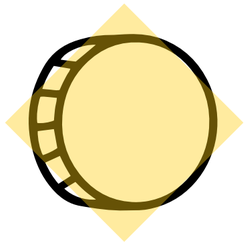
Case Study: Raheen, Clara

At a Glance

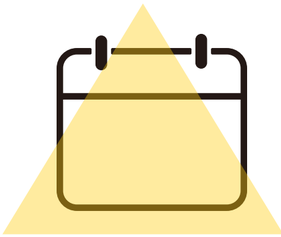
Client

Offlay County Council



Budget

€ 11,900,000.00



Completion

October 2024

Location

Raheen, Clara, Co. Offaly

Sector

Residential

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Project Outline

The project involved the delivery of 38 high-quality residential units, compromising of 1, 2 & 3-bedroom bungalows, 2 & 3-bedroom two-story terrace homes, and 3 & 4-bedroom two-story semi-detached homes.

Each home was finished to an A2 BER Rating, which exceeded the required BER Rating of A3 BER.

There was zero Lost Time Incidents and Zero Safety Incidents.

Homeowners received keys to their homes 2 days after substantial completion, which Bretland representatives on site to assist with an queries.

Works also included the full installation of site services, utilities and civil infrastructure, as well as an Uisce Éireann compliant foul pumping station, an extensive soft landscaping package, perimeter boundary fencing and all associated works for the macadam roadway.

Photo: Site of Willow Drive, Raheen, Clara pre-construction

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Delivery – Collaboration – Innovation

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Value Engineering

The following scopes of work were value engineered:

Precast pile and ground beam: A precast pile and precast ground beam was proposed, saving time and money on the ground beams element of the works.

Windows: Bretland proposed changing the window frames from Aluclad to uPVC which provided a substantial saving to the client.

Tarmacadam Depths: We reviewed the depth of the tarmacadam roadways with the client's design team and reduced depths.

Garden Walls: On the original plans the walls in the back gardens were a rendered blockwork wall. We proposed a concrete post and timber panel, saving time and money.

Door Canopies: On the original plans, the door canopies were constructed of structural steel, timber infill and finished in Zinc. We proposed a fibreglass canopy which omitted the need for the steel structure and zinc finish. This provided a substantial saving in time and money.

Finish to Boundary metal railings: The railings were to have a galvanised and powder coated finish. We proposed a galvanised only finish.

Landscaping: soft landscaping within the estate was reviewed and altered in order to value engineer the overall package but at the same time achieving aesthetically pleasing result.

Foundation and Groundworks Optimisation

Efficient Internal and External Plastering
All plastering works - both internal and external - were completed using a plastering pump system. While its adoption has increased across the industry in recent years, its use on this project delivered significant productivity gains. The system allowed for faster application, improved finish consistency, and notable time savings during the construction programme.

Safe Installation of a Deep Foul Pumping Station
A redesign of the foul network required the pumping station to be installed at a depth of approximately 7 metres—significantly deeper than originally planned. To ensure safety and compliance, Bretland engaged a ground support specialist to design a suitable temporary works solution in the form of a coffer dam. Bretland's own employees, who had been trained and certified in the installation of such systems, then carried out the works. Their involvement ensured a controlled, safe, and efficient installation of the deep pumping station.

Foundation and Groundworks Optimisation

Foundation Design Review and Optimisation
The project's original foundation design specified traditional strip foundations supported by precast concrete driven piles. Before mobilisation, Bretland's engineering team, in collaboration with a specialist piling contractor, carried out a full design review. This led to a refined solution: precast concrete ground beams installed on precast concrete driven piles. The proposal was approved by the design team, offering improved efficiency and buildability while maintaining structural performance.

Technology-Driven Bulk Excavation
For the initial bulk excavation works, Bretland and the groundworks contractor implemented GPS-guided excavators and dozers. This technology enabled operators to work with high precision without continuous external surveying input, allowing for self-sufficient excavation and fill operations. The approach reduced downtime, improved accuracy, and streamlined progress on site.

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Collaborative Problem-Solving and Project Coordination

Proactive Site and Design Collaboration
The presence of an experienced site team working closely with the design team enabled open, constructive, and decisive workshops whenever ground condition challenges arose. This collaborative approach ensured issues were identified and addressed early, minimizing delays and mitigating cost impacts.

Practical, Cost-Effective Solutions
Bretland's site team, drawing on extensive civil engineering experience, worked alongside consulting engineers to develop practical, cost-effective solutions for the unforeseen ground conditions encountered during excavation. Although the initial ground investigation reports were comprehensive, they did not fully reflect the actual site conditions. Bretland's hands-on expertise proved critical in bridging the gap between theoretical reports and real-world site challenges.

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Collaborative Problem-Solving and Project Coordination

Leadership and Coordination
Acting as the central coordinator, Bretland facilitated communication and decision-making between specialist piling contractors, geotechnical experts, and the design team. This approach ensured amicable, time-conscious solutions that balanced cost efficiency with technical requirements. A dedicated BCAR/Project Coordinator was employed for the duration of the project, enabling seamless administrative processes. All BCAR documentation and ancillary certifications were completed promptly, eliminating the need for last-minute submissions during handover.

Client Engagement and Handover Excellence
Prior to project handover, a detailed demonstration day was conducted with client representatives to showcase completed works. Bretland team members were present during key distribution to tenants, ensuring a smooth transition and addressing any queries in real-time. This proactive approach contributed to a highly professional, client-focused handover experience.

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Health, Safety & Sustainability

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Health and Safety Excellence

Health and safety were a core priority throughout the Willow Drive project, underpinned by Bretland's ISO-certified Integrated Management System, incorporating **ISO 45001:2018 Occupational Health & Safety standards**. From the outset, a structured set of Health & Safety goals was established to ensure that all personnel, employees, subcontractors, and visitors, worked in a safe environment fully compliant with safety plans, inductions, and regulatory requirements.

Bretland deployed the Onos digital platform to manage all Environmental, Health & Safety (EHS) controls, including inductions, waste tracking, internal audits, and safety documentation. The system provided real-time visibility of compliance and enabled proactive management of potential risks.

A key initiative on site was the use of Onos's digital hazard-reporting system, allowing workers and members of the public to report hazards instantly via QR-coded signage. This "See it, Snap it, Share it" approach fostered a strong safety culture and encouraged full engagement across the supply chain in risk identification and mitigation.

Routine inspections by the Health & Safety Authority confirmed the effectiveness of these measures, with inspectors highlighting the project's strong organisation, culture, and proactive safety systems. The project achieved outstanding results:


Zero Lost Time Injuries


Zero Safety Incidents


Zero Environmental Incidents

This record reflects Bretland's unwavering commitment to the highest standards of health, safety, welfare, and respect for both site personnel and the wider community.

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Sustainability and Environmental Performance

Sustainability was embedded throughout the design and delivery of the Willow Drive development, guided by **Bretland's Integrated Management System** and **ISO 14001:2015 Environmental Management certification.** The project adopted a whole-life approach, combining responsible construction practices with long-term operational efficiency for future occupants.

A comprehensive **Waste Management Strategy** was implemented to minimise environmental impact. Waste was segregated at source—including timber, metal, plasterboard, and general waste—and processed through licensed waste contractors. All waste transfer notes, facility permits, and consignment documentation were logged digitally via the Onos platform, enabling real-time monitoring, trend analysis, and ongoing optimisation of waste handling processes. Regular reviews ensured that segregation systems remained effective and adaptable to the evolving construction programme.

Sustainability and Environmental Performance

Sustainable material selection and building performance were key priorities. Materials were specified according to design requirements, with environmentally responsible alternatives proposed where feasible. While the **development originally targeted an A3 Building Energy Rating (BER),** careful design and specification enabled **each dwelling to achieve an A2 BER**, **exceeding expectations** and positioning the homes among the most energy-efficient in their category.

Key sustainability-focused design and material considerations included:

- Optimised concrete mix for ground floor slabs
- High-performance insulation in roof and cavity walls
- Triple-glazed Passive-uPVC windows
- Robust external doors and durable finishes
- Enhanced airtightness measures to reduce heat loss

Sustainability and Environmental Performance

Digital tools, particularly Procore, were utilised to manage documentation related to materials, testing, BER assessments, and product approvals. This ensured full transparency, traceability, and compliance with sustainability objectives.

Through meticulous planning, responsible material use, digital management systems, and a focus on building performance, the Willow Drive project delivers long-term environmental, operational, and energy-efficiency benefits for both the client and residents.

Impact on the Community

Community Impact and Social Value

The Willow Drive development has delivered tangible benefits to the local community, providing high-quality, energy-efficient homes for nearly forty families while fostering social inclusion and cohesion. The project's design and delivery carefully considered integration with existing neighbourhoods, public amenities, and surrounding infrastructure, ensuring the development complemented its rural–urban edge setting in Clara.

Connectivity within the area was enhanced through the construction of new footpaths linking the development to adjacent neighbourhoods, the installation of two pedestrian crossings, and macadam resurfacing of local carriageways. These improvements promoted safe and accessible movement for residents and strengthened links between existing and new communities.

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Community Impact and Social Value

Community-focused design was a key priority, with bespoke adaptations implemented for accessibility based on occupational therapist recommendations. These features ensured that residents with additional needs could live safely and independently, demonstrating a commitment to inclusivity and long-term usability.

Early engagement with residents, Offaly County Council, and local stakeholders supported a smooth handover and occupancy process. Tenants were able to move in just two working days after Substantial Completion, reflecting careful planning, coordination, and high-quality workmanship. Residents were also provided with demonstration videos covering heating systems, heat pumps, and room thermostats, ensuring they could operate their homes efficiently and safely from day one.

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Community Impact and Social Value

Proactive communication with neighbours and community groups, including the local Tidy Towns committee, minimised disruption during construction, while careful management of traffic and pedestrian flows maintained public safety and fostered goodwill. Landscaping and public realm enhancements further reinforced the aesthetic quality of the development, creating a welcoming environment that contributes positively to the wider community.

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Thank you.