

Engineering Sustainable Futures

Environmental, Social and Governance Report

Diversity



www.dbfl.ie

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MD Update

Dan Reillv Managing Director

At DBFL we take pride in delivering engineering excellence while placing environmental and social responsibility at the heart of our work. Over the past year, we've continued to build on these core values strengthening our commitment to sustainability, inclusivity, and the wellbeing of our people and communities. Our Mission is **Engineering Sustainable Futures.** Engineering Sustainable Futures will be part of everything we do, for our clients, our staff and the environment we live in.

Our teams across the company have embraced the opportunity to lead with purpose, advancing low-carbon resilient infrastructure, supporting inclusive workplace initiatives and contributing to projects that shape vibrant sustainable places. We've also expanded our internal company structures, including the establishment of committees focused on Equity, Diversity & Inclusion (ED&I), Health & Safety, MMC, Technology and Sustainability, ensuring these principles are embedded in how we think, design, and deliver.

This collaborative approach has positioned DBFL as a leader in sustainability, technology, wellness, diversity, and cultural awareness. We've created an environment where our people can thrive and where our values are reflected not only in our projects, but in our everyday practices. In doing so, we continue to strengthen our position as a forward-looking, trusted engineering partner and one ready to meet the evolving challenges of our sector. As we look to the future, we remain committed to responsible growth, technical excellence, and delivering positive impact for clients, communities, and the environment alike.

Engineering excellence with purpose

Focused on the future.

Built on expertise. Driven by values.

Our Organisation & Our Approach



EngineeringSustainableFutures



DBFL Story

DBFL Consulting Engineers was founded in 1987 by Paddy Darling, Ron Battye, Paul Forde and Jim Lawler. The company saw expansion in the 1990s and into 2000s establishing itself as a reliable engineering partner across a large number of sectors.

The company showed its sustainability credentials early on providing civil and structural engineering consultancy services on The Green Building in Temple Bar. Built in 1994 The Green Building illustrated how environmentallyfriendly buildings can help us to achieve sustainable urban areas and was an early adopter of solar power for electricity and hot water, along with a geothermal heat pump.

DBFL's portfolio expanded and the scale of the projects also grew, with structural projects such as the landmark Criminal Courts of Justice in Dublin becoming part of the company's legacy to Dublin city. This courts complex was completed at the end of 2009 and is now a well-known sight on the city-centre skyline. Other additions to the Dublin skyline from DBFL's portfolio include Alto Vetro, the stunning, 17-storey tower in the Grand Canal Basin in Dublin and more recently the complete re-development of Central Plaza on Dame Street and conservation of Primark Belfast following an extensive fire in 2018.

As early adaptors of sustainable nature-based drainage solutions on developments, our civil and infrastructure division has continued to develop and expand its expertise in recent years and our teams now service a number of clients in the marine, aviation and data centre sector, including two of the country's crucial infrastructure access points at Dublin Port and Rosslare Europort, as well Dublin Airport Authority, Waterways Ireland and Uisce Eireann.

DBFL is now one of the leading providers of sustainable transportation engineering consultancy advice in the country and boasts a dedicated

transport planning team offering a complete transportation service to our clients. As part of its growth strategy, DBFL has opened regional offices in Waterford, Cork and Galway, allowing us to better serve our clients across the entire country. As we have developed and progressed our workforce, we have been delighted to expand our client base which sees us now working with public bodies, local authorities, large-scale developers and collaborations with contractors through Public Private Partnerships and Design Build projects.

Our Approach

DBFL has outlined a clear and strategic path to foster growth, development, and the delivery of a sustainable, successful business for both our staff and clients. In order to achieve our vision, we have empowered staff within the company, to develop and implement the topics central to DBFL's core values.

This collaborative approach has positioned DBFL as a leader in Diversity, Wellness, Sustainability, and Cultural richness, while also fostering an environment where staff can achieve their full potential. By cultivating this ethos, we continue to strengthen our reputation as a winning, future fit organisation.





Environmental Timeline / Highlights



Sustainable Development Goals

Guided by the United Nations Sustainable Development Goals (SDGs). The SDGs provide a globally accepted strategic framework, philosophy and plan of action to address the environmental, social and economic dimensions of sustainable development. Across our operations we have the potential to positively impact upon a number of these goals. Section 9 of this report outlines the specific SDGs targeted by each ESG initiative outlined in this report.









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Wellness

At DBFL, we understand that the wellbeing of our employees is crucial and we are committed to fostering a positive work environment where individuals can thrive both personally and professionally.

Key Pillars of Wellness at DBFL

Physical Health

At DBFL, we encourage employees to maintain a healthy lifestyle through our walking, running, hiking and cycling initiatives, as well as financially supporting our teams who participate in other sports, eg tag rugby and soccer. Wellness facilities and nutrition advice is also available through our Employee Assistance Program (EAP). 2025 sees the launch of an extensive health screening programme to all staff across the organisation.

Mental and Emotional Well Being

Mental health is just as important as physical health. Through our Employee Assistance Programme available to all staff, we offer resources such as counselling services, mindfulness workshops and other information talks throughout the year to support our employees in managing any levels of stress, anxiety, and other personal issues as they arise.

Flexibility

The introduction of a successful hybrid work model reflects our commitment to flexibility for our employees. Through this hybrid model we allow our employees to manage their professional and personal lives in a way that helps them maintain a healthy work-life balance.

Office Environment

Whilst we do offer a hybrid model, when our employees are in-person at our offices we want to make sure they enjoy an attractive, comfortable and safe working environment. We have invested in significant upgrades to each of our office locations in recent years, providing attractive interiors combined with modern collaborative working spaces equipped with the latest communication technology to help create a productive atmosphere where our employees can thrive and achieve their full potential.

Personal and Professional Growth

Personal development is an essential component of our business at DBFL.



We provide opportunities for employees to learn, grow, and advance their careers through training programs and mentorship opportunities. By fostering a culture of continuous improvement, we not only enhance individual skills but also contribute to the overall success of the organisation.

Social Events

DBFL employees benefit from a wide range of social events and activities throughout the year, including Hikes, Greenway Cycles, Quizes, Tag Rugby, 5-A-Side Football, Staff Relay Run, Footgolf, Pool Tournaments, Bake Off Competition, Corporate Massages, Coffee Mornings, Bike Maintenance Days, Dragons At The Docks, Geocaching, Go Karting, Escape Rooms and more In Essence, there's always something happening!

Looking Ahead

At DBFL, the health and well-being of our employees will always remain a top priority. As we continue to grow and evolve, we are committed to listening to the needs of our staff and developing our wellness initiatives as appropriate, exploring new ways to support our employees to help them lead healthier, more fulfilling lives.















Equity, Diversity & Inclusion (ED&I)

At DBFL, we are passionately committed to creating a workplace where every individual is valued, respected, and given the opportunity to excel. Our ED&I strategy is a key facet of our corporate philosophy and is led by our leadership team, ensuring these values are woven into all aspects of our business.

Key Achievements and Initiatives

Over the past year, DBFL has made substantial progress in enhancing our ED&I framework. Key achievements include:

- DBFL was awarded Silver Accreditation with the Irish Centre for Diversity in 2021 and in 2025 was awarded the prestigious Gold Investors in Diversity standard from the Irish Centre for Diversity.
- Christina Haney, a valued member of our ED&I team, was honoured with the Employee of the Year award at the National Diversity & Inclusion Awards 2024, recognising her exceptional contributions to fostering an inclusive workplace both at DBFL and publicly.
- We have introduced training sessions for all employees to enhance their understanding of ED&I issues and equip them with the skills to contribute to a more inclusive workplace.
- These voluntary, employee-led groups aim to foster a supportive environment for underrepresented communities within DBFL. At present we have a Women's Network and a Cultural Network focusing on raising awareness about gender diversity issues, celebrating cultural heritage, and offering everyone in the company opportunities to learn more about each other.
- For the first time, we dedicated the entire month of July to Disability Pride Month, organising events and activities to celebrate and raise awareness about the contributions and rights of people with disabilities. This included undertaking an Accessibility Audit. In our commitment to ensuring a welcoming environment for all, the accessibility audit of our headquarters through an external third party has enabled us to identify



potential areas for improvement to support employees, clients and visitors with disabilities.

- DBFL proudly achieved an 85% Inclusion Score in the latest report by the Irish Centre for Diversity, significantly above the national benchmark of 78% and the engineering industry average of 79.5%.
- Signing the Association of Consulting Engineers of Ireland (ACEI) Diversity & Inclusion Charter: We have reaffirmed our commitment to promoting equality and embracing diversity by signing the ACEI Diversity & Inclusion Charter, aligning our goals with industry standards and promoting inclusive practices.

ED&I Focus Areas

To ensure our ED&I strategy is comprehensive and impactful, we focus on the following key areas:

- Education and Cultural Awareness: We strive to build a culture of inclusion through continuous learning, awareness and engagement. This includes workshops, seminars, and internal communication to promote ED&I awareness.
- Inclusive Hiring and Development: We embed ED&I principles into our hiring, onboarding, and professional growth processes. This ensures that we attract, retain, and nurture a diverse workforce that mirrors the communities we serve.
- Governance and Accountability: We have established a robust framework to measure and report on our ED&I progress. This includes regular



reporting on diversity metrics, setting clear targets, and maintaining transparency in our initiatives.

To support our ED&I initiatives, DBFL has implemented key policies including:

- A Comprehensive ED&I Policy: Our established policy outlines our commitment to diversity, equity and inclusion, that promotes a diverse workforce, and an inclusive workplace.
- Dignity at Work Policy: Promotes a positive, respectful work environment free from discrimination, harassment, and bullying.

Future Commitments

- Expanding our ED&I training programmes.
- Enhancing our recruitment strategies to attract a more diverse talent pool.
- Implementing more robust metrics to track our progress and hold ourselves accountable.

At DBFL, we believe that equity, diversity and inclusion are not just initiatives but integral parts of our identity as a company. By embracing these principles, we aim to create a workplace where everyone can thrive and contribute to our collective success.

Gender Pay Gap Report

In December 2024 DBFL published our first Gender Pay Gap Report. Key findings included:

- At the time of the report, the company was made up of 76% males (165 employees) and 24% females (52 employees).
- Our gender representation at 24% females is above the national average. CSO reporting for 2023 recorded 14% female employees in the sector.
- Our Mean Gender Pay Gap at 21% is broadly in line with similar sized companies in the construction and engineering sectors

Full findings and details are available in the published report on the DBFL website.





Training

Engineers Ireland Accredited CPD Employer

DBFL are proud of our Engineers Ireland CPD accreditation which recognises our commitment to CPD under this best-practice framework for engineering employers. At DBFL we support CPD through a range of structured programs across all levels and disciplines within the organisation.

Graduate Development Programme

DBFL's Graduate Development Programme is specifically designed to support the growth of our graduates to Chartership status. Upon entering the programme, individuals are immersed in a dynamic, supportive, and collaborative environment that encourages learning and excellence. Hands-on experience is gained through a range of exciting projects, and a structured training programme is provided, including mentorship, internal training sessions, educational site visits, external workshops, and selfdirected learning opportunities. This comprehensive approach ensures the development of the skills and competencies necessary to thrive as their engineering career progresses.

Post Chartered Mentorship

Taking cognisance of the emphasis placed on mentoring in the Graduate Development Programme, DBFL have introduced a Mentoring Beyond Chartership programme to help Chartered Engineers and Planners attain some of the necessary skills to progress to the next chapter of their careers. Participation in the programme is voluntary and the focus is on informal meetings between the mentee and mentor on non-technical topics.

DBFL Apprentice Programme Development Initiative

In November 2023, DBFL established an Apprenticeship Programme to align with Atlantic Technological University (ATU) programme and the National Apprenticeship Programme. DBFL recognised the need to support this much-needed route to becoming a professionally accredited, internationally recognised Civil Engineer. The programme provides a way to "earn and learn" and help attract more young people into the industry where the financial constraints of full-time education would have previously been prohibitive. Apprentices are trained and assessed both on and off the job with the support of their industry mentor. DBFL are currently supporting a number of apprentices through the programme and on successful completion of the programme, the apprentices will have gained the educational base



for professional registration with Engineers Ireland at either Technician or Associate Engineer level.

Leadership programme

DBFL introduced a Leadership Training Programme in 2022, to develop and refine our team leaders' personal leadership skills and abilities and to empower them to master DBFL business leadership strategies, navigate organisational change and inspire their team members. A number of projects were undertaken as part of the programme that enhanced the business development of DBFL and the participants.

Knowledge sharing:

An essential part of DBFLs approach to CPD is our Knowledge Sharing Sessions. For these sessions, we ask all our teams to present a topic of their choice. They are focused on lessons learned and all team members are encouraged to get involved, as this helps develop the communication skills of our younger engineers and planners. The presentations are typically on innovative design topics, new technologies, lessons learned on projects, specialist topics and products and workflows.

Further Education:

DBFL support staff in their pursuit of further education by encouraging staff to undertake post graduate studies in specialist topics. This ensures our engineers and planners are given the opportunity to learn and grow their career and knowledge by undertaking further research and education.



Community Engagement

DBFL prioritises making a positive impact on local communities near its offices and in every community we interact with. The company emphasises community engagement through charity fundraising, partnerships with disadvantaged schools and organisations, volunteering, raising awareness, and our project work.

Charity Contributions and Partnerhips

DBFL have partnered with a number of local disadvantaged schools providing items ranging from selection boxes and easter eggs around the holidays to providing maths supplies and sponsoring an Autistic Room in two local schools. Our partnership currently includes 5 schools across Dublin and a local schools in Cork and Waterford.

A member of DBFL following a recent visit to a partner school noted

"It was clear that the donation has not only enhanced their educational experience but has also sparked a sense of curiosity in their minds."

























DBFL sponsor a number of local sports clubs including:

- Ashford GAA
- Two Mile House GAA
- Raheny GAA
- Broadford Rovers Soccer Club
- Dunboyne Boxing Club

Other charity fundraisers include:

- Bewleys coffee morning in support of hospices local to our offices
- Sleep out in support of Focus Ireland
- Breast Cancer Awareness Pins
- Jersey Day in Support of GOAL
- Christmas Jumper Day in support of St Vincent de Paul
- Coffee Morning in support of Womans Aid



Impact of Projects on the Community

DBFL deliver projects in the Built Environment and Transportation sector and thus our work directly impacts the local communities. Early community engagement and a lasting net positive community impact are fundamental to all project work undertaken by DBFL.

An example of recent projects carried by DBFL out that involved, engaged and positively impacted our local communities was our work in Cork City.

A number of public consultation events with local businesses, residents, community groups and the wider public were undertaken as part of the Cook Street, Marlboro Street, Princes Street, Grafton Street, and Rochford's Lane Renewal Scheme.

These events gave local businesses and residents the opportunity to have a say in what they would like to see in the scheme proposals as well as air their concerns, all informing the eventual scheme proposals. The engagement included the following:

- An Online Survey ran for approximately 8-weeks and received over 500 responses. This provided an opportunity to receive the views of the wider community and people of Cork City.
- Stakeholder Focus Group Walkabouts included face-to-face engagement with a variety of groups, including accessibility groups, Cork Healthy City, HSE Cork Drug Taskforce, Cork City Council departments, (Cork City Centre Coordinator, Night-Time Economy Officer, Conservation Officer, Biodiversity Officer, Acting Senior Parks and Landscape Office and the Fire & Building Control Department).
- A Pop-Up Play Street organised with Cork Healthy City and Let's Play Cork as part of the Cork Lifelong Learning Festival created a safe space for children, young people and families to express their own views and experiences on the streets.
- Cork City Council and Cork Healthy City collaborated with Public Health Scotland to deliver a training session to approximately 70 professionals from varying backgrounds around Cork City on the Place Standard Tool. This is a user-friendly tool used to structure conversations about

a place, with 5 categories split into 14 themes ranging from 'Play and Recreation,' 'Feeling Safe' and 'Moving Around' to 'Social Interaction,' Care and Maintenance' and 'Natural Space.' The facilitators and attendees of the training session used the tool to assess the Scheme Area and identify priority recommendations. The tool was later used in the Concept Development and Options Selection Process to help assess each proposed option.

Business and Residents Workshops were held in the YMCA on one of the Project Streets. 16 people participated in a World Café Style workshop, and a concurrent drop-in session was attended by over 50 participants over the course of the day. The issues and suggestions raised during the workshops and drop-in sessions has helped to form an evidence base for the development of concepts and options selection.





Third Level Engagement

DBFL are actively involved with a number of third level institutions and take part in guest lectures and collaboration with projects in the interest of providing practical insight into the application of knowledge students are receiving within their third level course.

DBFL have been participants at Construct Innovate which was hosted by University College Dublin, School of Civil Engineering where DBFL representatives took part in workshops, working group sessions, presentations, networking and more. As one of the inaugural members of Construct Innovate, we look forward to continuing this important work collaborating on digital adoption, modern methods of construction and sustainability across our industry.



DBFL presented to University College Cork Meng and Postgraduate students on campus. The presenters took students through DBFL's recent marine / ports and bridge engineering experience.

Members of the DBFL Transport Planning Team presented at the University College Cork Planning Conference including a presentation on 'Compact Development'. At the same event a member of DBFL took part in an expert panel session. The team highlighted DBFL's capabilities across a range of relevant skills including GIS, development of sustainable transport networks and engagement.

DBFL staff collaborate with third level institutes including University College Dublin and University College Cork by way of providing guidance and industry perspective to the students on an ongoing basis to assist them with their projects.

DBFL staff act in guest lecturing positions to a number of third level institutes including Trinity College Dublin, University College Dublin, University of Galway, Technical University Dublin and University College Cork.





Our Environmental Impact



Overview of Impact as Engineers

DBFL engineers and planners play a critical role in shaping the built environment, contributing significantly to the creation of a more sustainable future. The shift toward low-carbon construction materials, maximising resource reuse, minimising waste, and encouraging recycling helps mitigate the effects of climate change. Through the application of innovative, resourceefficient, and low-carbon solutions, DBFL can help reduce environmental impacts while building infrastructure that supports sustainable growth.

Civil Engineering

The engineers in DBFL are involved in the planning, design, construction of infrastructure projects, such as roads, bridges and ports along with residential and commercial projects. Their work offers numerous positive environmental contributions.

Sustainable Infrastructure

We incorporate environmentally friendly materials into our infrastructure design and where possible encourage the reuse of on site soils and aggregates to reduce waste and the embodied carbon of our designs.

Water Conservation and Management

DBFL engineers design and implement rainwater harvesting systems and Sustainable Drainage Systems (SuDs), which help conserve water resources. Our design approach focuses on replicating the natural drainage regime while ensuring robust and maintainable systems for our clients and future generations. Green Roads and Pavements: The use of permeable pavements, reduces runoff, and improves water infiltration. These features contribute to more sustainable and resilient infratructure.

Waste Management and Pollution Reduction

DBFL engineers design systems to manage and treat stormwater, reducing runoff and water pollution. They also help in waste recycling and waste-to-energy initiatives.





Carbon Footprint Reduction

Structural Engineering

Structural engineers in DBFL are responsible for ensuring the safety, stability, and sustainability of buildings, bridges, and other structures. Their work promotes environmental benefits through the use of advanced materials and innovative design solutions.

Material Optimisation

Sustainable Materials: The structural engineers are increasingly opting for sustainable building materials, such as recycled steel and low-carbon concrete alternatives. This reduces the carbon footprint associated with traditional construction materials. Life Cycle Assessment: By considering the environmental impact of materials over the full life cycle of a structure (from sourcing to disposal), DBFL's structural engineers can significantly reduce the ecological footprint of construction projects.

Adaptive Reuse and Longevity

Repurposing Existing Structures: Instead of demolishing old buildings, the structural engineers often work on retrofitting and repurposing structures, extending their useful life (Central Plaza Dublin). This reduces the need for new construction, conserving resources and minimising waste.

Designing for Longevity

Designing structures that last longer with fewer maintenance needs reduces the frequency of repairs and reconstruction, lowering overall resource consumption.

Traffic & Transportation Engineering

The traffic and transportation engineers and planners in DBFL focus on creating efficient, sustainable, and safe transportation systems. Their work contributes to reducing congestion, improving air quality, and enhancing the efficiency of urban mobility.

Promoting Sustainable Transportation

Public Transport Network: The development and optimisation of public transport (buses, rail, light rail) reduce the need for private vehicles, cutting down on traffic congestion, air pollution, and carbon emissions.

Walking and Cycling Infrastructure (Active Travel Schemes)

Designing pedestrian-friendly streets and cycling infrastructure encourages

alternative modes of transportation that are not only healthier for individuals but also reduce the environmental impact of transportation.

Smart Traffic Systems

Traffic Flow Optimisation: Engineers design intelligent traffic management systems that optimise traffic flow and reduce traffic congestion, leading to more efficient fuel use and lower emissions from vehicles.

Electric Vehicles (EVs)

Supporting the transition to electric vehicles reduces reliance on fossil fuels and helps lower greenhouse gas emissions in urban transportation systems.

Sustainable Infrastructure Design

Designing transportation systems that connect various modes of transit (walking, cycling, buses, trains) encourages sustainable travel behaviour and reduces dependency on cars.





Case Study: Deansgrange Cycle Scheme

The Deansgrange Cycle Scheme is a sustainable urban design focused on active travel, environmental conservation, and heritage preservation. Key features and sustainability initiatives of the scheme include:

High-Quality Walking and Cycling Infrastructure: The scheme offers dedicated facilities for walking and cycling along Kill Lane and Deansgrange Road, promoting healthier lifestyles and reducing reliance on private vehicles.

Connecting Major Active Travel Routes: It connects two larger active travel routes within the DLRCC Active Travel Schemes:

- Park to Park Route: Links Blackrock to the Deansgrange Greenway.
- Mountains to Metals Route: Links Sandyford to Dalkey. These connections create a cohesive sustainable transport network.

Repurposing Deansgrange Road: The road has been upgraded to prioritise active travel and public transport, including the removal of car parking in favour of a segregated cycle track, improved bus stops, and safer crossings.

Promoting Sustainable Mobility: The project encourages walking and cycling, contributing to reduced carbon emissions, traffic congestion, and a shift towards environmentally friendly transport.

Heritage Conservation and Circular Economy: The project integrates circular economy principles by reusing materials, such as preserving the footpaths and stonework at Deansgrange Cemetery, minimizing construction impact, and preserving heritage.

Environmental and Social Impact: The scheme reduces fossil fuel dependence, creates a healthier urban space, and revitalises the cemetery area, improving accessibility and attracting more visitors.

Key Sustainability Outcomes:

Active Travel Promotion: Encourages walking and cycling, supporting healthier lifestyles.

Carbon Reduction: Reduces emissions by repurposing space and reusing materials.

Heritage Preservation: Maintains the historical character of the cemetery and surrounding areas.

Overall, the Deansgrange Cycle Scheme exemplifies how urban infrastructure can enhance sustainability, promote community engagement, and respect environmental and cultural values, while improving public health and mobility.





Case Study: Central Plaza



Adaptive Re-Use of a City Icon

At DBFL we frequently work on conservation and heritage projects, so it was a privilege to be given the opportunity by our Client Hines, to work on the refurbishment, re-purposing, and re-use of one of Dublin's most recognised landmark buildings, One Central Plaza.

Design Brief

One Central Plaza is a dramatic building. The 1970's structure is eight storeys high, uniquely suspended from an innovative roof structure using twelve sets of Macalloy tension bars. The building has a double basement over the entire site. The project involved the complete repurposing and structural refurbishment of all building levels, including the repurposing of the roof area to deliver a glass-topped space affording panoramic views over the city.

Sustainability

At DBFL we want to reduce our environmental impact. Embracing adaptive re-use and refurbishment offers a sustainable approach to construction. In

line with Hines' vision for minimising environmental impact and preserving the architectural heritage of the city, DBFL have had a unique opportunity to breathe a new life into an iconic building in the heart of the city.

Circular economy principles were implemented throughout our investigation, assessment, refurbishment, and protecting of the critical hanging tension rods and nodes at each level. Plant risers, lift shafts, stairs and staff facilities housed within the cores were completely modified to deliver the needs of a modern office. To preserve the character of the building and to maintain office floor space, the existing cores were retained with interventions kept to a minimum. The result is a saving of approximately 10,000 tonnes of embodied carbon.

The re-design of the public plaza, along with new retail, leisure and dining spaces engages the public and re-establishes the building in its urban context. The positive impact of the new design at street level is profound.

Conservation

Retaining the existing building fabric to reduce time, cost and environmental impact was central to DBFL's design philosophy. A full assessment and refurbishment of the building's hanging truss and bars system was performed to extend their design life. The two-storey basement car park was partly repurposed to house building plant previously located in the roof space. Car parking now accessed by car-lift was redesigned at the lower basement.

Modern Use

Collaboration between the Design Team, Contractors and Specialist Service providers has successfully resulted in a modern Grade A building, proudly achieving LEED Gold status. At DBFL, innovative thinking and a detailed understanding of the challenges and complexities of the project allowed us to contribute to reducing the environmental impact of One Central Plaza and expand our experience in forward-thinking adaptive re-use and refurbishment of the built environment.



Case Study: Clonburris SUDS



Project Overview

Clonburris is an exciting new Sustainably Built neighbourhood in Dublin. It involves the development of a major new town on a greenfield site with a population target of over 20,000 people. The Clonburris SDZ is an exemplar in sustainable community development which puts Nature Based Solutions at its heart.

DBFL have been extensively involved in the development, both in the design and delivery of key shared infrastructure for the new town, and as

part of the design team for the individual development cells. DBFL also prepared the overall Surface Water Management Plan for the SDZ which established overall catchments and the design of Regional SuDS features. It also identified SuDS Objectives and Requirements for individual sites.

The Challenges

Over 70,000m³ of regional attenuation will be provided for the SDZ, primarily via regional ponds. These measures ensure the pre-development greenfield runoff characteristics can be maintained to avoid an impact on downstream flood risk. DBFL, working with a multidisciplinary design team including Landscape Architects and Ecologists, have designed the attenuation features to be carefully integrated into the Open Space and Parkland Network.

The regional features have been designed to achieve benefits in each of the Four Pillars of Suds. In addition to managing Water Quantity to reduce flood risk, they improve Water Quality and also delivering Amenity and Biodiversity Benefits.

The Sustainable Initiatives

At a site level within the development cells, Nature based SuDS have been incorporated into each streetscape to replicate natural drainage processes. Rainwater runoff from hard surfaces are directed to SuDS features such as Rain gardens, Bioretention areas, Filter strips and Tree Pits.

Hard surfacing is eliminated where possible through the use of permeable and vegetated surfacing and the use of green roofs. These elements create a dynamic mosaic of habitats within the development creating substantial Biodiversity and Amenity benefits. The SuDS measures control surface water at source to reduce the volume and intensity of rainfall entering drainage networks. Furthermore they support filtration of pollutants from runoff, recharge of groundwater via infiltration and provide increased climate resilience. The use off vegetated features at surface also offsets traditional piped systems which greatly reduced the embodied carbon.



Case Study: Two Grand Parade



The adaptive re-use and refurbishment of existing structures is a trend gaining popularity in the Irish construction market. DBFL has in-depth experience in this sector and were pleased to be given the opportunity by Hines to work on the Two Grand Parade Project which involved the upgrade and refurbishment of an existing protected structure along with the construction a new 6-storey building.

Two Grand Parade is a 9,600 m2 commercial development which included six storeys of new prime office space over a single level basement. The new steel framed building is linked via a glass atrium to the iconic 8-storey former headquarters of PJ Carrolls which overlooks the Charlemont Luas Stop and the Grand Canal in Dublin.

The existing structure, constructed in 1962, had exceeded its original design life. Hines sought to extend the life of the structure rather than demolish and re-build, and thus saved thousands of tonnes of embodied carbon emissions. The structure was assessed, analysed, restored and upgraded to meet all the standards of a modern office building with LEED Platinum status and BER A3 targeted for the scheme.

Various investigations were conducted during the assessment of the existing structure to determine what restoration measures were required. This included a visual inspection of the main structural elements, cover meter surveys and the cutting of several concrete cores which underwent chemical tests to detect signs of degradation.

Following the assessment, selected structural elements were then restored and upgraded. Stiffening elements were added to the steel beams to facilitate new openings and allow the efficient integration of services. The steel beams were sandblasted to remove any damage and defects to the steelwork along with receiving a coat of intumescent paint. The soffit of the concrete floor slabs were sandblasted and treated with an anti-carbonation coating. Additional structural elements were introduced in localized areas to accommodate service requirements for a modern office building. The existing stairs were strengthened to allow both the flights and balustrade to be retained and reinforced concrete walls were constructed for two new lifts. The site is ideally situated for integration with various forms of sustainable transport including Luas, Dublin Bus, and bike share schemes. In addition, the Two Grand Parade site is intended to serve as the location for the final stop of the proposed metro line. With this in mind, part of the project involved the design of structure to allow the future construction of a metro station beneath the footprint of the Two Grand Parade site. This structure would serve to reduce the potential disruption and need for future demolition during the construction of the metro station. DBFL and the wider project team were part of discussions with Transport for Ireland to allow for a station based on the proposed route and assist with aspects of the public consultation process. Recycled GGBS material was utilised in the concrete mix design for the large concrete pours during the construction of these elements.

The new six storey steel frame structure utilised Westok castellated steel beams. The economical design methodology and castellated nature of these beams enables savings in steel tonnages when compared to other methods of steel design. The castellated nature also allows for efficient integration with various building services and a reduced structural floor depth being required for each floor. Green roofs were utilised as a SUDS measure to control rainwater flows into the public system in the event of storms.



Selected Project Highlights with LEED/WELL/HPI



Two Grand Parade

Location: Dublin 6 Client: Hines Architect: Henry J Lyons

Description:

Office development providing 106,000ft2 of office space including 6 storey new-build structure and complete refurbishment of the existing 7 storey 1960's office building (Protected structure) to bring up to modern standards.

Accreditations:

• LEED Platinum



The Freight Building

Location: Sheriff Street Upper, Dublin 1 Client: Glenveagh Architect: OMP

Description:

The Freight Building is a 10 storey building providing 9,742 m2 of modern Grade A office space.

Accreditations:

- LEED Gold • WELL Gold
- BER A3
- NZEB



Haymarket

Location: Smithfield, Dublin 7 **Client:** Linders **Architect:** Reddy Architecture and Urbanism

Description:

Contemporary office development boasting 7,765m2 of workspace over six storeys with retail and restaurant at ground level, 242m2 of open air terrace and parking facilities at basement level.

Accreditations:

- Wellness Gold Rating
- Wired Score Platinum
- BER A3
- LEED Gold rating





Former Ford Distribution Site

Location: Cork Client: Glenveagh Architect: O'Mahony Pike Architects

Description:

The layout of this new city quarter features three staggered urban blocks, integrated with streets and open spaces to create a vibrant residential scheme with community uses. This design enhances visual permeability and offers a variety of public spaces, including pocket parks, a linear park, a local centre square, and a waterside plaza.

Accreditation:

- ٠HPI
- EU Taxonomy



New Ross Fire Station

Location: Wexford Client: Wexford County Council Architect: CJ Falconer & Associates

Description:

The construction of a modern single storey fire station with training tower and ancillary accommodation including all associated site works, comprising of a new entrance, all services and drainage connections, vehicular access and parking and boundary treatments at Bennettsknock, New Ross, Wexford.

Accreditation:

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Carbon Calculators

As engineers, DBFL are fully aware of the impact our decisions have on resources, energy demands and the environment. We are committed to ensuring these decisions have the most positive environmental effect possible.

DBFL are signatories to the Association of Consulting Engineers of Ireland's (ACEI) Pledge to Net Zero. By registering for this commitment, DBFL join the group of leaders in the built environment sector taking strong actions to mitigate the most significant impacts of climate change.

With ACEI support, our aim is to achieve Net Zero in operational GHG emissions by 2030. At DBFL we believe it is critical that we do our part in assisting (and guiding) clients in their endeavours to assess, reduce and remove carbon emissions from their projects across all life cycle stages.

DBFL can only influence design decisions, however we aim to promote sustainable design options wherever appropriate.

- Encourage engineers to consider the environmental impact of their decisions in relation to their designs as a distinct part of the design process.
- Encourage engineers to try to get clients and other design team members to consider sustainability in their own aspects of a project.
- Encourage engineers to think about using sustainable materials and construction methods wherever possible.

In Transport:

- We ensure that potential carbon implications of proposals are accounted for at options assessment/business case phase as set out in the Transport Appraisal Framework assessment criteria.
- We have developed a high-level carbon calculation tool for in-house assessments at options stage, using the same emission factors and descriptions built into the more detailed tools used later in the design process. This allows transport planners to get a sense of the implications early optioneering can have on the carbon emissions of a scheme, and allows a seamless transition in our reporting from concept stage

through to preliminary and detailed design phases where more detailed information is available.

In Civil:

- We are actively using the TII Carbon Tool (and investigating adoption of others such as the ICMS III tool) to calculate the total carbon emissions of our schemes at various design stages – and report this as part of Environmental Impact Assessment Reports and Engineering Reports at planning stage and beyond.
- We are creating an updated Civil works specification encouraging designers to consider low carbon products / designs as the default, rather than as the exception.

In Structures:

- We regularly use the IStructE Carbon Calculator on projects to report to clients on the carbon implications of various design options.
- We use Revit for material volumes as an input into the Carbon Calculators.
- We carry out full life cycle assessments (LCA) of projects for clients, to assist them with their obligations under EIAR chapters.





Pledge to Net Zero - PTNZ

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Introduction to PTNZ

In November 2021, DBFL committed to the Association of Consulting Engineers of Ireland's Pledge to Net Zero, a partner to the United Nations' Race to Zero Campaign. By registering for this commitment, DBFL joined the group of leaders in the built environment sector taking strong actions to mitigate the most significant impacts of climate change. With ACEI support, DBFL's aim is to achieve Net Zero in operational GHG emissions by 2030.

The aim is to effect meaningful change to the benefit of the environment and to play our part in the fight to mitigate the cause and effects of the global climate crisis.

A small working group reviewed all possible sources of emissions according to their emissions classification i.e., Scope 1, 2 or 3. We compiled the list of actual emissions usages specific to DBFL's operations from 2019 as our baseline year accounting for the usage data through billing and accounts records. Following this we drafted an outline plan to reduce our scope 3 emissions in line with the SBTi tool set target of 46.2% to achieve 1.5°C of global warming, equating to approximately 6% per year to 2030.

Our most recent reporting figures for 2024 have a greatly reduced figure of 161.2 tCO2e falling below our target of 163.3 tCO2e. Notably from our base year 2019 compared to our most recent year 2024, we have seen a drop of 47% in our carbon emissions of approximately 140 tCO2e.

Steps taken in house

- To reduce our business travel from cars we have replaced 6 diesel engine vehicles with fully electric vehicles and added two more hybrid vehicles to our fleet.
- We have changed the lighting across Dublin & Cork offices.
- · We have adjusted settings on thermostats around the office.
- We have taken a stance on being a paperless office and have greatly reduced our paper consumption
- We implemented a 'Car Free Week' in our offices where all staff had to use alternative modes for their commute. This has resulted in more senior staff using public transport rather than driving and increasing their working from home days. This has resulted in a drop of almost 10 tCO2e.We have promoted active travel in all our offices and have gold

member status as Cycle Friendly Employers. We have greatly improved the facilities for employees cycling to work where possible.

	31st December 2019	31st December 2022	31st December 2023	31st December 2024	Abs. Contraction 1.5°C - 2030
Scope	tCO2e	tCO2e	tCO2e		tCO2e
1	53.53	41.189	39.214	39.83	28.8
2	89.08	17.01	24.762	O	47.9
3	161.039	151.896	143.08	121.36	86.6
TOTAL	303.6	210.1	207.1	161.2	163.3



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Smarter Travel



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Our Travel Behaviour

In November 2021, DBFL committed to the Association of Consulting Engineers of Ireland's Pledge to Net Zero, a partner to the United Nations' Race to Zero Campaign. DBFL conducts an annual Travel Survey to gather valuable insights into staff commuting patterns and travel behaviours.

This data helps us identify opportunities to promote sustainable travel, assists us in supporting the well-being of our employees, and provides insight on our progress of reducing our environmental impact in our effort to reach net zero carbon emissions.

Between 2022 and 2024, DBFL has made significant strides in promoting sustainable travel practices, as highlighted in our annual Travel Survey. Car usage for meetings decreased by 10%, with notable increases in carpooling, train usage, and walking, demonstrating a shift towards more eco-friendly travel choices.

Similarly, car usage for site visits dropped by 15%, driven by an 8% rise in bus usage (from 3% in 2023 to 11% in 2024) as well as an 8% increase in carpooling (from 7% to 15% over the same period). These shifts not only reduce our carbon footprint but also reflect our commitment to fostering a culture of environmental responsibility among staff. By actively encouraging alternative modes of transport, we are aligning with our ESG goals and contributing to broader sustainability efforts within the engineering sector.







Expertise

At DBFL, we are committed to promoting active travel and sustainability, ensuring that our designs for active travel facilities align with the guidelines and best practices. Whether it's cycle lanes, pedestrian pathways, or other infrastructure, we prioritise the needs of active travellers to create environments that encourage healthier and more sustainable transportation choices. By pushing for sustainable solutions, DBFL leads by example in fostering sustainable transport practices, aiming to set a benchmark in the industry.

Sample Project 1 – Lismore Park Pathfinder Project, Waterford

The Lismore Park Pathfinder Project is an initiative aimed at enhancing existing sustainable transportation options by improving active travel infrastructure, as well as providing new active travel facilities. The Lismore Park Pathfinder Project, which is a neighbourhood improvement scheme, is one of 35 projects selected nationally by the National Transport Authority (NTA) as part of its initiative to pilot and develop innovative solutions for enhancing active travel infrastructure and promoting sustainable commuting in local communities.



Sample Project 2 – Deansgrange Cycle Scheme

The Deansgrange Cycle Scheme is an example of sustainable urban design that emphasises active travel infrastructure while promoting environmental conservation and heritage preservation. The scheme provides dedicated facilities for both walking and cycling along Kill Lane and Deansgrange Road, offering safe and sustainable transportation options for local residents, commuters, and school users. The integration of these facilities not only encourages a healthier lifestyle but also reduces reliance on private vehicles, supporting the move towards sustainable transportation.





Leadership

In a further attempt to promote sustainable travel internally, DBFL's Dublin Office has installed three drying cabinets which staff cycling to work can use to dry any wet gear. In addition, a bicycle repair stand has been installed, turning the hassle of bike repairs into a pit stop of possibility and making the journey to the office something to look forward to!

It is worth highlighting DBFL's active participation in Smarter Travel initiatives. These include Walktober, Marchathon, and Bike Week, where we provide free breakfasts for cyclists and initiatives such as free bike servicing, distribution of free bike lights through the NTA's Light Up campaign, and reflective backpack covers to promote safe and sustainable travel.



Cycle Parking at Ormond House

Car Free Week

In Celebration of European Mobility Week, DBFL ran a Car-Free Week from 16th to 22nd September 2024, encouraging all staff to opt for sustainable modes of transport as opposed to driving a car. Leap Cards were provided to all those changing mode from car to sustainable travel (walk, cycle, public transport), encouraging uptake of sustainable travel practices.





Smarter Travel Mark

In September 2023, DBFL was awarded the Gold Smarter Travel Mark for our work in promoting sustainable travel throughout the company. The Gold Mark is awarded by the NTA where "the organisation has outstanding measures in place that support sustainable and active commuting and is committed to long term investment and leadership in Smarter Travel." DBFL was one of the first twenty organisations nationally to receive the Smarter Travel Mark.



DBFL Receiving the Gold Smarter Travel Mark

our head office at Ormond Quay in Dublin obtaining the European Gold Standard Accreditation. In 2023, our Cork office at South Mall followed, also obtaining the Gold Standard Accreditation.



Each year DBFL undertake an evaluation to confirm that the required CFE action fields (measures to improve the conditions for cyclists as per the CFE requirements) were undertaken to meet the CFE standards (Gold, Silver or Bronze). As part of our CFE accreditation, our employees benefit from discounted Cycling Ireland membership.

Cycle Friendly Employer Accreditation

The cycle-friendly employer certification scheme was developed to establish a European standard for cycle friendly companies. The certification is intended to help European companies to improve the situation for employees that cycle to work. In 2021, DBFL became a Cycle Friendly Employer (CFE) with



Quality and Integrity



Integrated Management System

DBFL operates an Integrated Management System (IMS) incorporating our Quality, Health & Safety and Environmental Management Systems in our Head Office in Dublin and across our three regional offices in Cork, Galway and Waterford. DBFL has an NSAI accredited ISO 9001:2015 NSAI certified Quality Management System, ISO 45001:2018 Health and Safety and ISO 14001:2015 Environmental accreditation.



DBFL's Integrated Management System Procedures Manual outlines the guidelines that are followed by all management and staff within the organisation.

Environmental Policy Statement

DBFL published our Environmental Policy Statement in 2021 and review it annually to reflect our current policies and actions.

ENVIRONMENTAL POLICY STATEMENT

DBFL Consulting Engineers have been in practice for over 35 years as Civil, Structural and Transportation Engineers. We work as Engineers to address challenges faced by society in the built environment, civil and transport infrastructure fields. Our reach is international, and our expertise broad.

As Engineers, we are fully aware of the impact our decisions have on resources, energy demands and the environment. We are committed to ensuring these decisions have the most positive environmental effect possible.

As part of our wider Sustainability initiatives, we are committed to:

- Working with partners and clients to identify and reduce the environmental impact of our projects
- Complying with all relevant legislation and regulations
- Measuring, monitoring, and reducing our energy use in each of our four offices
- Actively promoting sustainable travel options for all Staff
- Maintaining our accreditation as a 'Smarter Travel Office' and gold level 'Cycle Friendly Employer'
- Implementing the procedures as set out in our Environmental Management System and maintaining our accreditation to ISO 14001
- Minimising waste generation and providing recycling facilities in our offices
- Fulfilling our Pledge to Net Zero, in conjunction with the Association of Consulting Engineers of Ireland (ACEI). This initiative is in partnership with the UN's Race to Zero campaign.
- Continuing our work with the Irish Green Building Council to promote sustainable construction materials and methods
- Measuring and reducing the embodied carbon footprint of our built environment projects
- Specifying recycled construction materials where possible
- Promoting research and development of solutions to reduce the environment impact of our decisions and designs
- Designing and delivering projects which will contribute to limiting climate change in alignment with the UN Sustainable Development Goals
- Communicating and updating our Environmental and Sustainability Policies on an ongoing basis

DBFL's Environmental Policy Statement will be reviewed by the Directors on an ongoing basis and updated as appropriate.



Dan Reilly Managing Director September 2024





Leadership and Governance



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Leadership & Governance

DBFL has a well-established company structure with the Director Group overseeing the management and decisions made by the company, including the impacts on the business, the environment and employees. This structure ensures accountability, oversight, and clear channels of communication.

The Director Group is supported by Technical Directors, Associate Directors, Technical Leads, and Associates, along with Finance and Marketing Departments, IT, HR and Office Management.



Employee Handbook

The Employee Handbook contains company information and a summary of the Company policies. It is designed to give clear guidance to employees and to create a culture where issues are dealt with fairly and consistently.

Equal Opportunity Employer

DBFL is a forward-thinking engineering consultancy and an equal opportunities employer. We believe that a variety of perspectives drives innovation and excellence, and we actively seek to create an environment where everyone feels valued and empowered to contribute their unique talents. Our dedication to diversity, equity, and inclusion is not just a policy, but a core value.

Dignity at Work Policy

DBFL Consulting Engineers is committed to protecting the dignity of all employees within the company. Every individual has the right to be treated with dignity and respect.

Professional Memberships

DBFL is a member of Engineers Ireland and the Association of Consulting Engineers of Ireland (ACEI).

Employee Assistance Programme

All staff at DBFL have the support of our Employee Assistance Program (EAP). The EAP is a confidential and comprehensive support initiative to assist employees and their families in managing personal and work-related challenges. The EAP provides a range of services such as counselling, mental health support, financial advice, and legal assistance. All services are available to employees and their family members at no cost to the employee.

Benefits & Initiatives

At DBFL we offer a wide range of benefits and initiatives in our commitment to creating a supportive and fulfilling work environment. Benefits include competitive salaries, employee assistance programme, company pension scheme, generous annual leave allowance, increased annual leave with length of service, supported CPD and hybrid work arrangements to promote work-life balance.





Engineering Sustainable Futures



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