low staff turnover helps to sustain our consistent 'end to end' service delivery reputation."

BELMULLET WWTP

Belmullet is one of 36 locations identified nationwide for the construction of new WWTPs and network infrastructure, where facilities currently don't exist. Prior to commissioning of the Belmullet project, wastewater from the agglomeration was discharged untreated to Broadhaven Bay in Belmullet. Ryan Hanley was commissioned to identify a suitable site for the WWTP and outfall and to progress the project through design, planning, environmental studies, and to tender the works; also managing the construction stage, as the Employer's Representative under a DBO contract.

Belmullet is the largest urban centre on the Erris peninsula, surrounded by two Special Areas of Conservation and designated Shellfish Waters. New works included construction, testing and commissioning of a new wastewater treatment plant (PE of 2,500), a marine outfall, new sewers on the collection network, two pumping stations and associated rising mains. Work started in 2016 and finished in March 2018 with an overall value of €8.5m.

SEWER REHABILITATION

As part of Irish Water's €60m Sewer Rehabilitation Programme to improve Ireland's network, Ryan Hanley completed schemes in Limerick and Galway. Years of limited maintenance and an ageing network required rehabilitating existing sewers and stone culverts through the installation of plastic liners and associated repairs where defects were identified.

This provided the long-term upgrade of the aged Victorian sewer networks. Ryan Hanley undertook the role of Employer's Representative and on-site supervisor for cleaning, surveying, construction and testing of sewer rehabilitation works and associated enabling works on masonry culverts.

STRATEGIC WATERMAIN

The Strategic Watermain Link Between Leixlip and Saggart Project is part of Irish Water's strategy to deliver a sustainable and resilient water supply nationally. With a construction value of approximately €25m, the infrastructure delivered will increase connectivity, providing a reliable supply to current and future water users in Greater Dublin by connecting Ireland's two largest treatment works, Ballymore Eustace and Leixlip, via 7km of 1.2m diameter trunk watermain.

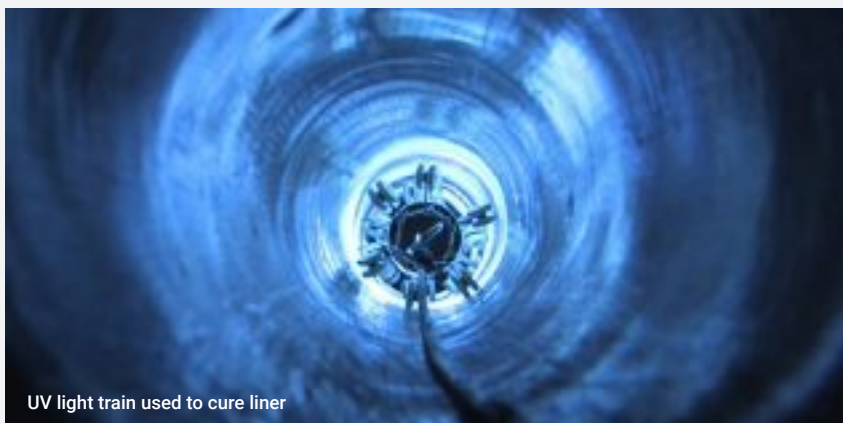
Ryan Hanley was commissioned to develop outline design solutions and on identification of the preferred solution undertook detailed design, tender documentation and managed the procurement and construction processes. Site works are almost complete for the installation of the ductile iron concrete lined pipe and a pumping station with high lift pumps capable of an immediate pumping rate of 40 megalitres per day (MLD), with capacity for modular expansion to 100MLD.

Challenges included the crossing of the N7 motorway at the Rathcoole interchange by using no-dig technology, ensuring no impact to N7 traffic, and pipelaying and reinstatement adjacent to the aircraft runway within an active military airbase without impacting military operations. All of this was achieved six months ahead of schedule and with no impact on water supply to over 1 million customers.

STILLORGAN RESERVOIR

Ryan Hanley designed a new UV disinfection plant capable of treating up to 90MLD of drinking water distributed from Dublin City Council's Stillorgan Reservoir including the reconfiguration and upgrading of the existing chlorination facility as secondary disinfection facility.

The reservoir had been on the EPA's Remedial Action List due to the absence of a cryptosporidium barrier. The successful project implementation, including construction of Ireland's largest UV disinfection plant, assured the safety of the water supplied to over 200,000 consumers in the Dublin region. Completed in 2016 with an overall value of €3.4m, Ryan Hanley undertook design, procurement and construction management for the works. ■



UV light train used to cure liner

Mallow and Mitchelstown Sewer Rehabilitation

Specialist contractor USSR Ltd undertook significant renovation work on Irish Water's Mallow and Mitchelstown Sewer Rehabilitation Project. Director Tom Coleman describes to Irish building magazine the work phases and technologies used.

THIS PROJECT initially consisted of the survey and potential rehabilitation of approximately 160 sewers in the Mallow and Mitchelstown areas in County Cork. The project scope was extended to enable other problematic sewers within both networks to be investigated. The works were required to be undertaken in two phases.

PHASE 1 - PRELIMINARY WORKS

There were 14,693m of sewers, ranging in size from 100mm to 525mm, surveyed to assess their condition. In addition, 128 manholes were surveyed and their position recorded and added to Irish Water's InfoNet database.

2,064m of these sewers had to be cleaned using water recycler cleaning units to enable the CCTV equipment to survey the pipelines. "These lines had silt and debris deposits preventing the camera travelling through the sewer," Tom explains. "The operator coded all observations as the survey was undertaken and the Wincan software used; automatically graded any defects noted. The CCTV footage was automatically uploaded to the web in real-time and enabled the client remote access, to inspect any sewer, once it had been completed." Upon completion of the survey USSR Ltd prepared and submitted a structural and service condition asset report.

Irish Water's InfoNet database holds all the information relating to their drainage assets. The updated information from the CCTV survey regarding the sewer condition and subsequent structural grading was uploaded to the database. This enabled a risk matrix to be constructed of the relevant pipelines where the risk of collapse

"The sewer and manhole rehabilitation contract will also improve the structural integrity of the existing drainage system, prolonging its service life."

(structural condition from CCTV report) and importance of the sewer (location within the network) were scored to prioritise the sewers to be renovated.

A design proposal for the sewers surveyed was submitted to the client, where the most cost-effective rehabilitation solution was proposed for each sewer length. USSR Ltd proposed the use of GRP materials and UV-cured installation techniques by non-dig methods in the form of localised repairs and the complete relining of sewers and manholes. Tom says, "The additional benefits of these structural repairs will be the reduction of the overall hydraulic load due to the elimination of infiltration and the sewer

and manhole rehabilitation contract will also improve the structural integrity of the existing drainage system, prolonging its service life."

Designs were calculated using the highest possible groundwater and full traffic loading. "This design was reviewed by Irish Water and agreed during a design workshop where it had to be justified on a cost and effectiveness basis," he adds.

PHASE 2 - REHABILITATION WORKS

A Traffic Management Plan for the renovation and subsequent over-pumping was submitted for approval. 11 manholes were identified as buried and were located, exposed and raised to existing ground level to facilitate the rehabilitation works. 835 obstructions and sewer intrusions were removed by robotic means. These encrustations, concrete deposits, intruding connections and broken pipe shards would have prevented the installation of repairs and decreased the pipe bore.

All pipelines were cleaned immediately prior to rehabilitation to ensure the pipeline was free of debris and grease. Tom explains the installation method saying, "4,190m of full-length liners were installed from manhole to manhole ranging in size from 100mm to 375mm. Sewers with widespread or frequent defects were relined in order to return the sewer to proper operating order with minimal change in original hydraulic capacity. The INPIPE CIPP lining system proposed by USSR Ltd used a non-shrink liner that fits tightly to the host pipe that was air inverted and cured with UV light. Samples were taken of the lining materials, independently tested and were shown to have exceeded the specification requirements."

Once the pipelines were relined, a robotic cutter reopened the service connections to allow flow back into the newly renovated sewer, Tom tells us. "A total of 333 laterals connections were reconnected in this manner. Top Hats were then applied to form a seal between the lateral and renovated sewer. In addition, 244 localised repairs were installed at isolated defects in the sewer-lines. 21 structurally compromised manholes were also relined using high-density silicate reinforced mortar."

A total of 10,233m of sewer was rehabilitated. On completion, a CCTV survey showing the renovated condition was updated to Irish Water's InfoNet database. ■



WaMax 200 used to remove concrete from pipelines

Nominated in 10 categories for the ICE Awards 2020

1



ICC Wales
International

2



Station Building II
Fit Out or Refurbishment Over €5m

3



Osberstown Underbridge
Civil Engineering

4



Center Parcs
Leisure or Tourism

5



Capital Dock
Residential

6



BioCork 2
Industrial Over €10m

7

Health, Safety & Wellbeing
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8

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Fresh from covering the Six Nations, Tommy Bowe will be the MC. Tommy is one of the UK and Ireland's most recognisable rugby players both on and off the pitch. The two-time British and Irish Lions wing is the PRO14 rugby's current record try-scorer. With an impressive 148 appearances for Ulster, 77 for the Ospreys, 69 International caps and 5 Lions test caps to his name. Tommy has a degree in Construction Engineering and a post graduate diploma in Business Management from the University of London.

FINALISTS

After weeks of deliberation for the assessment stage, the ICE Awards Judges selected the Irish Construction Excellence Awards 2020 Finalists. On 11 & 12 February the Finalists' teams were interviewed for the second stage at The Convention Centre Dublin. These projects, people, products, innovations, and courses represent the best and showcase the talents within the industry to national and international clients, the greater construction community and the public.

ICE Awards Director Colin Walsh says, "The ICE Awards are an excellent opportunity for the busy construction industry to take stock and look back at recent achievements. The Finalists show just how exceptionally high the standard was this year across all construction disciplines."

There is a great diversity of categories. Commercial and Industrial cover projects for some of the world's major clients, while Residential includes projects that contribute to solving our national housing crisis. Fit Out and Refurbishment shows the great skills of Ireland's tradespeople and the management capabilities needed to deliver difficult projects. The BIM projects show the technological capability of our contractors and subcontractors in delivering complex projects. The Construction Project Manager category presents the people who make major projects happen and deliver value to demanding clients.

Industry and members of the public had the opportunity to vote for the 'Project of the Year' on the ICE Awards website and vote they did. Over 14,500 votes were cast, up on the 2019 figure of just over 12,000. The Winner will be revealed at the Gala.

NETWORKING

The ICE Awards Gala provides an unrivalled networking opportunity. Ireland's construction leaders, design and supply chain partners, and clients gather to celebrate the pursuit and achievement of excellence in construction. Academia will be well represented with many of the leading AEC course providers attending as Finalists. If you are involved in construction, The Convention Centre Dublin is the place to be on 28 March.

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Aside from meeting new people from the industry, the Gala is a great occasion for teams to have some downtime in a great venue with the finest of food and wine. Companies enjoy the Gala, the entertainment, food, and witnessing the best showcase their industry has to offer.

“The Gala night was very impressive and was very enjoyable. The attendees we invited were very impressed with the night and the entertainment. Some Black Tie events can be stuffy and formal, but the tone was very well balanced in terms of the social occasion and celebration and the importance and gravity of the Awards.” — **Sisk**

“The Irish Construction Excellence Awards are an industry recognised benchmark for excellence in construction project delivery. The Judging Process is comprehensive, transparent, considered and well conducted. The Gala night is filled with an air of anticipation and excitement. It is a great opportunity for networking with industry colleagues and for team building and bonding.” — **BAM**

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The ICE Awards acknowledges the support of its sponsors, many who have supported the competition for years. Gold Sponsors: Arthur Cox Solicitors, Sika Ireland, Etag, Davy Private Clients, AA Euro Executive Recruitment. Silver Sponsors: Surety Bonds, Brooks, Topcon, Diatec, PlanGrid, CPAS.

The Gold Sponsors are well-known names in the industry, delivering different quality products and services. Speaking of last year's Gala the Sponsors say they were very pleased with being associated with the ICE Awards and what was delivered to the industry. They had very positive comments on the night itself.

“The presentation of the awards was a great evening that celebrated the work that the Irish construction industry is delivering – great to see the level of collaboration between architects, contractors and suppliers. The Gala night is now a mega event in the Irish construction calendar and it allows our industry to showcase the high standard of excellence which is now inherent in Irish buildings.” — **Sika Ireland**.

“Supporting the ICE Awards gives us a great opportunity to recognise the outstanding achievements from the best-in-class in the sector.” The feedback from Davy clients is encouraging. “The feedback has been very positive and we have had requests for a table for next year!” — **Davy Private Clients**.

“It is a high-profile competition and event that showcases the best of Irish construction. I have great memories of attending the ICE Awards Gala night in previous years. Sponsoring the ICE Awards confirms our dedication to high standards in construction.” — **Etag**.

“As an advisor to the construction industry, it is a great honour just to be part of the audience at this event, participating in the really positive atmosphere and the celebration of all those working in construction.” The company's clients were impressed also. “Feedback from our clients has been very positive and everyone had a great night!” — **Arthur Cox**.

“Fantastic event that was run seamlessly. A great credit to the organisers!” — **AA Euro Executive Recruitment**.

CELEBRATION

The ICE Awards recognise and reward companies striving to move construction forward. These awards are the industry's most rigorous and therefore most prestigious accolade. Construction is an international market and these awards will shine a light on the capabilities of Irish construction and market the industry to national and international clients.

The two-stage Judging Process makes the Awards distinctive in rigour and prestige. The ICE Awards Judging Panel is selected from a range of experts and includes Jerry Grant, former Head of Irish Water; Ciarán O'Connor, State Architect and Principal Architect in the Office



PJ Rudden and Mary Flynn

of Public Works; Emma Hayes, Managing Director of Digital Built Consultants; Niall Kane, Head of Smart Places at VINCI Facilities; Mary Flynn, Senior Quantity Surveyor at Dublin City Council; PJ Rudden, former President of Engineers Ireland and former Director at RPS and now a project consultant; Kim Hegarty and Clement Kavanagh, Associate Directors at Linesight.

“Ireland's construction leaders, design teams, supply chain partners, and clients gather to celebrate the pursuit and achievement of excellence in construction.”

ATTEND

ICE Awards Director Colin Walsh says that due to industry demand the 2020 ICE Awards Gala event is moving to the larger venue. “We have had growing demand to attend the Gala year on year and to facilitate this demand we are moving to The Convention Centre Dublin for 2020. It is a larger venue but it has nearly sold out; with only limited tickets now available.”

The 2019 Gala tickets Sold Out within weeks; as Colin says, limited tickets are available for the 2020 Gala on 28 March. Book your tickets now by registering on the awards site www.iceawards.ie or Email: contact@iceawards.ie

With the full media support of Irish building magazine, Irishbuildingmagazine.ie, and BIMireland.ie these prestigious awards set the AEC event benchmark. Follow the ICE Awards on LinkedIn, Twitter, and Instagram. #ICEAwards ■

The 2020 interviews were conducted in
The Liffey Suite at
The Convention Centre Dublin





**Irish Construction
Excellence Awards 2020**
Finalist



UCD Lochlann Quinn Extension

• The Irish Stock Exchange – Commercial under €10M • Historic Leinster House – Public / Heritage Building
• Peamount Healthcare 100 Bed Nursing Facility – Health Building • UCD Lochlann Quinn – Education Building

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Commercial Over €10m

IN PROUD ASSOCIATION WITH SIKA IRELAND



Project: New Mill Student Accommodation

Contractor: BAM Ireland

Client: Global Student Accommodation

Lead Architect: Shay Cleary Architects

Contract Value: €25.5 million

Blackpitts Student Accommodation is in the Liberties area of Dublin 8. 296 student rooms and associated communal facilities form a U-shaped perimeter arrangement enclosing a west facing quadrangle courtyard lawn. Practical completion was achieved in 18 months with final cost at €25.5 million.

A BIM Level 2 project using Autodesk BIM 360 and Field tools to streamline communication of data and drawings. The inner-city site had public, residential and organisational impact that was successfully managed by the project manager acting as community liaison, regular meetings, discussions with community representatives, organisational representatives taking on board their views achieved a constructive and inclusive approach.

The building was recognised with an innovation in construction award in 2018 for construction and maintenance for the work and procedures for the reduction and elimination of silica dust. The project transformed a brown field site to a green field footprint by creating large expanses of green using all sedum roofs, 85% green area ground landscaping, as well as ground water and rain water harvesting tank that can be used for maintenance of the green areas.

The overall design for the building placed great emphasis on the creation of good public spaces and orientation for natural light throughout the day. With effective design and construction, the building's outcome went beyond the client's brief. ■



Project: One South County

Contractor: Collen Construction

Client: Cyril McGuire Infinity Capital

Lead Architect: TOTP Architects

Contract Value: €30 million

One South County is a Grade A LEED Gold and Wired Platinum office development completed over 23 months and is the first building of a planned office block campus, when complete will consist of three similar blocks located in Leopardstown, South County Business Park, Co. Dublin.

Located in a sylvan setting, the design of the reflective glass facades maximises the existing mature park landscape, minimising the impact of the structure on the natural landscape.

The building consists of 5 floors of reinforced concrete structure over basement. The design boasts two parallel wings connected by bridges over four levels though the centrally glazed atrium. The building perimeter is glazed with the stair cores clad in limestone both internally and on external perimeter. The expansive atrium is enclosed by a sloped glazing roof and spider glazing on north and south elevations. The building has a sedum green roofing system with the plant room enclosed within louvred plant screens.

One South County is a landmark building set as the gateway to the business campus and delivers on the requirements of the buoyant commercial office development needs for both international and homegrown clients. ■

Project: Gardens International Limerick

Contractor: JJ Rhatigan & Company

Client: Limerick Twenty Thirty DAC

Lead Architects: Carr Cotter & Naessens / Denis Byrne Architects

Contract Value: €22 million



JJ Rhatigan, one of Ireland's leading construction companies, is proud to have successfully delivered Gardens International for our client, Limerick Twenty Thirty.

Located in the heart of Limerick City, the project mixes the stunning architecture of the early 19th Century Roches Hanging Gardens with a gleaming new building to the rear, to form a brilliant architectural blend that sets a new standard for the city and region.

Taking inspiration from Roche's vision – and honouring Limerick's international entrepreneurial heritage – Gardens International will ensure that a site, that once astonished local and international visitors, will once again be associated with innovation, ambition and imagination.

Gardens International is a LEED Gold building, providing high performance Grade A office space. Its unique character is enriched by its combination of dynamic contemporary architecture and the old heritage buildings. It reimagines one of Limerick's most historic and innovative buildings for the 21st Century.

Limerick Twenty Thirty is a special purpose vehicle, created by Limerick City and County Council to transform disused, strategic sites in the city and county into economic engine rooms of growth. We feel as though JJ Rhatigan played an important role in aiding this initiative, by constructing an exceptionally high specification workspace. ■



Project: 1-6 Sir John Rogerson's Quay (1SJQR)

Contractor: John Paul Construction

Client: Hibernia REIT

Lead Architect: Henry J Lyons Architects

Contract Value: €47 million

1-6 Sir John Rogerson's Quay (1SJQR) is a mixed-use development comprised of 2 retail units and 10,487m² of office space spread over six floors. The building overlooks the River Liffey with a subterranean carpark, lockers and shower facilities. No.2 and 4 & 5 Sir John Rogerson's Quay are areas of conservation within the project. No.2 is the remnants of an old tram depot which retains a redbrick façade, creating a dramatic entrance to the property from the main street. This leads into a landscaped courtyard before entering the six-storey atrium of the new construction. No. 4 & 5 were previously Georgian houses that have now been renovated into office spaces on the upper floors connecting into the new main building. The ground floor of no. 4 & 5 has been earmarked for a café/bar, opening into a three-storey glazed atrium courtyard to the rear of the building. This atrium separates no. 4 & 5 from the office units of the new building.

Sir John Rogerson's Quay is the third phase in an overall redevelopment of the area by the client. Works also included a reinstatement of cobbled streets, additional granite kerbs and footpaths, and new landscaping to the streetscape. 1SJQR, with its neighbouring buildings, the Observatory, 1 Windmill Lane (1WML) and 2 Windmill Lane (2WML), have re-branded Dublin's Windmill Quarter. ■

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Director, Davy Private Clients

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Commercial Under €10m



Project: Advanced Office Building,
National Technology Park, Limerick
Contractor: Townmore
Client: IDA Ireland
Lead Architects: Van Dijk International
Contract Value: €9.65 million

Townmore is one of Ireland's largest main contractors with close to 100 talented professional and delivery staff and a portfolio of over 100 projects completed. We take particular pride in completing stand out buildings for our clients.

The new office building is located on a prime site at the entrance of the National Technology Park in Plassey and as such it was critical that it be completed to the highest standards. The project team, in conjunction with the design team and the client, worked tirelessly to deliver the outstanding building it is today. We believe that the architectural design coupled with the high-quality finish delivers a building that the IDA can be proud of.

Added to this is the fact that the building was delivered on time and within budget which has ensured that all parties can be extremely happy with the outcome. ■



Project: Wilson Lynch Building
Contractor: Monami Construction Ltd
Client: Galway Racecourse
Lead Architect: Coady Architects
Contract Value: €4.5 million

The Wilson Lynch Building is a bespoke structure constructed to enhance the already impressive hospitality facilities at Galway Racecourse and the iconic Galway Races. It is a complex structure with a variety of different façade and structure types which all blend together seamlessly to create a beautiful building with its own special atmosphere

and character. The collaboration and coordination required to successfully combine and construct these elements was challenging, but the completed building is a testament to all those involved. The building is now an integral part of the festival experience for racegoers and has set a new standard in corporate hospitality at the famous Balybrit venue.

At Monami Construction we pride ourselves on working proactively with clients to ensure our buildings meet and exceed our client's expectations. We believe we have achieved this goal on this bespoke project and are extremely proud to be associated with the Wilson Lynch Building at the Galway Racecourse. ■



Project: Hatch Student Living, Copley St
Contractor: John Paul Construction
Client: Hatch Student Ventures
Lead Architect: Reddy Architecture + Urbanism
Contract Value: €8.5 million

Early identification of a project where JPC could bring their expertise and enthusiasm to enhance the final outcome of a project resulted in thorough examination of the tender for Copley Street. Calling on a tried and trusted supply chain to partner our bid meant that we were going to have a competitive submission. Thankfully we were called for a post tender interview, and after the team (which included Site Managers from the award-winning Adare Manor) were introduced, abilities and past projects demonstrated, both client and design team had an easy decision in appointment.

The project was an exemplary example of collaboration from the outset where all bought into the mantra of "project first". With the involvement of everybody a design development approach concluded with BIM images and virtual walk-through of an apartment. The constant attention to detail, regular quality and safety walks, and utilising the Last Planner approach meant that works were meticulously planned and executed accordingly.

In an environment where opinions were welcomed, valued, and considered, design solutions were cognisant of sustainability, energy efficiency, maintenance, quality, buildability, safety and overall fit for purpose. Thereafter it was merely ensuring that workmanship was to the normal high standards of JPC. ■



Project: The Irish Stock Exchange
Contractor: Duggan Brothers
(Contractors) Ltd
Client: The Irish Stock Exchange
(Euronext Dublin)
Lead Architect: Henry J Lyons
Contract Value: €9.5 million

The classical grandeur of the Armoury building on the historic streetscape of Foster Place has been brought back to life as a significant renovation and extension to the Irish Stock Exchange (Euronext) offices in the city centre, which has been home to the Exchange for over 200 years.

The project aimed to reveal the character of the historic buildings by carrying out a sensitive restoration. A light filled atrium mediates between the Armoury and the new open plan office extension, revealing a highly articulated cut limestone wall, with impressive arched openings which had been infilled during previous extension works. The new building is a finely detailed and crafted contemporary building comprising, fair-faced and board-marked concrete structures, natural timber linings, welded aluminium balustrades and welded and polished brass details, with all elements responding to tight tolerances in their execution.

A complex series of routes for services in the existing buildings provide state-of-the-art facilities including new heating, cooling, power and data to provide modern office facilities to the Exchange.

The three buildings create a charming mix of heritage and modern office space to provide a state-of-the-art working environment for all of the Exchange staff under one roof. ■

Industrial Over €10m

IN PROUD ASSOCIATION WITH CPAS



Project: Dunboyne Biologics

Contractor: Jacobs

Client: Takeda

Lead Architect: Jacobs

Contract Value: €400 million approx.

The Takeda Dunboyne Biologics project was a major pharmaceutical project undertaken at the N3 in Meath, with the site peaking at over 1,400 people. The project delivered an exemplary safety record with over 2,750,000 site hours worked to an extremely fast-track programme across numerous work areas with Mechanical Completion being achieved for the facility within 21 months of start of Detailed Design, which coincided with the start of construction.

Jacobs delivered the project well below the project's budget employing state-of-the-art project/construction management techniques and tools throughout the project life-cycle. The facility now serves as a much sought-after Employer in the area and provides a comfortable, aesthetic work environment for employees.

However, most importantly the facility is now in the final phases of qualification to deliver powerful life-saving, pharmaceutical drugs to patients in Ireland and globally. For the many people who collaborated in delivering this project, this will without doubt be regarded with pride as one of their key career achievements. The project demonstrated an exemplary, positive collaboration between all project stakeholders including Takeda, Jacobs and our numerous subcontractors and equipment vendors. ■



Project: Lidl Regional Distribution Centre

Contractor: John Paul Construction

Client: Lidl Ireland GmbH

Newbridge 2 has raised the bar for logistics facilities across Europe, in terms of its energy efficiency, its reliance on renewable and recycled energy sources and its mission to break the mould for the quality of staff facilities in a logistics facility.

While delivering exceptional quality was the major focus at tender stage, project execution and planning came into focus during tender negotiations as a 16-month combined build between enabling and main build was curtailed to 13 months.

The successful delivery of this facility is rooted in the exceptional leadership demonstrated by John Paul Construction from contract negotiations and supply chain procurement, to the problem solving, can-do attitude of the team who set the culture for the wider stakeholders to collaboratively make it happen.

This leadership exhibited by JPC management relied on a team wide command of detail and standards, technical excellence at every level, personal commitment and an ability to get the right work done safely, when it needed to get done.

Delivering on our value engineering commitments, underpinned the commercial viability of the project and validated the technical ability of the "contracting" team to drive design innovation and optimisation.

Embracing technology and collaborative planning tools formed a significant part of this narrative, but it was the non-adversarial pursuit of excellence on all metrics; safety, considerate constructor, quality, commercial, environmental, and ultimately the endorsement of a delighted client that makes this project a worthy entry for a Construction Excellence Award. ■



Project: Wasdell Group – European Union Hub

Contractor: Kilcawley Construction

Client: Wasdell Group

Contract Value: €17 million

The client was faced with having to react quickly to the decision of the UK to leave the European Union to guarantee continuity of service to its EU clients. They made the decision to build their own production and the administration Hub in the EU. This was a new and risky venture for the client to be undertaken in uncertain times.

A green field site in an IDA Park close to Dundalk in Ireland was selected as the location for the 8,230m² production and administration Hub.

Kilcawley Construction after a competitive two-stage tender process were selected as PSCS and Works Contractor.

An ambitious 50-week programme was agreed at tender stage but through an agreed acceleration the production areas were handed over to the client in 36 weeks with overall completion achieved in 44 weeks. This accelerated programme allowed the client to not only gain a production facility ahead of schedule but to take advantage of a specific new significant contract with a new Blue-Chip client.

The Wasdell Group are delighted with the quality and speed of delivery by Kilcawley Construction with the Wasdell Management team proudly making the following statement "With building work commencing in September 2018 the facility is thought to be the fastest custom-built site to achieve cGMP approval". This is a testament to the work of Kilcawley Construction and the entire project team on this project. ■

IN PROUD
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WITH CPAS

Industrial Over €10m

IN PROUD ASSOCIATION WITH CPAS



Project: Combilift
Contractor: Meegan Builders (Castleblayney) Ltd
Client: Combilift
Lead Consultant: McMahon Associates
Contract Value: €45 million

Meegan Builders were main contractor for the €45 million Combilift development in Monaghan, which involved the construction of a 10 acre building on a 25 acre site, making it one of the largest manufacturing facilities under one roof in Ireland. Combilift is the largest global manufacturer of multi-directional forklifts and more than 50,000 units have been sold in over 85 countries since Combilift was established in 1998 by Martin McVicar and Robert Moffett.

Included in the development were a 4,650m2 Administration Building, internal road network, HGV marshalling yard, and over 500 car parking spaces. This new facility once completed would employ in excess of 650 people in Monaghan and 100 more overseas, and make it one of the largest employers in the border region.

Innovation is at the core of everything Combilift do, especially in the development of new solutions for their customers. Meegan Builders are proud that the building incorporates innovative materials, methods and designs. Of paramount importance was sustainability of the development and numerous steps were taken to improve energy efficiency, increase the use of renewables and reduce emissions.

The project programme was ambitious with substantial completion for the factory delivered 20 months after commencement and the office development delivered 12 months thereafter. Meegan Builders successfully delivered the project on budget and within programme. ■



Project: BioCork 2, Delivering Suite 3 to JSI
Contractor: John Sisk & Son
Client: Janssen Sciences Ireland
Lead Architect: PM Group
Contract Value: €300 million

In the context of Biopharma Life Science projects, this truly was an iconic development and one which Sisk is extremely proud to have been involved with. In terms of scale, complexity and the challenge of working and interfacing with a live manufacturing campus, it elevated our team to new levels. The success of this project was down to the alignment of Sisk and the construction teams with Johnson & Johnson's core values and objectives. We understood that the patient lies at the heart of everything Janssen does and we, in turn, created a safe and open culture that brought out the best in every person that worked on the project.

This alignment meant that we delivered a site unrivalled in terms of safety performance. Over 5,000 people came through the gates and everyone returned home safely to their families each evening. Despite multiple interfaces, we never once disrupted daily operations at the existing facility which is a key manufacturing site in the Janssen network. Sisk employed the most innovative approach to accomplishing the quality demanded for this type of facility while all the time realising the significance of the schedule and the urgency to deliver vital medicines to patients all over the world. ■

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Industrial Under €10m



Project: Aurivo Spray Dryer
Contractor: Kenaidan Contractors Ltd
Client: Aurivo Dairy Ingredients
Lead Architect: Waldron & Associates
Contract Value: €9.8 million

Construction of the 12-storey spray dryer facility for Aurivo Dairy Ingredients commenced in August 2018 and was successfully handed over in May 2019. The €9.8m precast concrete structure consisted of in-situ concrete structural floor and roof screeds. In addition to the building works, Kenaidan Contractors Ltd also managed, facilitated and co-ordinated the installation & commissioning of a further €16m of bespoke process equipment.

Works on site continued 7 days per week, with Mondays to Fridays also including a night shift to ensure that all key client milestones and deliveries were met. The concrete roof screed of this effectively 12-storey high structure was poured in December 2018, only 20 weeks after works had commenced. A new, bespoke LNG gas farm was constructed within the client's property to supply a clean, sustainable and efficient energy supply to this new facility. This gas farm is the first of its type to be installed in Ireland. Despite the project being officially handed over to a delighted client in May 2019, the plant had actually been capable of producing its quota of milk powder from mid-April 2019, following an inspection from the appropriate food standard authorities. ■



Project: IKON – Kingspan
Innovation Centre
Contractor: CGDM Construction
Ireland Ltd
Client: Kingspan PLC
Lead Architect: Niall Smith Architects
Contract Value: €6 million

CGDM was appointed as main contractors for Kingspan's new Global Innovation Centre, IKON. Covering 20,976 sq. ft. this was an extension to their existing headquarters, located in Kingscourt Co. Cavan. This new state of the art building is the test and development centre for the next generation of Kingspan products, solutions and services. This central hub will be linked into Kingspan's various manufacturing units worldwide. IKON represents what drives Kingspan and its teams to embrace the future through continuous innovation and it was an honour for CGDM to be part of the project team that has delivered this truly innovative and spectacular building.

With the design team, CGDM fulfilled the brief working collaboratively on every single aspect of IKON to ensure the project would reflect the vision of the client. It was delivered with construction excellence and passion for the unique innovation techniques used. We took a drawing design and implemented it through innovation – adapting the products to enhance and deliver the construction and fit-out to exceptional standards. It has been an unbelievable opportunity to work with a global leader in the construction industry, who deliver iconic buildings. We have developed a strong relationship with Kingspan for future work. ■



Project: IDA Advanced Technology
Building Waterford
Contractor: Clancy Construction
Client: IDA
Lead Architects: Van Dijk International
Contract Value: €5.25 million

The testimonials received from the client and design team speaks volumes for how Clancy and its site management team managed and completed the Advanced Technology Building (ATB) for IDA Ireland in Waterford. The team exceeded expectations for both client and design team in their collaborative approach to managing the project.

Part of our mission is to continuously improve and adapt to the newest industry standards and technologies available to the construction industry. This is driven by the young and energetic team within the company and guided by the excellent resources provided by Lean Construction Ireland.

The success of this project proves that Clancy is amongst the leaders in Irish construction for innovation and lean thinking. Areas such as BIM Modelling, Last Planner System coupled with our internal quality management system and safety system proves that Clancy can deliver top quality projects on budget and on time. ■



Project: Oceanpath, West Pier, Howth,
Co. Dublin
Contractor: Broomfield Construction Ltd
Client: Oceanpath
Lead Architect: Gilligan Architects
Contract Value: €1.79 million

For the past 46 years Broomfield Construction have managed and delivered excellent projects for our clients. On Oceanpath, Howth we feel that this gave us an excellent opportunity to showcase our level of skill, efficiency and level of detail. This project had an excellent design team where all parties were interested in delivering an excellent project and to showcase something we could all be proud of and to stamp our name on.

We were given very exact and difficult dates to meet, combined with substantial late fees and nominated subcontractors to manage but all went smoothly due to the combined effort of all. We were given a first handover date to the client to be able to operate the new cold and chill stores earlier than expected, a 2nd date to take all of phase 1 and move their whole operation from the existing building to the new building overnight and start production straight away. We then moved into the old building and completed this on time when they expected to move to 200% production. We were also asked back 2 months after handover to complete phase 3 of the build which was retrofitting a large and very expensive automated fish filleting line in behind the main processing area. All dates were promised, met and all handovers were smooth. A food audit was completed the week after the final handover on phase 2 which they passed and we feel this is the true snag list test and showcased the quality that was achieved.

We maintain excellent relationships with all members of the design team, client and the nominated subcontractors and this job has led to many new opportunities with the client and design teams as a result. ■

Killeen Civil Engineering



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Civil Engineering

IN PROUD ASSOCIATION WITH DIATEC



**Project: The M11 Gorey to Enniscorthy
PPP Scheme**

Contractor: BAM Ireland and Dragados
Client: Transport Infrastructure Ireland
Lead Engineer: Barry Transportation
Contract Value: €217 million

Funded, constructed and operated by the BAM ACS Consortium, with Sponsors/Investors: BAM PPP PGGM Infrastructure Cooperatie U.A. (50%), Iridium Concessionaires de Infraestructuras S.A. (50%), the M11 Gorey to Enniscorthy scheme has reduced travel times from Dublin to Wexford by up to 30 minutes.

The motorway and adjoining roads were opened ahead of schedule and within budget. The team together with our designers, Arup and RPS, and our expanded domestic and international supply chain contributed not just to the quality of the construction and the early completion, but also on the adherence to the highest safety standards over the last three years of construction, with no serious accidents, all consistent with the high safety record of BAM and Dragados.

The adjoining people of Wexford also contributed to making the scheme memorable and successful and assisted in our endeavours to make this logistically challenging project a great success.

The scheme has been successful in allowing the Joint Venture to re-invigorate core skills in managing and delivering large linear construction schemes as well as assist in building up capabilities, skill levels and resilience in their own resources and in those of their supply chains.

The scheme has demonstrated the success of the PPP model in Ireland in delivering much needed infrastructural improvements in more strained economic times. ■



Project: Lidl Regional Distribution Centre

Contractor: John Paul Construction
Client: Lidl Ireland GmbH
Design Lead: SDS Engineering / MCA
Architecture
Contract Value: €73 million

Lidl have developed a new €100 million regional distribution centre outside Newbridge, Co. Kildare which consists of a 58,000m² warehouse, external HGV concrete yards of circa 80,000m², and associated services on a 32-acre site.

The project required a significant civil engineering portion with respect to earthworks design and construction. The upper 3-4m of ground on the site contained stratified layers of soft alluvial clay, loose gravel and peat, which were unsuitable for supporting the building and external yard, road and carparking areas. John Paul Construction in conjunction with their designers and specialist sub-contractor prepared a ground improvement design which involved excavating, mixing and blending the alluvial clay and gravel and processing them into structural fill by lime and cement stabilisation. Soil stabilisation was also used to produce capping for the external pavements. The contract is the largest stabilisation project of its kind in Ireland and it sets a new benchmark for fill materials that can be stabilised into high specification structural fill and capping. Crucial to the success of the contract was the staged earthworks strategy devised by JPC, which allowed the building to be constructed in parallel with the ground improvement on a fast track programme.

Innovative design and construction methodology as set out above, including achieving excellence on all metrics – safety, considerate constructor, quality, commercial, environmental, and ultimately the endorsement of a very satisfied client – makes this project a worthy entry for the Irish Construction Excellence – Civil Engineering Award. ■



Project: Mary Elmes Bridge, Cork City

Contractor: Keating
Client: Cork City Council
Lead Engineer: Arup
Contract Value: €3.8 million

On 17 May 2019 the 165-tonne Mary Elmes Bridge was brought by barge from Cobh and lowered into place across the north channel of the Lee between Merchant's Quay and St Patrick's Quay to become the 31st bridge in the city.

It is expected the bridge will carry up to 11,000 pedestrians and cyclists daily between the Victorian Quarter and the city centre. Cork City Council have estimated that the bridge will be used by 3.9 million people a year.

Mary Elmes, who was born in Ballintemple on Cork's southside in 1908 and died in France in 2002, worked as a nurse during the Spanish Civil War. She later fled to France where she was credited with saving the lives of 200 Jewish children during the Holocaust. In 2015, she became the first and only Irish person honoured as Righteous Among the Nations by the State of Israel in recognition of her work.

This project from its inception, through design, planning, fabrication, construction and finally installation is an example of how close collaboration between the local authority, its designer and contractor can produce something that truly represents construction excellence. ■

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Project: Motorway Service Area, Exit 2A M9, Kilcullen, Co. Kildare
Contractor: Killeen Civil Engineering (KCE)
Client: Circle K
Lead Engineer: Atkins
Contract Value: €7.56 million

As a company, the M9 MSA has been a major project for Killeen Civil Engineering which involved a lot of new challenges especially the level of certification and documentation which, though initially was very challenging, has ended producing a quality building which has exceeded our client's expectations.

KCE have built a great relationship with McArdle Doyle Architects and Circle K over the last 4 years working on Petrol Service Stations and MSAs. This relation has been maintained because KCE deliver a quality product on time and within budget. This is due to the KCE team from management down to site staff who produce a quality product that meets all the project & client requirements. ■



Project: Haulbowline Island East Tip Remediation Project
Contractor: P.J. Hegarty & Sons U.C.
Client: Cork County Council
Architect: RPS
Design Engineers: P.J. Hegarty & Sons U.C. via Sirius Group
Contract Value: €10 million

The remediation of the East Tip on Haulbowline Island has seen 650,000m³ of steelworks waste, a negative legacy of the Island's industrial past, transformed into a magnificent public recreational amenity for the benefit of local residents, the local workforce and visitors alike. With Haulbowline's history as the location of the only steelworks ever to operate in Ireland this was a unique journey fraught with many challenges. It required the application of innovative and bespoke engineering solutions from project initiation through to completion.

P.J. Hegarty & Sons U.C. delivered the product on time and under budget and the project provides a template for the successful delivery of public sector projects. Considering the extensive contractual risks presented by the uniqueness of the site, nature and characteristics of the waste material and location within Cork Harbour, this is a significant achievement.

The project is a true testament to the ingenuity, skill, experience and perseverance of P.J. Hegarty & Sons U.C.. The project is also a testament to the power of civil and environmental engineering to lift the human spirit. Cork Harbour has been transformed by the remediation of the East Tip and it is a landmark project for excellence in Irish engineering and its positive impact on society. ■



Project: UBC 43A Osberstown Underbridge
Contractor: John Sisk & Son
Client: Iarnród Éireann and Kildare County Council
Lead Engineer: Iarnród Éireann
Contract Value: Confidential

The Osberstown Underbridge Project was completed for Iarnród Éireann and Kildare County Council as part of the new Sallins Bypass. It consists of a twin box underbridge to take the new dual carriageway under the Dublin to Cork twin track railway line. The project commenced in August 2017 with the bridge being installed during a 78 hour Easter Weekend track possession in March 2018.

A 53m by 33m rotary pile cofferdam was constructed over the footprint of the bridge across the railway. The bridge structure consisted of 16 reinforced concrete units cast on site. Each unit had a footprint of 12.5m by 5m ranging in weight from 140 to 220 tonnes.

The key activities during the possession were the cofferdam excavation, installation of the reinforced concrete bridge units and the backfilling operations. The excavation of 11,000m³ from inside the cofferdam over the first 18 hours utilised 30 principal plant items. The units were installed over the next 24 hours using a Liebherr LR1600-2 crawler crane with 54m of boom, 200 tonnes of main ballast and 360 tonne superlift tray. Drainage works, backfilling and track reinstatement followed.

The Easter possession works were successfully completed on time. ■

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Education Building



Project: Sandford Park School
Contractor: Townlink Construction
Client: Sandford Park School
Lead Architect: O'Donnell & Tuomey Architects
Contract Value: €4.5 million

Completed within a strict programme, on a live site, the new schoolhouse at Sandford was delivered on time and on budget for its first students in August 2019.

This Le Peton Building is a two-storey concrete, brick and timber building, entered through a generous fair faced concrete covered outdoor space which looks back down the school street, with an ancillary block including associated mechanical and electrical works. It includes 10 unique classrooms, internal and external social spaces, a sound enhanced auditorium, rehearsal spaces and music rooms.

The heart of the new building is a polished concrete floor feature and sociable space that consists of green sandstone, exposed concrete walls and bespoke wooden forum seating that links the two floors and looks out to the playing fields. Corridors are wide with concrete carved areas for seating and lockers, to enhance positive social interaction; they are bright and lively spaces with high level windows and visible timber roof trusses.

Externally, the courtyard features concrete paving with a mixture of soft landscaping, concrete steps, a bicycle rack area and a fair faced concrete seat that overlooks the concrete courtyard. This building truly demonstrates excellence in concrete from both the design and construction perspective. ■



Project: Trinity Business School
Contractor: JJ Rhatigan & Company
Client: Trinity College Dublin
Lead Architect: Scott Tallon Walker
Contract Value: €48 million

Trinity Business School truly was a complex project. As the main contractor, JJ Rhatigan brought a confidence and a deep level of experience to this city centre development. The collaborative approach taken from the outset was key to this project's delivery and reflects the mutual respect and trust we enjoy with our client, Trinity College Dublin (TCD), our project design partners and subcontractors, together with Dublin City Council, city transport authorities and Irish Rail. From the installation of 12 tonne beams within the auditorium, involving meticulous traffic management, to the precision engineering required to fit the helical staircase, all construction was carried out with relatively little disruption to the campus life at TCD.

As a registered Heritage Contractor, we have the specialist conservation and restoration skills required to breathe new life into the protected buildings of Pearse Street. As a BIM Level 2 project, we led the process communicating and sharing knowledge across all aspects of the build with every project stakeholder.

JJ Rhatigan is proud to have successfully delivered the new Trinity Business School. The development features nZEB energy performance achieved through a combination of passive design and low energy building and provides an enhanced educational environment for generations to come. ■



Project: UCD Lochlann Quinn Extension
Contractor: Duggan Brothers (Contractors) Ltd
Client: University College Dublin (UCD)
Lead Architect: RKD Architects
Contract Value: €9.6 million

This project on the live UCD Campus Belfield, comprises a three-storey extension to the existing UCD Lochlann Quinn School of Business, with single-storey enclosed roof plant area. The extension incorporated an additional lecture theatre with learning areas, collaboration work spaces, classrooms, huddle/meeting rooms, studios, booths, an extension to the existing café/lounge and all ancillary areas (i.e. storage, toilets, etc.). Minor reconfiguration to existing School of Business, including removal of two balconies were also undertaken. This building, known as UCD Moore Centre for Business, doubles the size of the existing UCD Lochlann Quinn School of Business.

Integrating fully with the Quinn School across three levels, the expansive wing includes interactive learning hubs, a 320-seat lecture theatre, and extensive co-working zones designed to mimic those in start-ups and innovation hubs.

The building was designed to support ways of working, not types of space. The facilities reflect the transformative nature of the learning experience, with a range of space types to facilitate large format learning, whilst affording collaborative opportunities for peer to peer learning experiences: individual study spaces, small group study spaces, group project room / huddles, larger meeting rooms, Maker Space, etc.

Associate Professor Maeve Houlihan, Director of the UCD Lochlann Quinn School of Business said: "Our students have told us that when we change spaces, it changes how we teach and what is learned... This is about students, about business, about society and about changing the way we live and work. This is the future of business education." ■

Healthcare Building



Project: 100 Bed Nursing Facility and Catering Dept, Peamount Healthcare
Contractor: Duggan Brothers (Contractors) Ltd
Client: Health Service Executive (HSE)
Lead Architect: Scott Tallon Walker Architects
Contract Value: €20.65 million

The project comprised the construction and delivery of a €21m 100-bed residential healthcare unit for Peamount Healthcare on their existing campus in Newcastle, Co. Dublin. Extending to c. 6,700m² over 2 floors, the building is arranged as two interlocking squares with private courtyards, to provide 50 no. replacement residential beds for older persons in addition to a new 50 bed unit.

The project was an excellent example of how a construction contract should work. Throughout the project issues were identified early and resolved satisfactorily by sitting down and collaboratively finding optimum solutions, instead of protracted and prolonged email correspondence, which rarely even properly describes an issue. This genuine collaborative approach required a high degree of trust between all parties, and was professionally developed from an early stage. The entire team worked together to quickly resolve all issues in the best interest of the Project, without exception. This approach worked very well.

The building was completed on time. The client and design team were very pleased with the end result. It was completed under budget, with an outstanding safety record and exemplary quality standards. The project was completed with minimal disturbance to neighbours and the healthcare campus operations were rarely, if ever disrupted.

Overall, an exceptional example of what can be done through real collaboration. ■



Project: CUH Radiation Oncology
Contractor: BAM Ireland
Client: Health Service Executive (HSE)
Lead Architect: MCA Architects
Contract Value: €25 million

The new cancer treatment facility in Cork University Hospital, known as the Glandore Centre, was officially opened by Tánaiste Simon Coveney on 21 June 2019. As part of the Government's National Plan for Radiation Oncology (NPRO), the centre will provide a range of services to over 2,000 patients every year in the Munster region.

Located on the CUH campus, the three-storey 8,800m² facility includes seven radiotherapy treatment rooms, diagnostic imaging, brachytherapy superficial treatment and consultation/examination facilities.

A critical element of the CUH RO project was the construction of the concrete shielding walls to the Radiation Treatment bunkers. These bunkers were constructed using a high-density concrete with the walls and roofs being 2.6m thick in locations. Due to the nature of Radiation Oncology buildings the project also had very complex and heavily serviced mechanical and electrical installations.

The new facility will be the first public hospital to use Surface Guided Radiation Treatment (SGRT). SGRT speeds up and improves the accuracy of treatment and reduces the need for immobilisation. ■



Project: Nazareth House Care Home, Dromahane, Mallow, County Cork
Contractor: CField Construction
Client: Sisters of Nazareth
Lead Architect: Reddy Architecture + Urbanism
Contract Value: €16.75 million

The project consisted of the construction of a new 120 bed extension at Nazareth House Care Home in Mallow, Cork and refurbishment of its existing buildings as well as extensive external works incorporating new car parking areas, rainwater attenuation tanks, realignment of existing access roads and landscaping to the entire facility. All of the above works were carried out on a live care home campus with 85 residents and circa 120 staff and involved close liaison with the client, care home management team and design team members to plan and execute the works.

Phase 1 of the works was carried out over a 74 week period (02/01/2017 – 01/06/2018) and consisted of the following works:

- Refurbishment of the lower ground floor of the existing Nazareth House building
- Refurbishment of Newberry House including demolition of ancillary buildings
- Construction of the new 120 bed care home extension including demolition of existing buildings and 26,000m³ bulk dig

Phase 2 of the works was carried out over a 59 week period (02/06/2018 – 19/07/2019) and consisted of the following works:

- Refurbishment of the main Nazareth House building including significant demolition works
- Realignment of the existing entrance road
- Extensive site works ■



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Healthcare Building



Project: Affidea Tallaght
Contractor: Colleen Construction Limited
Client: Affidea Ireland
Lead Architect: O'Briain Beary Architects
Contract Value: €2.6 million

This project was indeed a very challenging one. It required all the different skillsets from the design teams, client and Colleen supply teams, and construction managers from all the specialist contractors to be at their best to achieve the high standard and fast track programme that the client requested. Both were achieved with a lot of challenges. Interaction with the landlord and third parties' groups such as local apartment residents and other commercial tenants that surrounded our construction zone and access routes to the project was crucial. Early engagement with them proved beneficial to us in achieving the success of both phases of this project. The relationships that we have built up over the years on similar projects with the client, design team and supply teams was very evident in this project and created an atmosphere of trust among all parties which allowed us to achieve the construction excellence that was reached on this state-of-the-art medical facility. ■



Project: Tymon North 100 Bed Community Nursing Unit
Contractor: Glenbeigh Construction Ltd
Client: Health Service Executive (HSE)
Lead Architect: Pascall + Watson
Contract Value: €21 million

We believe that this building should be put forward as a finalist for the Healthcare Award because the brief was to give an outstanding healthcare facility to the HSE that allowed its future residents to benefit at the twilight of their lives from a vibrant modern healthcare building, with access to gardens, including a mezzanine roof garden, while allowing the bedroom areas to be homely with a somewhat domestic feel.

We the contractor, along with the full delivery teams of architects and engineers as well as our client feel that this building has achieved all it set down to do and much more. ■



Project: Loughshinny Nursing Home
Contractor: Monami Construction Ltd
Client: Bartra Capital Properties
Lead Architects: TOT Architects
Contract Value: €13.2 million

Loughshinny Nursing Home is a large development built in a picturesque, rural location, but clever design means it does not impose itself on the surrounding landscape. It sets a precedent in terms of quality and value for the delivery of healthcare facilities of this nature, and is a template for the roll-out of further nursing home facilities.

Given its location, scenic views, external landscaping, robust construction, quality of finishes and overall design, we believe Loughshinny Nursing Home achieves the client's goal of "Best in Class" and will operate successfully for many years to come. ■



Project: Maryfield Nursing Home
Contractor: Purcell Construction
Client: PSMG Company Ltd
Lead Architect: O'Connell Mahon Architects
Contract Value: €14.3 million

The development at Maryfield Nursing Home comprised of a new 2 and 3 storey extension to the existing Nursing Home incorporating 69 en-suite bedrooms, day spaces and support spaces. To ensure that the existing Nursing Home could remain commercially viable during construction the project had to be delivered in 2 phases. The first phase comprised of the new 69 bedroom extension and the second phase included the refurbishment of the old building, landscaping etc.

O'Connell Mahon Architects designed a 'Household' model in-lieu of a more standard institutional layout. The layout incorporates 4 households with an average of 15 beds per household. The corridors are generally glazed on one side, with views out onto secure courtyards, allowing even the most vulnerable residents a sense of freedom. All bedrooms have interesting views of the Weir, the Phoenix Park or in the case of dementia patients, to the internal courtyards.

While the objective of the project remained the same as in a conventional construction project, the added complication of completing major demolitions whilst keeping services live to the retained sections of the building, and working in close proximity to almost 100 residents and staff involved a high level of coordination and cooperation between Purcell Construction and the management in the existing Nursing Home. ■

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Project: The Masonry – Iconic Offices
Contractor: CGDM Construction Ire' Ltd
Client: Iconic Offices
Lead Architect: ODOS Architects
Contract Value: €7 million

Spanning 70,000ft². over 6 floors, CGDM completed the renovation, construction and fit-out of this 200-year-old building 'The Masonry' for Iconic Offices. A truly unique property, with Georgian co-working office space interconnecting to a brick and beam warehouse. This lively impressive workspace includes a restaurant and café in a modern setting. CGDM rejuvenated this beautiful historic building which lay idle for years. This building is exceptional in its functionality as it offers everything for professionals under one roof. The Masonry has a unique character; a classic design with a colourful and contemporary twist mixed with elements of the building's incredible industrial past. A 'New York Loft' style look and feel, in the heart of Dublin.

This project was extremely complex and required the finest attention to detail in all aspects of works completed. With tight deadlines and huge challenges, all employees got involved in the delivery of the project; CEO Cathal Grant worked weekends on site supporting employees and labouring. This project created a great sense of teamwork in CGDM. ■



Project: Life Science Office,
 Dún Laoghaire
Contractor: Collen Construction
Client: Confidential
Lead Architect: Henry J Lyons
Contract Value: Confidential

This facilities upgrade project demonstrates construction excellence in both planning and execution. The project involved very significant interventions into a live aseptic pharmaceutical plant in order to carry out very significant modifications to the existing building structure and fabric, effectively stripping back over 50% of the building to bare structure and starting over.

The level of planning and coordination was very significant. This involved, contractor, design team, client team & multiple stakeholders. The potential for, and risk of, a significant business interruption was huge. During the construction phase, the project was identified by the client as the most high-risk capital project being undertaken in any of their facilities worldwide.

Collen Construction brought significant experience and expertise to this project and guided it with a steady hand from inception to conclusion, we worked well with all client representatives and stakeholders and liaised very closely with the design team, addressing each problem as it arose and helping to come up with workable solutions.

This collaborative approach contributed greatly to the success of this project and demonstrates real construction excellence. ■



Project: Roe & Co
Contractor: Flynn
Client: Roe & Co
Lead Architect: RKD & Drinksology
Contract Value: Confidential

Guinness have a history of repurposing their buildings for new uses and the project has contributed greatly to the regeneration of The Liberties area. The client had a very clear vision for the fit out of the Guinness Power House located at St James Gate. The distillery and visitor experience area offer views not just into the working Still House but also into the disused Boiler House space itself – where obsolete plant from the 1950s sit within the corroded steel structure and a criss-cross of rusty gantries, staircase and ladders form an illuminated stage set of industry from the past. This has created a truly innovative internal environment which is very much enhanced by a beautiful bespoke fit out design with an art deco feel.

Lonely Planet has named the new Roe & Co Distillery one of the 10 best new openings for travellers in 2019. By the end of the project, the Power House has come back to life with a new purpose with the creation of 18 new jobs and its doors open to Dubliners and visitors alike. ■

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Fit Out or Refurbishment Over €5m

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Project: Terminal 2, Dublin Airport Retail Duty Free

Contractor: Glenbeigh Construction Ltd

Client: ARI & DAA

Lead Architect: Pascall + Watson

Contract Value: €9.5 million

This project is an excellent example of a high specification retail fit out, with the added complexity of being carried out within one of the busiest operational areas in the country, operating from 5am to midnight 7 days a week, 365 days a year. The works were carried out as planned, on programme and within budgets agreed with the client. Client and passenger feedback have been extremely positive on the new retail experience. Equally as important, as noted above, was that works did not cause widespread disruption and negative sentiment during the project. From researchers, to conceptualisers, to design team, they have worked successfully in partnership with us as main contractors to deliver something that has been planned for years and achieves everything that was set out within the ARI brief for their flagship new retail experience. It is for this reason we nominate it for the ICE Awards. ■



Project: 2 Windmill Lane (2WML)

Contractor: John Paul Construction

Client: Hibernia REIT

Lead Architect: MOLA Architecture

Contract Value: €18 million

2 Windmill Lane (2WML) is the final piece of Hibernia REIT's spectacular multi-award-winning Windmill Quarter. 2WML comprises the re-development of the existing Hanover Building within the SOBO district. Works included extensive re-modelling and upgrading of the existing 5 storey office block. Additional floors as well as extra width were added to create a 5,800m² development of grade A office space over 6 levels. The basement includes new staff shower/change facilities and new bicycle storage, with a 1,000m² ground floor gym operated by Perpetua adding to Hibernia REIT's ambition to create a multi-use community of facilities at the Windmill Quarter.

One of the biggest challenges on 2WML was the restricted city centre site, surrounded by residential and business neighbours on all sides. From the outset of the project John Paul Construction set up the site putting the safety of the general public and local residents as the highest priority. Ongoing stakeholder communication proved to be a success during the programme. Detailed logistic plans and scheduling trackers were established to ensure the refurbishment of the building went to plan. Daily whiteboard meetings with subcontractors enabled delivery schedules to be discussed and coordinated to the highest level, thus minimising impact on the local community.

2WML, constructed to LEED Gold standard provides unrivalled commercial office space within Hibernia REIT's spectacular, multi-award-winning Windmill Quarter, where the Docklands, IFSC and city converge. ■



Project: Station Building II

Contractor: John Sisk & Son

Client: Fenderside DAC

Lead Architect: KMD Architecture

Contract Value: €5 million

This project involved the refurbishment and restoration of part of the former Harcourt Street Train Station and more recently the POD Nightclub. It is a significant landmark in the city centre with renowned historical significance. The project therefore created a unique office space of 15,446ft² and retail works space of 6,000ft² rarely experienced in the current marketplace.

The project includes a new public realm space adjoining the green Luas line on Harcourt which will create a new vibrant external restaurant seating space. This has opened the streetscape between Harcourt Street and Hatch Street continuing the regeneration of this area of Dublin.

The project has been successfully delivered and exceeded client expectations and requirements through excellence in design, planning and management. ■

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ICCI Mosque, Clonskeagh

NEW FRAMELESS GLAZED FORECOURT ENCLOSURES



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The project involves the provision of new glass enclosures to each of the 3 existing courtyard entrances to the Islamic Cultural Centre of Ireland, so as to provide for sheltered weather relief areas.

The project comprises the following works:

- Glass canopy over each of the courtyard entrances
- Glass wind break screen at each entrance
- Glazed glass doors at the entrances of each courtyard and all associated site works
- Completion of all Mechanical and Electrical works
- Completion of all Civil and Structural works



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Project: New frameless glazed forecourt enclosures at the Islamic Cultural Centre of Ireland Clonskeagh

Contractor: Weslin Construction Ltd

Client: Islamic Cultural Centre of Ireland Clonskeagh

Lead Architects: Weslin Design & Build

Contract Value: €1 million

In 2014 Aidan Boyle of Weslin Construction entered into discussions with ICCI for the proposed redevelopment of courtyard open space at the Clonskeagh Mosque. The project posed a number of challenges in dealing with the most effective use of space, recognition of the form and function it would take, the iconic nature of the building and the best design concept to deliver on budget an aspect that ultimately determines the outcome and scale of a project. What developed from this point onwards was an in depth relationship and understanding of the needs and objectives between ICCI and Weslin which allowed the concept to emerge which has resulted in the completed development which now exists on site today.

Weslin took the lead on the project from the start and put in place a design and build arrangement which in essence provided a single point of contact an aspect the ICCI were very happy with.

The operational design and engineering attributes that were conceptualised between Weslin and their design developed a concept that delivered on the objectives of the client, respected the cultural nature of its environment and met with all budgetary measures. The synergy of glass, steel and engineered timber, a design consideration lead by Weslin, has performed a seamless joining of modern design to an iconic landmark. ■



Project: ConsenSys

Contractor: Sonica

Client: Claire Fitzpatrick

Lead Architect: Murray Osbourne (CBRE)

Contract Value: €1 million approx.

ConsenSys is a global blockchain technology company. Founded in 2014, with the Dublin "mesh" opening in just 2018, this is a company that has seen rapid growth. Until February 2019 the team had been working in a shared office set up, and when their time came to scale up, Sonica were appointed to fit out their new space.

The new office was identified in mid-2018; a ground floor, open-plan space located in Shelbourne Plaza, Ringsend Road, Dublin 2. The existing unit was bare shell & core and had never been used to house corporate offices. Our Operations team quickly moved to develop a rapid-pace programme of works to encompass the completion of CAT A landlord fit out & CAT B office fit out works. This included construction of a brand-new toilet block, alterations to existing architectural elements and new works as required to reinvent the space.

The result is a truly modern environment worthy of a company whose mission is to "enable the progress to the next generation of the Web". The office has an industrial style and each desk and workspace is completely customisable to cater to any individual's preference to sit, stand, collaborate etc. ■



Project: IDA Ireland Global Headquarters, Three Park Place, Dublin

Contractor: Castle Group

Client: IDA Ireland

Lead Architect: Mola Architecture

Contract Value: Confidential

The Castle Group were appointed to carry out the supply and installation of all internal ceilings and partitions for the IDA Global Headquarters at Three Park Place. The fit out was delivered over four floors and consisted of office spaces, full commercial kitchen/canteen, micro data centre, conference rooms, library, work cafes, client business lounge, customer experience centre, break out spaces and a state-of-the-art boardroom.

The Castle Group had a twenty-week programme to complete the works which was a challenging programme for works across multiple floors with bespoke materials and complex geometries to both walls and ceilings.

The acoustic design performance played a significant part in the success of this fit-out meaning the selection of materials was critical to achieve the design brief for the client. The Castle Group utilised its extensive experience in the fit out industry to provide early design input and work with suppliers to ensure the correct materials could be incorporated, procured and installed. Some of the materials installed included Hunter Douglas Heartfelt Ceilings, Vogl Ceilings and Armstrong Ceilings as well as Gyproc partition and ceiling systems.

The Castle Group delivered the project successfully and to the highest quality standards. ■



Project: St Bricin's Park, Block 2, Senior Citizen's Development

Contractor: Westside Civil Engineering Ltd in association with Dublin City Council

Client: Housing and Residential Services, Dublin City Council

Design Lead: Dublin City Council

Lead Architect: Gilligan Architects

Contract Value: €1.7 million

The retrofit works to St Bricin's Park Senior Citizen's Development, Block 2 are the culmination of works that have formed part of an ongoing citywide retrofit programme for Dublin City Council, Westside Civil Engineering Ltd has been the main contractor in several of those retrofits.

This retrofit in particular has EnerPHit Certification, Passive House Standard Certification for a retrofitted building. This is proof of having achieved a rigorous, thorough, and demanding energy efficiency standard.

This retrofit advocates a practical and functional model for modernising existing buildings for elderly residents. The thermal performance of the existing building was improved by 80%.

With previous completed retrofits, already achieving the NZEB retrofit standard, a further improvement on the quality of upgrade was embarked on in this project to achieve minimal energy costs for heating, ventilation and hot water production and improve comfort for the residents, using renewable energy by means of an air to water heat pump.

The newly upgraded apartments are high quality homes that meet current space standards, have improved thermal performance and are fully compliant with the current Building Regulations.

This holistic approach takes into account energy efficiency, sustainable use of housing stock, the residents' place within their communities and quality of interior design to make enjoyable homes. ■

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Project: Center Parcs, Longford Forest
Contractor: John Sisk & Son
Client: Center Parcs
Lead Architects: Holder Mathias Architects
Contract Value: €233 million

Center Parcs, Longford Forest is a truly transformational project. Detailed analysis of the Irish leisure market over many years led Center Parcs to conclude that their particular leisure model would be successful in Ireland. So certain are they, that they have invested circa €250m to realise their vision and deliver a truly huge leisure development.

This transformational project provided over 1,000 construction jobs on-site throughout 2018-2019 and supported many others off-site. A great many of those employed on-site during 2018-2019 were local residents. The development continues to be a huge local employer, with Center Parcs currently employing 1,000 persons at Longford Forest.

The project could not have been delivered successfully without a hugely engaged group of very professional companies, who came together and cooperated in a truly constructive way right all through a very demanding 18-month construction period.

This project has provided a world-class family holiday destination of scale within Ireland, a very real alternative to overseas (air travel dependent) family breaks. It has allowed many Irish construction companies to excel and we believe that it is worth of recognition by Irish Construction Excellence Awards 2020. ■

The Dromoland Castle project involved the complete upgrade and refurbishment of one of Ireland's leading 5-star resorts. All aspects of the 16th Century Castle were upgraded to provide guests with a building fitting of Dromoland's reputation for quality and excellence.

The difficulty was to carry out a full upgrade of the mechanical and electrical systems, construct all internal alterations and complete all internal and external finishes in a live hotel environment while also being sensitive to the character and history of the castle. Both national and local subcontractors and suppliers worked together under the supervision of Monami Construction over four years to ensure this iconic building was restored and enhanced to secure its future legacy for generations to come.

The knowledge and expertise and proactive approach applied by our experienced design team, along with the collaborative working relationship developed with hotel management merged to form a successful project partnership that was ultimately the key to the project's overall success.

The challenge on the Dromoland Castle project was to create a relaxed, sophisticated and elegant atmosphere that enhanced rather than competed with the inherent beauty of the building, a challenge we believe Monami both met and exceeded. ■



Project: The Hyatt Centric Hotel
Contractor: John Paul Construction
Client: Realmside Limited (Hodson Bay Group)
Lead Architect: MOLA Architecture
Contract Value: €23.1 million

The brief for this project was to deliver a new hotel in the heart of the Liberties on the main Dean Street / Coombe Road. The work comprised of the construction of 234 bedrooms, kitchen, restaurant, bar, coffee dock, meeting rooms and reception, together with a basement, associated services and siteworks. There were a variety of bedroom types required from regular double rooms to the master suites on the top floor with panoramic views of Dublin city.

The Hyatt Centric Hotel project whilst being a feat from a constructability point of view, also surpasses expectations in terms of contribution to the area and industry. This project has delivered a warm and welcoming landmark that serves to boost the area. It has worked hard to capture and incorporate the essence and history of the Liberties and has employed many local people. This high-quality facility significantly adds to the tourism and leisure industry in a growing and thriving Dublin city. ■



Project: Maldron Hotel, Parnell Square – Extension and Refurbishment
Contractor: Townmore
Client: Dalata Hotel Group Plc
Lead Architect: Douglas Wallace Architects
Contract Value: €9.6 million

Townmore is one of Ireland's largest main contractors with close to 100 talented professional and delivery staff and a portfolio of over 100 projects completed.

The Maldron Parnell Square proved to be one of our most challenging and complex projects to date. This was evidenced by the various working types; conservation, new build, extension, infill, fit out and refurbishment. Works took place from existing basement, to listed 1700s buildings to rooftop extensions and live environment refurbishment. This was further exasperated by the sheer lack of space to work within – Townmore were confined to the bottom of a busy residential laneway adjacent to the hotel.

With the picture set in terms of complexity, Townmore deployed our most experienced and capable team to deliver the project consisting a construction director, two project managers and two site managers along with site engineer, HSEQ officer and associated junior staff.

The project was delivered within budget and programme and to the highest standards within which is evidenced by the success of the hotel post-handover. It is well-known as one of Dublin's busiest hotel destinations for quality and value. ■



Project: Dromoland Castle Hotel
Contractor: Monami Construction Ltd
Client: Dromoland Castle Holdings Ltd
Lead Architect: Thomson Architects / Michael Pledge Architects
Contract Value: €20 million

Public or Heritage Building

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Project: Mullingar Courthouse:
NDFA / BAM Courts Bundle Ltd
Contractor: BAM Ireland
Client: Courts Service / NDFA
Lead Architect: CCH Architects
Contract Value: €20 million

Mullingar Courthouse was an extremely interesting and complex project and we thoroughly enjoyed the construction process. Our team worked together to maintain Mullingar Courthouse's design integrity and quality, producing an exciting building that will enrich the town and uplift the users of the facilities. The new building responds to the historic patterns of development within Mullingar and to the architectural traditions, while expressing the social significance of this important building.

We retained the services of a multidisciplinary team to develop the design intent into the developed design which was delivered to an excellent standard. The building has been independently inspected to ensure that the minimum standards of the works requirements were achieved. As noted in the previous sections we exceeded the clients brief in several areas to provide a building of significance in the heart of Mullingar.

Our conservation approach which has been widely acknowledged, put the historic structure first, proving that intrusive works can be carried out without undue risk on the existing fabric.

Mixing both modern and conservation techniques, we have presented a fantastic courthouse building, fit for purpose and to the highest legal and security standards. We have comprehensively conserved the surviving fabric and features, while enhancing its presentation and have delivered a civic building at the heart of Mullingar town. ■



Project: Historic Leinster House
Restoration & Conservation Works
Contractor: Duggan Brothers
(Contractors) Ltd
Client: Office of Public Works
Lead Architect: Office of Public Works
Contract Value: €11.3 million

The restoration and conservation project at Historic Leinster House involved the renewal of mechanical, electrical and communication services, together with new lift installation; structural strengthening works; fire-protection systems upgrade; air-handling system replacement; refurbishment of existing historic windows, shutters and other internal joinery; stone repairs internally and externally; stabilisation and repair of existing historic plaster ceilings; re-roofing works including asbestos slate removal, lead and copper work repair & renewal; fitting of new WCs at various levels; redecoration and all necessary finishing works.

The quality of the conservation works is acknowledged to be appropriate for the most significant 18th Century Town House in the State. With this extensive restoration work, Georgian Leinster House has been preserved for future generations of members as the home of Parliamentary democracy and for our many thousands of visitors each year.

The clients requirement in relation to safety, security, fire protection, communications and also the coordination of the client fit-out works were met in full. It is also acknowledged that the working environment for the members and their staff and the staff of the Houses of the Oireachtas was maintained to an exceptionally high standard throughout the works. ■



Project: The Shelbourne Hotel
Contractor: John Paul Construction
Client: Kennedy Wilson
Lead Architect: Oliver Laws Ltd
Contract Value: €24 million

In the words of General Manager of the Shelbourne JP Kavanagh speaking about the refurbishment "This Grand Dame keeps improving with age."

This project turned into a labour of love for the entire delivery team as each and every member strived to provide the very best of the best to a project that all knew would truly stand the test of time and be a landmark for generations to come.

Testament to the project is the culture that had developed across the team and contractors of pride in the project and pride in the "Shelbourne team". It's not often in these modern times that an opportunity arises to assemble a team with the talent and skills to complete traditional works to such high standards and John Paul Construction are proud to have such a team. ■

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Public or Heritage Building

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Project: Museum of Literature Ireland, Newman House

Contractor: Purcell

Client: University College Dublin

Lead Consultant: Scott Tallon Walker Architects

Contract Value: €6.25 million

The completion of the Newman House Project heralds an exciting new era in which Irish Literature can be showcased.

Purcell are proud to have been a part of the delivery team for this landmark project. Through a non-adversarial approach, Purcell have always been able to deliver our best work to the client's ultimate satisfaction.

Our conservation expertise was undoubtedly a significant component in the successful delivery of the Newman House Museum of Literature Ireland project.

There was a trust built up between Purcell, the employer and its design team. We had to demonstrate that the building was in safe hands and that we understood and valued its historic fabric.

On reflection, we can be proud of the product left behind, safe in the knowledge that it has been adapted using the best materials and conservation practices.

We were extremely fortunate to have had such an excellent design team who in conjunction with the client made the project a most enjoyable one to have been involved with. ■



Project: Swords Castle

Contractor: Kelbuild Ltd

Client: Fingal County Council

Lead Architect: Architects Department, Fingal County Council

Contract Value: €1.1 million

Kelbuild Ltd were contracted to carry out conservation works to Swords Castle. This project included the following works:

Demolition of 4 derelict dwellings / office spaces were carried out along the Northern Boundary, including stabilisation of remaining castle boundary wall, to enhance the visual impact of the Castle and showcase the stand-out feature of the East Tower. The repointing of the Tower internally and externally and the application of a hydraulic lime harling in 5 coats throughout.

The removal of the existing castle wall walk handrail, the temporary removal of the stone paving, fitting of a new galvanised steel handrail, widened walkway with 3 stairways, the installation of wash lighting and the reinstatement of the stone paving.

The Chapel roof works included the replacement of the existing lead gutters and outlets, the temporary removal of the crenal cappings and embrasures, the installation of lead trays and the reinstatement of the crenal cappings.

The works were carried out to a high quality under the direct supervision of the project architect and the guidance of the project archaeologist to deliver a project using modern engineering techniques while preserving the practices of conservation. ■

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Residential

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Project: Marina Village, Greystones
Contractor: Glenveagh Properties Plc
Client: Glenveagh Properties Plc & Sispar & Wicklow County Council
Lead Architect: O'Mahony Pike
Architects (OMP)
Contract Value: €150 million

The Marina Village, Greystones project is a Public-Private Partnership (PPP) delivered by Glenveagh Properties Plc, Sispar (a subsidiary of Sisk) and Wicklow County Council. The project aims to rejuvenate the town's run-down Victorian harbour by creating a high-quality public plaza, new water-based sports clubhouses, new commercial spaces for cafes, restaurants and shops within the marina, a boardwalk and 14-acre public park all complementing the new residential development element.

Phase 1, managed by Sispar saw the construction of a new harbour, marina, public plaza, breakwater, beach and clubhouses.

Phase 2, delivered by Glenveagh Properties Plc, sees completion of the public works, park and residential element featuring 374 new homes, in a mix of house types and apartments all with a multi-generational appeal, built in an environmentally responsible manner, making use of reclaimed and previously eroded land. The project costs €200m with delivery from 2008 through 2023.

We believe our project rejuvenates the town generating jobs, new revenue sources and providing new homes for the area. It surpasses other projects with the scale of public infrastructure, range of quantifiable benefits for the local community, linkage of the old town of Greystones to its modern new seafront and scenic Cliff Walk to Bray. ■



Project: Birch House – Allendale Square
Contractor: Alanna Homes
Client: Respond
Lead Architect: Delphi Design
Contract Value: €6.2 million

Only through the collaboration of Alanna Homes, Respond and Fingal County Council, the project team were able to deliver a scheme of 28 high quality, thermally efficient new social homes.

The project presented a number of difficulties which were overcome through the experience of Alanna Homes combined with the innovative partnership of Respond and Alanna.

Utilising the 2018 ICE Innovation in Construction Award winning ROSSB process of delivering housing, the precise construction planning and programming tools and the BIM process used, the team delivered the scheme ahead of programme and exceeding expectations while dealing with a constrained site, programme and material management plan.

The use of the Altherm Insulated Concrete Formwork block enabled a safe and rapid delivery of the superstructure and ensured the Practical Completion of the 28 apartments 8 months after the signing of contracts by the project team. The project had little to no impact on the neighbouring properties, roads, cycle lanes or flora complementing the Alanna Homes RIGHT Campaign. ■



Project: MacUilliam Heights, Fortunestown Lane, Tallaght, Dublin 24
Contractor: Glenman Corporation Ltd
Client: Housing Department, South Dublin County Council (SDCC)
Lead Architect: SDCC Architects Dept, Walsh Associates
Contract Value: €4.9 million

Established in 1994 Glenman Corporation Ltd is an award-winning building contractor that continues to work closely with clients, consultants and key stakeholders to deliver the kind of quality that exceeds clients' expectations.

MacUilliam Heights is a social housing project consisting of the construction of 28 new build homes at MacUilliam Heights, Fortunestown Lane in Tallaght, Dublin 24. The development consists of detached and semi-detached two-storey dwellings and were built to a turn-key standard. Pertinent features of these homes include energy saving solar roof panels to reduce energy costs and our carbon footprint, wheelchair access, fully fitted kitchens, hard and soft landscaping which includes front and rear gardens with paving, green areas and trees. All houses are fully compliant in line with Building Regulations. We also developed a large open green area surrounded with a random rubble sandstone wall and associated public lighting and paths.

The build required associated site infrastructure which included the upgrade of existing services and the connecting of new infrastructure services to the existing ones. The aim of this building project was to deliver a high standard of social housing that respects the environment, improves quality of life for the residents and will benefit the community for generations to come. ■

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Project: Rochestown Phase 3

Contractor: Clancy Construction

Client: Dún Laoghaire-Rathdown County Council (DLRCC)

Lead Architect: DLRCC's Architects Department

Contract Value: €3.1 million

The completion of Rochestown House Phase 3 marked the final step of the delivery of 60 quality residential accommodation units at the former Somerton House site off Sallynoggin Road for Dún Laoghaire-Rathdown County Council by Clancy Construction.

Designed by DLRCC's in-house architect's department, the 14-unit development was divided into 3 separate two-storey blocks, each comprising 4 one-bedroom apartments, and 2 one-bedroom bungalows. The two-storey blocks are of brick and RC construction with green flat roofs and the bungalows are timber clad with pitched roofs covered with zinc roofing.

To create a welcoming feel, the new homes were designed in a variety of styles using warm brick and painted timber and are arranged around a courtyard with benches where residents can meet and socialise. The grounds are landscaped with meandering paths planted with new fruit trees, to recall the original use of the area as a kitchen garden for Somerton House.

The homes are built to the highest environmental standards with bright, spacious, comfortable accommodation, with superb indoor air quality and low running costs. All the units are connected to a combined heat and power plant which will ensure a comfortable and healthy indoor environment. ■



Project: Cluain Dara Estate

Contractor: Capcon Building

Client: Landport Estates

Lead Architect: MDG-AT Architects

Contract Value: €2.2 million

This is a very exciting time in our industry & Capcon Building are delighted to be playing our part in an improved residential housing sector.

As outlined in this presentation, Cluain Dara is the perfect example of a project benefiting from higher standards, more discerning clients and a more sustainable outcome for all. We are proud to handover units to clients knowing that their homes are fitted with the latest technology combined with the best quality materials available on the market today.

For the vast majority of house buyers, this will be the most significant purchase of their entire lives, so it is imperative that they receive the very best home we can deliver each and every time. Capcon Building, for our part, will continually seek better and more innovative methods and products to ensure that these high standards are maintained throughout the remaining phases of Cluain Dara and future developments for which we are responsible. ■



Project: 14 Social Houses at Gort Lár Dromcarra Avenue, Tallaght.

Contractor: ML Quinn Construction Ltd

Client: Housing Department, South Dublin County Council (SDCC)

Lead Architects: SDCC Architects Department, Deaton Lysaght Architects
Contract Value: €2.6 million

Dromcarra Avenue is situated in Jobstown, a suburb of Tallaght and so is an outer suburb of Dublin. Jobstown takes its name from Henry Jope who held lands here in the 1250s. It was historically a small rural farming community 3km from Tallaght and close to the western foothills of the Dublin mountains.

I feel we had a positive, community perceptive approach throughout this building project. We maintained a collaborative team approach to the entire project while adhering to budget, programme, safety and technology to deliver a housing scheme that blends into and enhances its surroundings and has a positive psychological impact on its tenants. We ensured every effort was made to achieve the required quality, sustainability, regulatory and legal requirements of the client. ■



Project: Capital Dock

Contractor: John Sisk & Son

Client: Kennedy Wilson

Lead Architect: O'Mahony Pike Architects

Contract Value: €245 million

The Capital Dock Residential Development has set a new standard of living for rental residents in Ireland. Set on the Dublin Docklands, Capital Dock boasts some of the best amenities offered in the market and provides some of the best views in the city.

Sisk was engaged by Kennedy Wilson to manage the construction of this 21,000m², €245 million development. From 2016 to 2019, Sisk, together with the design team, building management team and the client, created a culture of collaboration and determination.

Throughout construction our project team faced many challenges including bad weather conditions, difficult access/egress, a tremendously busy and crowded site (with six tower cranes, four mobiles/crawlers and 1,100 plus workers on site), and ongoing design changes.

These challenges were met by:

- Creating a team culture based on collaboration, excellence and safety
- Applying innovative construction methods
- Engaging superior supply chain partners
- Applying our in depth knowledge of the market
- Applying lessons learnt
- Implementing cutting edge digital tools and processes
- Implementing proven Sisk management systems and tools

Sisk is extremely proud of our involvement in one of the most successful and iconic developments in Ireland. ■

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Project: Plumcroft Primary School, Vincent Road Campus
Contractor: Glenman Corporation Ltd
Client: Royal Borough of Greenwich (RB Greenwich)
Lead Architect: Pollard Thomas Edwards
Contract Value: €10.7 million

Glenman is an award-winning construction company widely experienced in working as a main contractor with public and private sector clients in Ireland. In 2011 we opened an office in London and, just six years later, we were awarded the contract to deliver Plumcroft Primary School after competing against a number of well-known British companies.

Our submission demonstrates the excellence that was borne out of the relationships built up between the project stakeholders. We have highlighted the key issues of the project for the client, illustrated how each issue was addressed and showed how this process led to positive results.

One of these results was that this high-profile development achieved a BREEAM Excellent rating for design and construction, elevating this newly-built inner city primary school into the top 10% percent of UK non-domestic buildings for environmental performance. To achieve an Outstanding Rating means to be ranked in the top 1% of UK non-domestic buildings. With ambitious technical planning from Glenman, an impressive Outstanding Rating was achieved on 10 out of the 11 BREEAM minimum performance standards, deeming the project as an "innovator" for certain sustainable performance aspects and making it a well-deserving candidate for an ICE Award. ■



Project: One Molyneux Street, Marylebone, London
Contractor: CField Construction
Client: Elliott House Guernsey Ltd
Lead Architects: Modulus Studio
Contract Value: £18 million

CField Construction has achieved 'construction excellence' in the design and build of 32 bespoke high-end residential units in a 5 storey building over a triple basement, which houses 32 parking spaces on specialist car stackers with access via car lift from street level.

The experienced CField Project Team collaborated with our specialist subcontractors, design team and BIM team to develop the most effective solution and sequence for constructing this basement on such a tight site located in the heart of London, with excavation works to 13.5 metres below street level.

Single level propping design allowed increased space for larger plant to progress the excavation works more rapidly, as well as implementing a 'top down' tower crane foundation concept, which allowed the crane to be erected and operational one week after the piling rig had left site.

Excellent supervision of trades to achieve high-end finishes has resulted in a top quality product delivered to the client within revised budget and programme. ■



Project: International Convention Centre Wales (ICC Wales)
Contractor: John Sisk & Son
Client: (ICC Wales)
Lead Architect: Boyes Rees
Contract Value: £83 million

The new ICCW is the product of a major investment and will make Wales a prime destination for international business tourism. The result is a stunning venue specifically designed for world class conventions, events and meetings. ICC Wales provides total floor space for meetings, conferences, exhibitions and events of 26,000m² – the equivalent size to nearly four international rugby pitches.

An £83.7m joint venture between Celtic Manor and Welsh Government, ICC Wales accommodates 5,000 delegates and includes a 4,000m² pillar-free main hall, a 1,500 seated auditorium, 15 flexible meeting rooms, a double-height glass atrium and a 2,500m² outdoor plaza.

The South Wales region will reap the rewards with a positive outlook including the addition of 150 jobs for ICCW and many more in the supply chain. The wider hospitality sector will also benefit as a result with increased visitor numbers. One of the first events was the high-profile 2019 UK Space Conference.

The prestigious event brought in around 1,200 delegates and 180 speakers to the venue in September 2019. ■



Project: 'No.26' Carolyn House, Croydon
Contractor: JJ Rhatigan & Company
Client: HSBC Pension Fund
Lead Architect: Liam Russell Architects
Contract Value: £32.5 million

'No.26' Carolyn House, Croydon is an immensely successful project involving the major conversion of an existing 1960s office block into a modern 23 storey, 183 apartment build-to-rent scheme.

JJ Rhatigan & Company tackled complex construction challenges with innovative solutions, such as a 6-storey rooftop addition and a major recladding package in the wake of the London Grenfell Tower fire disaster, mitigating for major building regulation changes which occurred as a result.

We have delivered a project accommodating for several design changes throughout construction as the projects end-user, a PRS provider was introduced. The team have satisfied numerous client stakeholders throughout the project, with a risk averse ultimate client – HSBC Pension Fund.

The building has been transformed from one of dated 1960s fabric and performance characteristics to that of a virtually self-sufficient sustainable 'machine for living' to suit the requirements of 21st Century occupation. This provides for a sustainable future for all, along with the substantial housing opportunities brought to the market in a time of shortage.

Finally, on this project in particular we have led the field in embracing new technology across our supply chain and establishing a robust digital 'Golden Thread' record of building information, critically for fire safety records. ■

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Specialist or Specialist Services Contract



Project: Trinity BT
Contractor: Conway Piling
Client: AbbVie
Design Lead: McElroy Associates
Contract Value: Confidential

Conway Piling moved in on site in September. We were contracted to supply and install 129 Nr 220mm dia bottom driven steel tube mini piles. Transporting on piling rig and steel tubes were undertaken. Vibration monitors were set up.

Piling rig was set up over each location, locations were marked out by the contractor. The leader mast is raised so pile is vertical, and tracks move to adjust the pile position. Mast is raised 1m above base of pile and allowed to free fall, this drives the pile.

Once the starter has been driven to approximately 300mm from the piling platform the second piece is attached by spigot and socket joint. This second hollow steel tube is plumbed, and a continuous weld is placed around the perimeter, driving the continues.

Piles were filled with concrete post installations. Rebar was then placed in the fresh concrete ensuring adequate anchorage for the pile. Pile testing by dynamic load test was then carried out. ■



Project: Center Parcs, Longford Forest
Contractor: King & Moffatt Building Services
Client: Center Parcs
Lead Architect: Holder Mathias Architects
Contract Value: €10 million

At time of contract award, Center Parcs, Longford Forest was the biggest contract that King & Moffatt Building Services had been awarded in Ireland, making it a milestone for the company, with a contract value in the region of €10 million.

Center Parcs, Longford Forest was a marquee project for our company and a major tourism development for the country and the locality.

The project programme was the greatest challenge for our company and for the project as whole, but through teamwork and a can-do attitude this was overcome and the project was delivered on time, within budget and to the client's satisfaction.

This was a very important project that we are very proud of and that has helped raise our company's profile and bring it to another level in the Irish construction market.

It is a world class facility, delivered to the highest quality and we believe that King & Moffatt's work on the project demonstrated construction excellence throughout. ■



Project: Historic Leinster House, Dublin Parliament
Contractor: McCrory Access Solutions
Client: Duggan Brothers (Contractors) Ltd/OPW
Lead Architect: OPW
Contract Value: €1.2 million

McCrory Access Solutions are immensely proud to be associated with such a landmark refurbishment project. It highlighted what was best within the scaffolding industry and showed what was capable under circumstances that would not be deemed normal on a construction project for example. To be employed on such a project where the criteria went well beyond that of a purely commercial decision albeit important illustrates the very high level of expertise required and which was brought to site to complete the project in a safe and successful manner. Ensuring we had an extremely satisfied client from start to finish who have left a very important building in great shape for coming generations to work in and visit. ■



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Project: Western Road Student Accommodation

Contractor: SIAC Roofing & Cladding

Client: Global Student Accommodation

Lead Architect: DTA Architects

Contract Value: Confidential

SIAC Roofing & Cladding was appointed to supply and install the façade of Western Road Student Accommodation and delivered a high quality finish in time for the students arrival. Western Road Student Accommodation is a 190-bed complex located next to the University College Cork. Construction of the façade element for SIAC Roofing & Cladding commenced in January 2018 and achieved completion in August 2018. SIAC were contracted to install roofing and cladding.

The cladding consists of 8mm Swiss Pearl fibre cement panels in varying colours and sizes, fixed onto an aluminium subframe and insulated with Kingspan Kooltherm Insulation. The client required the premises be open for students in September 2019. This target was achieved.

The building has eased the ever growing accommodation needs students face in the area by supplying them with 190 beds to a high quality finish – a minute's walk from University College Cork. ■



Project: Sport Ireland Indoor Arena Phase 1 and 2

Contractor: Riverside Mechanical Ltd

Client: Buckingham Group

Design Lead: JV Tierney & Co

Contract Value: €9.2 million

Riverside completed the new National Flagship Facility of Sport Ireland Phase 1 and 2.

Phase 1, the Multi-Sport Arena, the newest of its kind in Europe is split into 3 smaller Arenas: National Indoor Training Centre (NITC), National Indoor Athletics Training Centre (NIATC) and the National Gymnastics Training Centre (NGTC).

Phase 2 of The National Indoor Arena provides permanent indoor world class facilities for the GAA, Soccer and IRFU including a full-size indoor rugby pitch to IRFU standards, and an Elite Fitness Conditioning Centre with hydrotherapy pool.

Riverside's works consisted of the key component of Design & Build of the Mechanical & Electrical Services.

With Project 2040 and the National Development Plan, the National Sport Ireland Campus has firmly been established as the home of sport in Ireland and Riverside are proud to be a partner in this. ■



Project: Renewal of Coastal Defence Asset 'Structure C' Bray Head

Contractor: TRIUR Construction Limited

Client: Iarnród Éireann

Design Lead: TRIUR Construction Limited

Contract Value: €600,000

This project peaked TRIUR's interest once it was released for tender. TRIUR knew we had the equipment, personnel, expertise and resolve to successfully deliver this project.

Upon securing the contract, TRIUR understood the mammoth challenge that lay ahead and immediately delved into the planning of the works in order to establish a programme which encompassed the project requirements, complexities and constraints as outlined in the tender documents.

Once the project timeline was firmly in place and agreed by both parties, a strong logistic plan was developed to mitigate project delay risks. Each party was aware of their roles and responsibilities within this plan. All tasks were accomplished within the required timelines which enabled works to run smoothly.

The collaborative approach to this project from all parties streamlined the flow of information and allowed the project teams from both TRIUR and Iarnród Éireann to deliver a tremendous end product, on time and within budget.

This certainly is a project to be proud of and is a testament to each and every individual involved from conception right through to completion who truly achieved excellence. ■



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Construction Project Manager

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Project Manager Name: Brian Holmes
Contractor: BAM Ireland
Project: New Mill Student Accommodation
Client: Global Student Accommodation
Lead Architect: Shay Cleary Architects
Contract Value: €25.5 million

Finalist comment:

Brian Holmes is a Senior Project Manager at BAM Ireland with over 11 years' experience in the construction industry. "In 2018 I was the Contracts Manager for the GSA Student Accommodation project 'The Tannery' at Blackpitts, Dublin 8. The site was surrounded by Mill Street, Blackpitts Road and Warren Mount educational centre. The site had the following constraints: an old Dublin wall (protected structure), the Poddle culvert (passed under the site) and was surrounded on the remaining boundaries by a hotel and residential facility. As Project Manager I coordinated the design team, the design process, construction team, all site enabling works, all utility diversions, undertook engagement with all local authorities and compliance applications such as fire, planning, DAC amendments and modifications.

I am driven to deliver BAM's projects safely and to the highest quality for all our clients. I believe that honesty and integrity are crucial to successful project delivery. On every project I adopt a partnership and collaborative approach with our clients, design partners, subcontractor partners and suppliers.

By adopting this partnership approach we delivered this challenging project eight weeks ahead of programme and on budget. The project was completed with no lost time incidents. The Tannery was awarded a prestigious national and European award as a result of my implementation of a pilot silica dust programme (EU OSHA Good Practice Award 2019). I believe that developing an effective project team is one of the primary responsibilities in my role of Project Manager. Teamwork is crucial to project success. It amplifies the results of each member of our team such that the overall result is greater than the individual contributions made by each member." ■



Project Manager Name: James Moloney
Contractor: John Sisk & Son (Holdings) Ltd
Project: Centre Buildings, Center Parcs, Longford Forest
Client: Center Parcs Ireland
Lead Architect: Holder Mathias Architects
Contract Value: €100 million

Finalist comment:

Center Parcs, Longford Forest is a truly transformational project. Managing the construction of the Central Buildings element of the project on-site was a hugely positive experience. The project could not have been delivered successfully without an incredibly engaged group of very professional individuals and companies who came together and cooperated in a truly constructive way, right all through a very demanding 18-month construction period.

I feel very fortunate to have earned the trust of my employers John Sisk & Son Ltd and have been asked to take responsibility for the delivery of this project. When the Central Buildings project commenced on-site I had accumulated almost 25 years of experience working as a construction project manager both in Ireland and the UK.

I've been involved in many great projects previously but Center Parcs was in many ways truly transformational. It's a career milestone through which the past and future will be measured.

This project itself is a world-class development; it has allowed many Irish construction companies and professionals to demonstrate excellence. I very much believe that it is worthy of recognition by the Irish Construction Excellence Awards 2020. ■



Project Manager Name: John Barden
Contractor: Townlink Construction
Project: Sandford Park School
Client: Sandford Park School
Lead Architect: O'Donnell & Tuomey Architects
Contract Value: €4.5 million

Finalist comment:

My extensive experience in the construction industry and project management on this job was the root of the success of the project. The constant communication between Townlink and the client was effective and allowed for feedback to be received throughout the stages of the project. This ensured the project ran smoothly and pupils/staff and the local community were disrupted as little as possible. I ensured quality and safety standards were met at all times, this involved implementing a quality and safety system from the pre-start stage of the project.

Frequent communication with subcontractors enabled everyone to keep in line with the timeframe. Transparency among the team allowed for subcontractors to understand goals and objectives and any issues that arose were addressed and resolved immediately.

Planning ahead and having contingency plans ready to implement in the event of unforeseen circumstances arising, meant this project always stayed within the timeframe and budget. Positive feedback was received from the client following absolute completion and demonstrations. No complaints were received at any point. ■

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Health, Safety & Wellbeing



Initiative Name: Your Safety Is My Safety
Contractor: BAM Ireland

Your Safety Is My Safety is BAM Ireland's cultural change programme. We recognise that people are our most valuable asset and by establishing a relationship with everyone who works with us we will build Health and Safety resilience into our work founded on engagement and trust. This we believe will create an environment where we can complete our work successfully. Success being everyone home safe every day.

The programme is based on some key principles: Recognition and Empowerment of our people; Collaborative working with all who work with us; Engagement by hosting conversations and actively listening to feedback.

These are supported through several tactics which bring the principles to life across our workplaces:

Your Safety is My Safety Workshops – attendees share their experiences with a view to formulating a more inclusive way forward.

Safety Conversation Starters – these are designed to strike up a conversation focused on high consequence risks. The goal is to share thoughts on how we can improve our Health and safety performance.

The key to our approach is the belief that this programme should be owned and delivered by our people for our people therefore all campaigns and programmes are delivered by trained facilitators within our BAM workforce. ■



Initiative Name: Health, Safety and Wellbeing
Contractor: Glan Agua Ltd

Safety and wellbeing are always at the forefront of Glan Agua's approach. We are always conscious of safety on site and do our utmost to ensure that the health, safety, welfare and wellbeing of our staff, supply chain and third-party stakeholders. This is not only led from the top but is instilled throughout all layers of the company. We go above and beyond the legislation to implement best practice and lead the safety programme in the water services industry.

Glan Agua have worked collaboratively with our client on our Health, Safety and Wellbeing Programme to try and actively improve industry standards. From a Leadership and Safety Culture perspective, Glan Agua worked closely with Senior Management in Irish Water and the members of the HSQE team to deliver collaborative solutions.

We will continue to strive for improvements in safety, health and wellbeing across the company to ensure we are industry leaders in the water services industry. ■



Initiative Name: John Paul Construction – Safety Leadership
Contractor: John Paul Construction

At John Paul Construction our safety message is simple – Worksafe – Homesafe. Our overriding commitment is that everyone goes home safely at the end of each working day and this commitment extends to the health, wellbeing and mental health of all our staff, our supply chain and all others who work on, or are affected by our operations.

This commitment is Director led and runs through everything we do as an organisation. We have a strong and committed senior management team who provide safety leadership across our projects. Our Health & Safety Management System is a well-developed and mature system, that is certified to ISO 45001 and our team of EHS professionals work closely with our individual project management teams to advise and support in the implementation of this management system.

Our Worksafe-Homesafe behavioural safety programme brings our message to each and every person who works on our sites and promotes buy-in to health, safety and wellbeing at every level in a real and meaningful way.

John Paul Construction's approach to health, safety and wellbeing continues to be recognised as industry leading through various annual awards, however we never standstill and continue to improve and innovate in order to further raise these standards in our organisation and across the construction industry. ■



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Health, Safety & Wellbeing



Initiative Name: KSS Safety Initiatives
Contractor: Kiernan Structural Steel

Kiernan Structural Steel are celebrating 30 years in operation in 2019. They are one of Ireland's leading steel fabrication and erection contractors, having worked on many of Ireland's notable projects, including the Curragh Racecourse, Intel, Wuxi, MSD and Abbvie Sligo, amongst many.

As a family-run business, the core ethos of the company is to ensure that all of our 200+ workers get home safely every day, so we have invested heavily in our safety systems and programmes to ensure that our name becomes synonymous with excellence in safety standards.

Some of our recent initiatives include the purchase of the Straddler machine for our factory; safety zone control on our forklifts, as well as getting personnel trained as instructors in Manual Handling, First Aid, Abrasive Wheels, PAT Testing, etc. ■



Initiative Name: Mace, Clonee Data Centre
Contractor: Mace Technology Ireland

At Mace our purpose is "to lead, inspire and enable everyone to go home safe and well every day."

"Safety first, Second nature" is the value at the heart of our business' delivery and we are committed to continuously improve our performance in health, safety and wellbeing.

Here on the CLN project, we have fully embraced the above principles and constantly seek to raise the bar in everything we do, by "leading and inspiring". We are fully supported by our client, who as a global construction client, set rigorous standards for their contractors. Within our client's portfolio, Mace are recognised as going above and beyond the standards required, and we are often called upon to present our initiatives and successes to their other GCs. At a recent performance review, our client recognised Mace as "promoting an excellent culture of safety across the project". The most recent British Safety Council audit awarded this project 5 stars, and this culminated in a Sword of Honour award.

These awards and plaudits demonstrate our ongoing commitment to not only maintain but continually improve standards, and ensure everyone goes home safe and well every day. ■



Initiative Name: Standing up for Safety
Contractor: Modubuild

Modubuild is an international specialist contractor, headquartered in Kilkenny Ireland with regional offices in Amsterdam, Brussels and Manchester providing on-site modular construction solutions on some of Europe's largest high-tech projects, primarily in the biopharmaceutical, pharmaceutical & data centre sectors.

Modubuild also operate a 140,000-square-foot off-site production facility in Castlecomer, where entire high-tech buildings are designed and constructed within the facility and transported to sites across Europe.

Modubuild places a high emphasis on safety with everything we do focused around our "Standing up for Safety" campaign. This campaign looks at 'Just2minutes' our CSR and H&S initiative for Modubuild to enhance the knowledge and to demonstrate what to do in the event of a sudden cardiac episode. We outline how we demonstrate all things Health, Safety & Wellbeing at Modubuild and how we implement such through specific events such as Mental Health Day, Construction Safety Week and attending Mental Health and Well Being Summits. From these events we create workshops within our working environment to pursue positive Mental Health and Wellbeing throughout the company both on and off site. In addition, we discuss our SORs and SPAs and Toolbox Talks concluding with our Health & Safety statistics to date. ■



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Health, Safety & Wellbeing



Initiative Name: Safe Smart ID

Contractor: Murphy International Ltd

At our Safestart 2019 event in January, Murphy issued all employees with a Safe Smart ID Card.

The card, is used for various purposes. Firstly, there is an important message on the back of the card, signed by our Managing Director, re-assuring personnel that their safety, health and wellbeing are the most important things to Murphy.

Secondly, all ID cards have a unique QR code, which when connected gives Project Management access to the employees training certificates [only accessible by Murphy personnel]. The unique QR code also informs the Project Manager which Respiratory Protective Equipment the employee needs to wear. This enables the Project Manager to ensure he has a correct supply of RPE in the stores.

As well as this, a symbol may be noted on the front of the ID card if there are any medical restrictions the Project Manager should be aware of. This symbol prompts the Project Manager to contact the Occupational Health Advisor who will inform the Project Manager of the appropriate restrictions. For example, certain medical restrictions could prohibit confined space working. This approach ensures confidentiality is maintained at all times whilst ensuring the employee is protected. ■



Initiative Name: HSA Case Study

Contractor: P.J. Hegarty & Sons U.C.

P.J. Hegarty & Sons U.C. are very passionate about Environmental Health and Safety. We not only want to ensure an injury incident free work place but we are also keen in developing industry leading standards and ensuring a positive safety culture that influences physical health and mental wellbeing for all our workers.

P.J. Hegarty & Sons U.C. is a family organisation and we treat any individual who we share our working day with like family no matter if they are a contractor, client or supplier. We are all one team with one shared vision and to achieve that vision we must work together in unison.

PJH have a Grade A Safe-T-Cert and ISO 45001 certification. We focus strongly on ensuring safety on all our projects is led by our management. In 2017 PJH developed and rolled out our 'Supervisory Leadership Skills Programme' course which generated such a positive safety impact that we, in conjunction with Keith Foran & Associates Ltd, helped develop the new IOSH Environmental Health and Safety for Managers course which has been actively running since July 2019.

Ensuring our Project Management teams have sufficient training, information and support is the key to creating and sustaining a positive safety culture.

P.J. Hegarty's biggest asset is our people and their influence. Environmental Health and Safety is a continual effort and there is never an end point. Our aim is to ensure we are focused on continual improvement and ensuring the best safety standards are implemented so all our workers can go home safe and hopefully with a smile on their face. ■



Initiative Name: Step Up to Zero

Contractor: John Sisk & Son

Sisk's approach to occupational health and safety emanates from our value of Care. We firmly believe that looking after our people and those who help us deliver our business should be at the forefront of everything we do, all the time. Our decision in 2017 to set a target to improve our safety maturity and have that measured against a demanding and international respected model demonstrates the absolute commitment to really making a step change in occupational health and safety performance. We invest in the tools and systems to support our people and to give them the best chance of delivering success on our projects. We recognise and value the contribution our supply chain makes to our success and performance and we provide them with the support they need to deliver their work for us safely. Our Zero Philosophy is clear, and we will continue to pursue this year on year. ■



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Innovation in Construction

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Innovation: Implementation of Artificial Intelligence to Construction

Contractor: BAM Ireland

One of the often-overlooked consequences of transitioning to digital is that with the reduction of paper, there is the increased volume of digitised data and information available to use and manage.

Where information was previously lost through the cracks of the paper process, it is now retained, and this creates a new problem – which information is the most relevant right now!

BAM Ireland's Digital Construction department partnered with software vendor Autodesk to address this problem on their construction projects, through Autodesk's new Artificial Intelligence application 'Construction IQ'.

Construction IQ looks at the interactions within the project such as how many snags have been raised and how much risk do they carry? Dashboarded results provide better understanding to the project team and allow them to respond appropriately.

From this pilot BAM Ireland found a 20% improvement for quality and safety responses, and found significant opportunities to improve their project execution and delivery. ■



Innovation: The Digital Cube

Contractor: Colleen Construction

Since its inception 'The Digital Cube' has become an integral part of project execution for Colleen on our complex multifaceted projects. The module, housing large touchscreen panels and running the most advanced and cutting-edge technology, has brought the workspace environment of the office to the coal face of our site delivery teams. The innovative equipment embedded a safe and secure unit allows for rapid access to construction information while enhancing collaborative decision making and real time problem solving.

This innovative adaption of several discrete independent tools collated together in a single unitised platform empowers our multi-disciplined project delivery teams to have the most optimised means of gaining access to real time information as a collective. It fosters problem solving by presenting readily available solutions at their fingertips while embedded in the coal face of the work front.

The benefits of its implementation have been evidenced onsite from the reduction in time away from the workface thus increasing the output of our teams. This has been realised by enhancing KPIs, optimising and assuring quality, stead-fastening safety through collaboration and fast tracking the multidisciplinary execution process.

For Colleen 'The Digital Cube' has embedded the future of construction to our projects of today. ■



Innovation: LocusEye

Contractor: RMD Kwikform

LocusEye is RMD Kwikform's in-house designed visualisation software. Created to support customers, our temporary works engineering designs are automated to produce high quality, highly realistic 3D renders of their project.

As engineers, we are often in danger of being too technical; 2D drawings and even 3D BIM models can be intimidating to the untrained eye. However, with LocusEye we have ensured that temporary works designs are accessible, digestible and easy to interrogate. Using virtual and augmented reality, customers can see our formwork, shoring and groundworks solutions in-situ, on their site. LocusEye breaks down the barriers of communication and ensures transparency across the supply chain. LocusEye has also been adopted by our customers, with our support, to secure high-profile tenders.

LocusEye is available for download via the App store on iOS and Android. By making LocusEye open for public download, customers can view general temporary works designs for specific applications and access their own private designs for current projects. ■



Innovation: Robotic Block Laying

Contractor: John Sisk & Son Ltd (E05 Quebec)

Sisk have managed to turn a vision into reality. Through investment, collaboration with industry partners, research and product development as leaders in innovation, Sisk is committed to leading on innovation, such as construction robotics, in order to mitigate construction safety and wellbeing hazards, while also delivering on our lean and sustainability strategic objectives. We wish to be seen as innovators in the industry and send a strong message to stakeholders in the markets in which we operate that we are serious about developing and implementing technology that is waiting to be adopted.

We believe that the investment in researching, piloting and implementing technology that reduces the risk of accidents and injuries, while also prolonging the working career of a diminishing cohort of skilled trades is invaluable. Moreover, when you consider that together with an innovation which not only enhances the human sustainability factors, but also increases productivity on site, this is an enabler for Sisk to offer our clients better value for money through, better productivity, a reduction in project timescales, overall better quality and a wholly leaner approach to the installation of brickwork and blockwork on our projects. For us, this is the definition of Construction Excellence. ■

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BIM Excellence

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Project: Waterford Advanced Technology Building
Contractor: Clancy
Client: IDA Ireland
Lead Architect: van Dijk International
Contract Value: €5.25 million

In June of 2019 Clancy completed work on a new state of the art Advanced Technology Building (ATB) in Waterford. This ATB for IDA Waterford was designed and delivered to provide high quality accommodation to FDI clients.

Clancy is an SME main contractor who's many projects work in the realm of €5m or less. We understand the balance of technology and people and the benefits that arise as a result. In a lot of ways implementing BIM and Digital Strategies on a €5 million euro project like the Advanced Technology Building is far more difficult than on a €200m project where clients may have different expectations and requirements. However that doesn't stop us trying, and to this day we continue to innovate within and educate our supply chain and partners to ultimately provide a better service to our most valued clients. By being willing to examine our processes and lead our organisation through adopting new technologies, we are ensuring project success like we achieved for the IDA on this project. Aligning our technology strategy to our overall goals, we are now able to not only consistently capture critical project data, but also analyse it to implement continuous improvement across our company – with a special focus on health, safety, and quality. ■



Project: 'No.26' Carolyn House, Croydon
Contractor: JJ Rhatigan & Company
Client: HSBC Pension Fund (UK) Limited
Lead Architect: Liam Russell Architects
Contract Value: £32.5 million

JJ Rhatigan recently completed a major 23 storey, 183 apartment build-to-rent scheme Carolyn House, Croydon where a 'Golden Thread of Building Information' initiative was implemented digitally. The initiative demonstrates BIM excellence applying best practice in project delivery through the use of data, Autodesk BIM360 platforms and digital assets which sets an exemplar for future projects.

The project commenced mid-2017. In the wake of the UK Grenfell Tower disaster, the industry was subject to a major interrogation in the form of an Independent Review of Building Regulations and Fire Safety with Dame Judith Hackitt publishing her final report, 'Building a Safer Future' in May 2018.

The report set out fundamental recommendations in respect to establishing a 'Golden Thread' of building information as evidence of change control and associated record keeping. The aim is to create transparency, ensure accountability for decisions and disintensive corner-cutting.

Ultimately, JJ Rhatigan's BIM initiative implemented the principles set out in the Hackitt report, providing an accurate digital record of fire safety / installation to safeguards those who will use, live and work in buildings in the future.

Furthermore, JJ Rhatigan have led the field in embracing new technology across their supply chain, through training and bringing subcontractors along for the journey, many of which have changed their systems on other projects as a result. ■



Project: Lidl Regional Distribution Centre
Contractor: John Paul Construction
Client: Lidl Ireland GmbH
Design Lead: SDS Engineering/MCA Architecture
Contract Value: €73 million

John Paul Construction are proud to have recently completed the new €73m regional distribution centre for Lidl. The facility, located on a 32-acre site in the outskirts of Newbridge, Co. Kildare combines 58,000m² warehouse space, 20,000m² of cold storage space and 80,000m² of external HGV concrete yard.

Delivering exceptional quality was the major focus at tender stage. However, project execution and delivery became equally important during tender negotiations, as the client reduced the 16-month programme proposed for the enabling and new build works, by 3-months.

Embracing BIM processes, technology and collaboration were fundamental to the delivery of the project to meet our clients' requirements. The BIM tools and processes combined with innovative construction methodologies and our approach to value engineering ensured that we delivered a world-class facility that exceeded all of the client's high expectations. John Paul Construction's non-adversarial pursuit of excellence of BIM and all metrics; safety, considerate constructor, quality, commercial, environmental, and ultimately the endorsement of a delighted client that makes this project a worthy entry for an Irish Construction Excellence Award.

The leadership exhibited by the John Paul Construction management team together with their technical ability at every level and personal commitment ensured that the project was completed safely and on programme. ■

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BIM Excellence

IN PROUD ASSOCIATION WITH CITA



Project: CLN 5 (Hyperscale Data Centre)

Contractor: Mace Group Ireland

Client: Confidential

Lead Architect: Sheehan Nagle Hartray Associates (SNHA)

Contract Value: Confidential

Such is our success on the CLN project, it has been seen as the leading project across our client's data centre program worldwide which is currently over 15 projects in size. Many of our innovative processes, workflows and technologies have been standardised and rolled out across our client's worldwide programme, a strategy which is led by original members of our project team in CLN. It is not only our client that has noticed our successes in terms of BIM & Innovation, we have won numerous awards internally within Mace for our achievements and digital transformation, similarly to our client, many of our workflows and processes now being standardised throughout Mace Group worldwide. We aim to continue our digital and BIM journey, by learning from other projects and also developing more innovative ways to utilise digital means as a tool for efficient building. ■



Project: Center Parcs, Longford Forest

Contractor: John Sisk & Son

Client: Center Parcs, Ireland

Lead Architect: Holder Mathias Architects

Contract Value: €250 million

Center Parcs Ireland, set out to develop the Longford Forest Holiday Village with the aim of providing annual holiday and short breaks in this largely coniferous woodland which through careful design and management was transformed into a vibrant and diverse forest experience. The site comprises an area of 164 hectares (405 acres) and the development consisted of the construction of a sub-tropical swimming paradise, aqua sauna building, arrivals lodge, cycle centre, woodlands building, pancake house and associated amenities and facilities. Accommodation on the Village takes the form of 470 lodges of 5 different types which are described as self-catering holiday accommodation units.

Sisk, set out to deliver this project with their Digital Project Delivery (DPD) Approach utilising, 3D BIM for coordination of over 50 models from multiple disciplines from across Ireland, the UK and Europe. 4D BIM was a major part of the effective project management during the construction of this project as the programme was critical to the successful delivery.

This project is a brilliant example of BIM Excellence in the Irish construction industry and we believe that it is worthy of recognition by Irish Construction Excellence Awards 2020. ■

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Course Title: Diploma in Applied Building Repair and Conservation
Course Level: NFQ Level 9
Provider: Trinity College Dublin

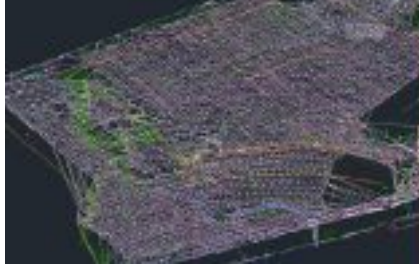
The Diploma belongs to Trinity College School of Engineering. It was developed in 2002-03 in answer to the industry's need for expertise in historic and traditional materials and fabrics.

The main purpose is to provide the students with applied knowledge and skills on the repair and conservation of existing structures. The multidisciplinary and practical nature of the course allows us to meet the needs of industry. The combined professional background and experience of our 46 lecturers including academics, architects, engineers, archaeologists, surveyors, restoration experts (plasterers and masons, timber, metal and thatch craftsmen and quarrymen) provides a comprehensive knowledge. The course is continuously being updated to include latest developments in building conservation such as thermal retrofitting for energy performance and HBIM- historic building information modelling for heritage structures.

The course brings academic research into industry, government institutions and local authorities. Similarly, industrial outcomes and knowledge are fed into the course through the professional experience of our lecturers.

Our students come from several backgrounds and the multidisciplinary nature of the course allows them to gather knowledge on the different aspects of conservation.

The course has been approved by Engineers Ireland (EI) as meeting their requirements for continuing professional development and is recognised by the Royal Institute of the Architects of Ireland exempting their members from their Conservation (Grade III) Accreditation. ■



Course Title: Higher Diploma in BIM for Civil Engineering & Construction
Course Level: NFQ Level 8
Provider: Athlone Institute of Technology

The construction industry is facing unprecedented change, driven by digital transformation. This course is designed to equip graduates with the essential skills to act as leaders in the digital construction environment. BIM is a process involving the structured sharing and coordination of digital and non-digital information about a building project throughout its entire life cycle, from design to procurement, construction operation and management stage, all the way through to decommissioning. There is a shortage of qualified graduates capable of the efficient coordination of processes, workflows, people, assets and technology that BIM requires. Through an extensive engagement with our industrial support base we quantified this requirement for graduates. We have designed the programme to specifically equip graduates with the skill-sets to act as BIM leaders, the programme is delivered in a blended format, where students study online, supported through our extensive e-learning facilities. In addition, students take part in a workshop week each semester to allow the essential collaborative element of the programme achieve its full potential. This delivery structure allows students to effectively and sustainably combine work and study at low cost, and achieve a skill-set that will enhance their own capability and the performance of organisations they serve. ■



Course Title: CIT Certificate in Building Information Modelling (BIM) Technologies
Course Level: NFQ Level 8
Provider: Cork Institute of Technology

The School of Building and Civil Engineering at Cork Institute of Technology (CIT) has successfully delivered the 15 credit SPA Certificate in Building Information Modelling (BIM) Technologies since 2015-16. The programme started as a Springboard offering but given the rapid advances in the use of BIM in the AEC sector in recent years it has proved a very successful CPD provided support to local industry. The fifth delivery of the programme is currently in progress, and when complete, a total in excess of 100 students will have completed the programme. The participants represent the full range of disciplines and include individuals from small, medium and large enterprises. The delivery team for the programme comprises a combination of CIT academics with significant industry experience and industry professionals currently delivering BIM projects in practice.

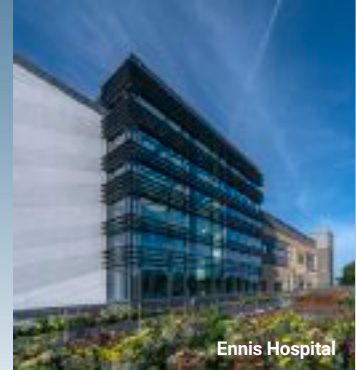
The future vision for the programme will see it as an embedded award within the newly established NFQ 8 BSc (Honours) in Building Information Modelling & Management programme. This will support industry in its transition within the digital age. At an individual level, the existing and proposed programmes offer new and exciting career opportunities for technicians and technologists within the various cognate disciplines in the AEC sector. This is in keeping with CIT's vision which is "to empower individuals and enrich society through innovative use of knowledge". ■

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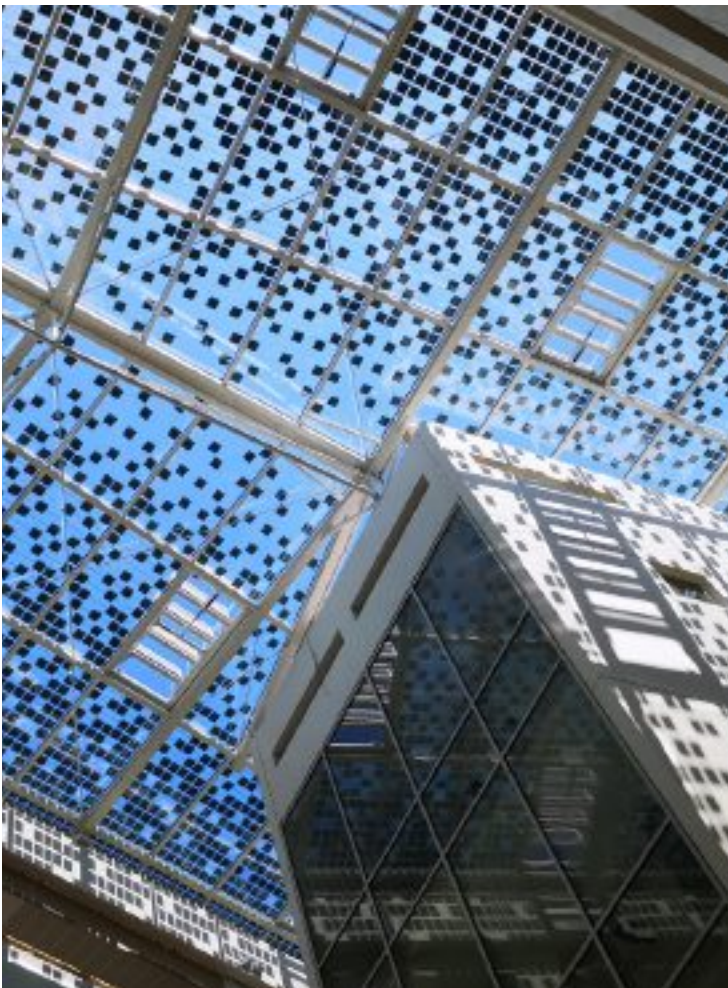
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Third Level Course – Postgraduate or CPD

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Course Title: DT8155 BSc (Hons) in Quantity Surveying and Construction
Course Level: NFQ Level 8
Provider: TU Dublin

It can be seen that this course is playing an important role in addressing the shortage of Quantity Surveyors in Ireland. The skills graduates will obtain on the course will be valued in the property and construction industries, as they establish careers in the construction industry. The model of this learning reflects the vision of the “applied” nature of learning within the new TU Dublin and the proximity that the University has with industry.

In direct response to the unprecedented demand for Quantity Surveying graduates, TU Dublin has responded to this need in partnership with local industry. The 2015 report issued by the Society of Chartered Surveyors Ireland (SCSI), Employment Opportunities and Skills Requirements in Construction and Property Surveying 2014-2018, called for the constant collaboration between industry, SCSI and third level institutes in order to ensure the skill levels of the graduates fits the requirements of the real world. This programme is a result of this successful partnership approach. ■



Course Title: Certificate in Building Information Modelling (BIM) with Revit
Course Level: NFQ Level 6, 10 ECTS
Credit module
Provider: Institute of Technology Tralee

This programme serves as a basis for IT Tralee to function at the core of the local Building Information Modelling (BIM) community of practice.

Learners are provided with a platform for practicing 3D building modelling, attaching and editing associated information, developing that information through the project stages and exchanging it using advanced tools and internationally agreed formats. In a work-friendly, flexible online structure, IT Tralee acts as a hub for participants of multiple disciplines

to engage each other to experience how BIM is implemented on projects. Content is linked to their current practice and ability so that they are able to use their newly acquired skills right away.

The course is a single 10 ECTS Credit module. Through lectures and project work, students create model content as a basis for collaborative exercises. Lectures demonstrate realistic workflows and how they are improved through the incorporation of the same BIM techniques that are being learned. Learners engage on their own terms, using their own experiences to the benefit of all. ■



Course Title: Professional Diploma (Architecture)
Course Level: NFQ Level 9
Provider: School of Architecture, Planning & Environmental Policy, University College Dublin (CIT)

The role of an architect in the construction industry is complex; it ranges from building designer, to client professional advisor, to design team leader, to contract administrator; architects are educated in design and materials, in the context of history and culture.

Their responsibilities are onerous; architects owe obligations to their clients, to those on the teams designing and constructing buildings, to society, the environment and their own professional codes.

In order to carry out this role, graduates must become fully conversant in the body of knowledge of the profession and have the skill and competence to apply their knowledge. Preparing for independent practice as a professional, through the Professional Diploma, enables students to develop key skills in research, critical analysis, objectivity and communication. The course supports them to become fully conversant in industry-specific practices, procedures and statutory requirements, and to understand their wider role and ethical obligations. ■



Course Title: BSc in Construction Site Management
Course Level: NFQ Level 7
Provider: Waterford Institute of Technology

The BSc in Construction Site Management has been developed in response to the construction industry's critical need for suitably qualified and experienced Site Managers. Participants typically include those who have progressed to a supervisory/management role from a trades background and/or with substantial site experience.

A full Level 7 qualification, it is delivered over 12 months via an innovative blended delivery approach combining classroom and online learning. This has proven to be attractive to both learners and their employers, facilitating student flexibility and ensuring that companies retain and upskill staff while remaining in the workplace.

The intended participants of this course have historically suffered from a lack of appropriate educational opportunities and many have had to overcome significant personal challenges in returning to formal education.

With these issues in mind, the course places a strong emphasis upon recognising and incorporating the learner's experiences into the learning process moving away from teaching to learning that embraces reflection, discussion and guided development. The curriculum focuses upon the development of both construction-specific competencies and broader personal and professional skills.

Through this educational process, graduates of the course have grown in confidence and are now assured in their role as Construction Management professionals. ■

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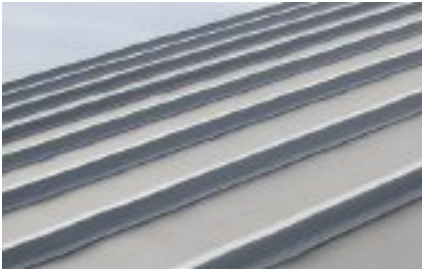
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Construction Product Innovation

IN PROUD ASSOCIATION WITH IRISH BUILDING MAGAZINE



Product Name: RENOLIT ALKORSOLAR
Company: Laydex Building Solutions

RENOLIT ALKORSOLAR – The fastening system of choice for flat and pitched roofs. The RENOLIT ALKORSOLAR system brings a huge change to the way in which photovoltaics are fixed to single ply membrane. 100% secure, hot-air welded to the surface of the waterproofing with no additional ballast. The ALKORSOLAR profile a lightweight solution for the secure installation of solar panels on synthetic roofs without perforating the waterproofing.

Discover 5 significant reasons for choosing RENOLIT ALKORSOLAR:

1. Lightweight but very strong. Depending on the choice of the solar panels and the aluminium construction, minimal extra weight.
2. Fully watertight. No penetration of the roofing membrane. Saves time, a very simplistic system.
3. Quick and easy to install. Easy installation and suitable to all types of PV and solar thermal systems.
4. Easy to maintain. All elements are easily accessible for maintenance.
5. Surprisingly versatile. Ideal as a carrier system for securing façade materials on the roof.

The ingenious features of RENOLIT ALKORSOLAR profiles are also evident in new alternative applications for the finishing of buildings. The lightweight profiles may also be used as a carrier profile for securing cedar shingles, aluminium composite sheets, timber planking or even trellising for vegetation. ■



Product Name: Altherm ICF
(Insulated Concrete Formwork)
Company: Altherm ICF

The future is in Nearly Zero Energy Buildings, and industry leaders are advocating the use of new and innovative construction materials in order to meet the European Energy Performance of Buildings Directive.

Altherm ICF is one of the innovations created by the industry in direct response to the demand for change and aims to change the built environment. This Irish made, NZEB-ready Insulated Concrete Formwork system consists of two EPS panels spaced apart by high strength polypropylene webs. This system forms a fully insulating, permanent shuttering mould into which concrete is poured. Its many advantages mean that ICF is becoming an increasingly popular choice across all kinds and size of build.

Once cast, the concrete core not only provides the necessary structure for the building with the structure's lifetime durability, but also integrates with the ICF to provide superior sound insulation, and with U-values of 0.20/m²k or lower being easily achievable, all adhering to the latest fire safety standards.

At less than 3.5kg each, the forms are a user-friendly system to build, with all of the related handling and safety benefits. Due to its innovative design, this increases speed of construction, reduces waste and meets the standards of the Building Regulations 2019 Part L – Conservation of Fuel and Energy.

The powerful combination of the patented, reversible interlock, EPS composition, innovative web design and web spacing result in a simple, strong framework system that requires less support during installation. The result is straight, flat and plumb walls and minimal wastage.

The response to Altherm ICF has been extremely positive. Richard Callaghan of Delphi Design Architects and Planners says that it's a fast and efficient way to achieve a well-insulated structure, with extremely low thermal bridging at critical junctions.

The benefits of Altherm ICF can be clearly seen on site. It is very lightweight, eliminating the need for heavy craneage, and significantly reducing the risk of personal injury on site. The convenience of its all-in-one system lends itself to significantly shorter build times. Walls can be erected in any weather and programmes require minimal lead-time as the product can be delivered directly to site from their manufacturing plant in Dublin.

Altherm ICF enables significant reductions in build duration compared to traditional building methods. ■



Product Name: DSH 600-X with DSH-P
Company: Hilti (Fastening Systems) Ltd

DSH 600-X petrol saw is the newest addition to Hilti's petrol saw portfolio. With 66cc two-stroke engine weighing only 9.1kg, it is the lightest and most compact saw in the portfolio. The new design will bring the user better balance and versatility in both horizontal and vertical cuts to concrete and metal. Achieving a cutting depth of 125mm with a 300mm blade it also gives more productivity and thus savings to the user on materials and versatility. With the attachable DSH-P water pump the user can negate the need for a pump operator or expensive electronic water pump altogether while keeping the user safe from the generated concrete cutting dust. ■

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Construction Product Innovation

IN PROUD ASSOCIATION WITH IRISH BUILDING MAGAZINE



Product Name: FasterFix Modular Rebar
Company: Midland Steel Reinforcement Supplies

Midland Steel supply FasterFix Modular Rebar panels to the Irish and UK construction markets. This off-site prefabrication saves up to 75% of time when compared to the traditional on-site method of steel fixing. This product gives the client a distinct time and quality advantage over the traditional method and requires as little as two steel fixers to install the panels on-site. From our experience during previous projects, a panel up to 50m2 can be installed and fixed under 15 minutes. These panels are pre-slung to allow an efficient installation process and are supplied with a Temporary Works Design Certificate and an installation key plan sequence.

The key advantages of Midland Steel's Prefabricated Double Skin Slab Reinforcement product are:

- Reduces on-site steel fixing time.
- Counteracts the issue of a lack of skilled on-site labour.
- Increases the efficiency of reinforcing steel installation on-site.
- Reduces the number of processes involved in comparison to the traditional method.
- Saves the client on labour costs.
- Increases on-site safety with the elimination of loose bars and the reduction in on-site workers. ■



Product Name: Ascent 200
Company: RMD Kwikform

Ascent 200 is the next generation debris protection screen system. The system was designed to provide complete protection for workers and the general public during high-rise construction projects. Its features and benefits range from a new and stronger single depth mast, a choice of five different cladding options (including advertising and branding possibilities) and hydraulic climbing to opening slab jaw brackets and retrievable accessories. These make Ascent 200 top of the class when it comes to safety, versatility, saving money and time.

Ascent 200 addresses the challenges of major contractors and customers and offers a solution that meets the requirements of a changing market.

Ascent 200 is going to be launched in November and will be available in all our operating countries. ■



Product Name: Stainless Steel
Pneumatic Gullies
Company: RTC

This product was fully designed, tested and built in Ireland in an ISO9001:2008 factory in Wexford, commercialised by RTC, Tipperary. It was built to meet the demanding requirements of a world leading pharmaceutical factory setting up in Ireland.

The products have since been used in many more world leading factories in Ireland, and also in the USA, Canada, Israel, Benelux countries, Switzerland, the UK, Portugal. It has led to Kent Stainless growing employment to a level of 120 employees and RTC growing to 15 employees. It is now leading us to design new complementary products to this sector and the higher value-added ranges we develop keep international competitors at bay.

Features / Benefits:

- Manufactured from grade 304 or 316 stainless steel.
- Fixed height.
- High flow rate.
- Can be used in light and heavy-duty areas.
- Side outlet option available.
- Supplied with foul air trap and holding flange.
- The pneumatic cylinder is highly corrosive and acid resistant.
- Can be incorporated into channels. ■

IN PROUD ASSOCIATION
WITH IRISH BUILDING MAGAZINE

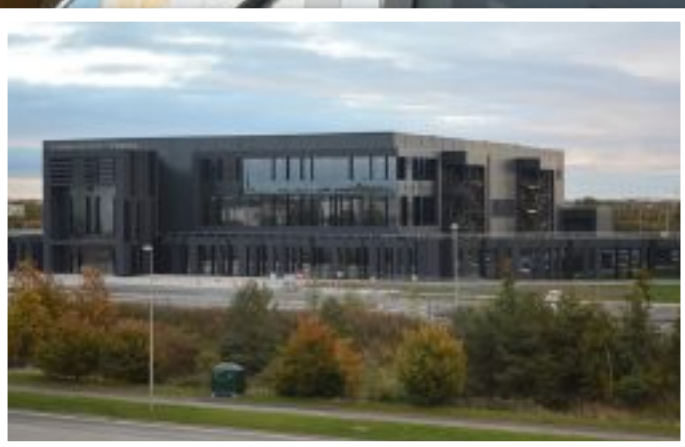
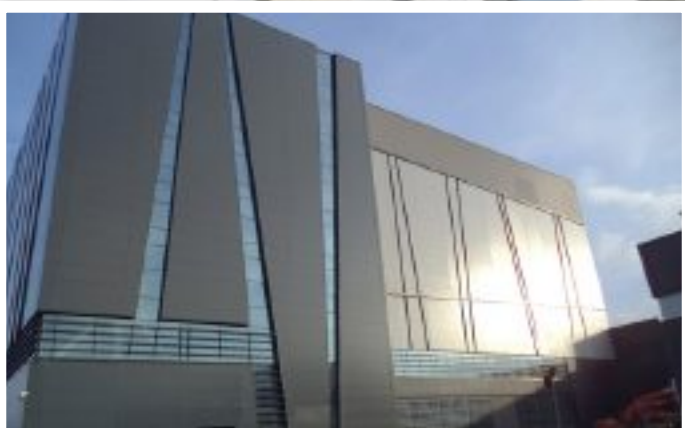
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Construction Product Innovation - Digital

IN PROUD ASSOCIATION WITH IRISH BUILDING MAGAZINE



Product Name: Leica DSX
Company: Leica Geosystems –
Part of Hexagon

Unlike any other GPR solution, the Leica DSX maximises the productivity of construction companies involved in breaking ground thanks to cutting-edge DXplore software, automating data analysis and turns it into clear and actionable information for any user within minutes.

Following the HSG47 guideline for avoiding danger from underground services and PAS128 specification for underground utility detection, DSX with DXplore incorporate both guidelines by supporting import of utility records to the project, entering of Points of Interest (POI's) based on site reconnaissance and detecting results from cable locator surveys.

For users who need output in the local coordinate system, DSX solution allows configuration of GNSS antennas through DXplore and real-time streaming of coordinates for the most accurate utility mapping application.

The 3D georeferenced map of underground utilities can be used in any CAD and BIM software for further processing, planning and overlaying. ■



Product Name: Construction Camera
Company: Evercam Ltd

Evercam Construction Cameras, launched in 2015, are currently used by over 50 of Ireland's leading construction companies. With almost 150 projects currently live in Ireland and the UK, our company has grown fast to become the main provider in Ireland of such services and is growing quickly in the UK.

Our technologies such as video analytics to count vehicles, equipment or people on site are cutting edge.

We have been at the forefront of working with clients to develop novel ideas such as overlaying 4D BIM models on top of time-lapses for an AR experience. ■



Product Name: GTL-1000
Company: Topcon Positioning Ireland

The latest innovation from Topcon is completely transforming the vertical construction verification process.

The GTL-1000 completes a full new vertical construction workflow that is simple to execute for site engineers, reduces project time, material use and cost while also making the construction process quicker. ■



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Constructing the BIM Team

In-house BIM expertise is critical to the work of top Irish contractors. Digital Built Consultants Managing Director and Cita Board Member Emma Hayes describes to Irish building magazine the changes she has witnessed within contractors' organisations over the past 10 years and what is needed to overcome the challenges to building in-house BIM expertise.

CITA HAS developed its Board over the past few years, with people who bring vast expertise from industry and academia. Throughout 2020 we will bring Irish building magazine readers interviews with members of the Cita Board. In this issue, we talk with consultant, industry expert, academic and ICE Awards Judge Emma Hayes about developing a BIM team within contractors' organisations.

Emma Hayes is Managing Director of Digital Built Consultants, a leading BIM and Digital Information Management consultancy firm. A Chartered Architectural Technologist, Emma holds a BSc in Architectural Technology from Technological University Dublin and an MSc in BIM Management from Middlesex University.

Based close to Dublin, Digital Built Consultants supports and guides clients from the Architectural, Engineering, Construction and Owner-Operated (AECO) industry throughout their digital transition and BIM adoption journey. Services provided include strategy, change management, training, project execution and management.

Emma has over 20 years' experience in the AEC industry in Ireland and internationally. Prior to establishing her business, Emma was the Group BIM Manager with the

project delivery specialists, PM Group. She was responsible for the development and implementation of the Group BIM strategy and roll-out of procedures and workflows for BIM adoption across the organisation's network of offices in Europe, Asia and the US.

Industry work aside, Emma is a part-time lecturer on the Middlesex University BIM Management MSc programme and on the Technological University Dublin MSc in Applied BIM and Management programme. Emma has presented research papers at international conferences such as the Cita BIM Gathering, and is a Board Member of the Construction IT Alliance (Cita) as a non-executive director since 2018. With this great wealth of experience, Emma has witnessed great changes in contractors' operations over the past 10 years with the development of in-house expertise.

Emma says Irish contractors' Digital Construction portfolios are impressive, with many getting international work, clients' praise and awards for major projects. However, there are different levels of capability in Irish construction with some Tier 2 contractors and SMEs outsourcing BIM expertise as they have not yet developed their in-house BIM team. "Many big contractors have developed reputations



Emma Hayes,
Digital Built Consultants MD
and Cita Board Member

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internationally for their BIM expertise; delivering projects throughout Europe and in the Middle East and Africa. However, there are others working with BIM on projects and outsourcing this to consultants while looking to develop in-house BIM skills.” Emma describes to us the challenges and means of developing in-house BIM expertise.

CHALLENGES

Emma remembers 10 years ago, it was mainly large multidiscipline engineering firms and Irish Tier 1 contractors who were developing BIM teams and implementing BIM on projects. Over the past few years this culture has filtered down to Tier 2 contractors and subcontractors. Subcontractors are now developing in-house teams and becoming international MEP and specialist leaders in Digital Construction. However, there are significant challenges, the primary one being skills. Upskilling an entire industry to a new way of working is a major task but the Irish construction industry has been supported by third-level colleges across the country.

Emma identifies the challenge and provides her own university as an example of how Irish colleges are meeting the requirements of industry. “The challenges of the skills shortage are significant. But this is being dealt with by increasing the number of university courses. For example the MSc in Applied BIM and Management at Technological University Dublin and their recently launched BSc (Hons) in BIM (Digital Construction) which is a one-year part-time

re-skilling programme offers education and training routes for people who are working.” Aside from the skills challenge, strategy implementation can be difficult.

Implementing a Digital Construction strategy is difficult and this has been an issue for SMEs over the past few years. “Smaller companies are being asked to adopt BIM. Many do not have a BIM adoption and implementation strategy which is critical to the success of rolling out Digital Construction processes in organisations and on projects. Maybe if you do not have a strategy the best thing to do is work with a third-party BIM consultant. A consultant can engage with your in-house teams with an initial gap analysis workshop where they get an understanding of your business goals, existing workflows and processes, staff capability and organisational culture. From the findings in the workshop the consultant will analyse your BIM knowledge and adoption gaps and will prepare a strategic customised roadmap for BIM implementation in your organisation taking into consideration your business goals to ensure they align the BIM strategy. The roadmap also considers existing processes and organisational culture to ensure a smooth implementation process using short, medium and long-term goals. A medium-term goal would be to buy software, e.g. Revit or Navisworks, and to train people using this and to then roll it out across the organisation with training; a long-term goal might be to develop further BIM processes such as 4D and 5D workflows.”

“The challenges of the skills shortage are significant. But this is being dealt with by increasing the number of university courses.”



Sharing knowledge with students during the Multidisciplinary Collaboration Project module on the MSc aBIMM course at TU Dublin



Emma delivering a keynote on Women in BIM at the National Construction Summit 2019

ENTERPRISE IRELAND

Starting on new processes and dealing with the change within an organisation can be difficult. BIM adoption takes time and money and this is difficult while working to complete projects and trying to win more work. Talking of support for companies, Emma says Enterprise Ireland offers great support for companies selling services abroad. “A lot of contractors exporting services outside of Ireland are Enterprise Ireland clients and have availed of the BIM Enable grant. Enterprise Ireland will fund a BIM consultant to work with their organisation and do the gap analysis and develop a BIM Implementation roadmap. There is a second round of funding called BIM Implement where Enterprise Ireland fund a third-party BIM trainer to provide training with BIM tools and support with the implementation of BIM within the contractor’s organisation.” There is a lot of support to develop the BIM strategy she states; this is critical.

Without a BIM strategy, Emma stresses you are setting yourself up to fail. “Contractors may end up spending money on software that wasn’t appropriate for the business or spending time and money on outside expertise and modelling services. A BIM consultant can provide experienced guidance and support for a smooth transition to BIM and Digital Construction and this will save you money in the long-run.”

There is a big difference in developing a BIM team with a company turnover of several

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Panel discussion on Digital Construction at the Construction Management Summit 2019

hundred million and developing a team with a turnover of €10m to €20m. Enterprise Ireland can be a key source of support for small companies. “For SMEs having a strategy is more important due to their more limited resources and they do not have the number of people in-house that those on the top tiers would. Enterprise Ireland funding is critical for SMEs as this gives them access to BIM consultants.”

There are also differences between main contractors and MEP and other specialist contractors as their roles are different on BIM projects. “Main contractors generally manage the information generated by the supply chain, managing the Common Data Environment and ensuring that the BIM Execution Plan (BEP) is being followed. They are often not generating the information themselves. MEP contractors and other specialists are authoring both graphical information and non-graphical asset information, throughout the construction and handover stages. Coordination is key for MEP contractors. They are avoiding clashes with other specialists and with civil, structural and architectural models etc. One of their key tasks is to complete the development of the asset information before handover. There are different emphasises with regards to tools and training of staff.”

“Enterprise Ireland will only approve BIM Enable and Implement funding with Enterprise Ireland pre-qualified and approved BIM consultants.”

OUTSOURCING

Since starting her business two years ago, Emma has seen subcontractors outsourcing BIM skills to BIM consultancies. “These contractors do not have an in-house strategy. They are asked to implement BIM on projects but do not have the staff capabilities.” Emma’s company offers contractors skills support on projects and helps them grow and develop in-house capabilities. She emphasises the importance of selecting a BIM consultant with construction experience along with a proven track record in BIM adoption and implementation. “Enterprise Ireland will only approve BIM Enable and Implement funding with Enterprise Ireland pre-qualified and approved BIM consultants. If you can’t avail of EI funding, still engage with reputable consultants with experience as it will save money over time.”

Emma says in the near future all contractors should have the expertise within their organisation and be agile to technological change. “In the next decade I hope all contractors will have in-house capabilities to collaborate on-site with BIM processes and workflows which will improve project delivery and add value to the client.” It is presently very disjointed on BIM projects she explains where not all stakeholders have the capabilities. “There are gaps in collaboration between the project team and also with handover to the client.”

Asked where contractors should go for guidance and advice she says, “Go to CitA events in your region and attend the breakfast meetings in Dublin if you can or attend online. CitA is a key resource for a company or person in the Irish construction industry who wants to learn more about Digital Construction or to seek independent advice, and/or to progress on their BIM journey. I recommend attending the CitA Digital Transformation Series, the CitA Tech Trend Series and I also recommend attending the regional roadshow events.”

CitA is working with international organisations and has international contacts in industry and academia that gives members up-to-date knowledge Emma explains. “In CitA we are trying to become the single source of truth for BIM and Digital Construction in Ireland. We are building alliances with other organisations like BRE and the NBS so we can provide information for the Irish construction industry on tools, training, standards and expertise. Through Skillnet CitA provides courses and training to meet members’ needs.” If readers are interested in learning more on Digital Construction topics, there are a number of upcoming events in March, April and May, and this year the regions will be very active.

CITA UPDATE

Dr Alan Hore outlines to us CitA’s objectives for 2020. “In 2020, CitA seeks to broaden the reach of the organisation and promote the benefits of membership of CitA and spread the message across the regions by embarking on our busiest regional event programme since CitA was formed over 20 years ago.”

This year with a focus on offsite, CitA will highlight the importance of Modern Methods of Construction given the challenge our industry faces in regard to the shortage of skilled people and our housing crisis. CitA is offering support to companies through CitA Skillnet industry-led training throughout Ireland.

Alan says the organisation is embarking on two research initiatives in collaboration with Trinity College Dublin in respect to:

- Documenting BIM research in Ireland’s Higher Education Institutions over the past three years throughout Ireland.
- Investigating the readiness of the Irish construction industry to prepare for the Irish Government BIM mandate. ■

There are many CitA events planned from March to June.

Dublin Events:

Dublin: 4 March (8:15 am - 10:30 am), CitA Technology Trend Event, Bank of Ireland Workbench, Dublin.

Dublin: 10 March (8:45 am - 11:30 am), CitA Digital Transformation Series, Wood Quay Venue, Dublin.

Dublin: 22 April (8:45 am - 11:30 am), CitA Digital Transformation Series, Wood Quay Venue, Dublin.

Regional Events:

Galway: 25 March (morning event), Bank of Ireland Workbench, 22 Mainguard Street (1st Floor), Galway.

Sligo: 25 March (afternoon event), Sligo IT.

Athlone: 26 March (morning event), Radisson Blu Hotel, North Gate Street, Athlone.

Dundalk: 12 May (morning event), Venue TBC.

Belfast: 12 May (afternoon event), Venue TBC.

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- EDUCATION • RESIDENTIAL • CIVIL ENGINEERING
- COMMERCIAL • FINANCIAL • INDUSTRIAL

Our belief has always been to deliver a high quality
service and build on time and as cost-effectively
as possible. This desire for quality has seen us
employ a dedicated programme of re-investment in
our people, systems and processes ensuring we
deliver the most on time and cost effective solutions.

*High quality service,
cost-effective and on time*



EcoMerit
certified company



Building the present, creating the future

Mullingar Courthouse
Courts Bundle Public Private
Partnership Project

BAM Ireland, finalist in seven categories
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**Irish Construction
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