

Project Title	Improvements to Public Realm to Bridge Street and lands to the rear and side of The Grain Store, John's Street, New Ross, Co. Wexford
Document Title	Engineering Response to An Coimisiún Pleanála (ACP) Technical Queries
Client	Wexford County Council
File No.	J08_DRPL_020
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Checked by:	Tom Culligan
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Revision	P1

INTRODUCTION:

This report addresses the queries raised by An Coimisiún Pleanála in regard to the proposed improvements to Public Realm to Bridge Street and lands to the rear and side of The Grain Store, John's Street, New Ross, Wexford.

1. Executive Summary & Phasing Directives

This technical strategy report has been compiled by Brunner Consulting Engineers (BCE) to establish a robust engineering justification in response to the Section 177AE(5) Further Information request issued by An Coimisiún Pleanála (ACP) on 25 June 2026. Following the formal directive issued by Wexford County Council (WCC), the design team has been instructed that the John Street Grain Store (Phase 1) and the Riverside Public Realm Plaza (Phase 2) will proceed strictly as separate, consecutive developments. No elements of either construction contract will be undertaken concurrently.

This sequential construction timeline of Phases 1 & 2 defines our technical response strategy. Rather than evaluating overlapping site compound boundaries or concurrent construction traffic, the focus is on operational transition, ensuring that the completed Phase 1 works are protected from subsequent Phase 2 works. Following detailed hydraulic and topographical reviews of the Bridge Street corridor, BCE is incorporating a permanent hydrocarbon separator to intercept and treat external public road runoff entering the site during heavy storm events. This report details the updated, coordinated engineering solutions to the key drainage, calculations, environmental, and access queries raised by ACP.

CRITICAL PHASING PROTOCOL:

1. John Street Grain Store (Phase 1 / Planning Ref: LAC2401) will be fully completed and brought into operational use first, including its internal drainage networks and café/restaurant extension.
2. On-site access to both projects will be facilitated via the John Street carpark and the existing laneway beneath No. 3 Bridge Street. Upon Phase 1 completion, the passageway beneath No. 3 Bridge Street will be temporarily closed to the public and reserved solely for Phase 2 construction access. Café access will be re-routed exclusively through the John Street entrance.

2. Architectural & Site Layout Integration

This strategy directly integrates the updated architectural drawings received from ODKM Architects (Drawings 19-104-ACP-FI-P-100 and P-101), which reflect WCC's June 2026 planning commitments to Rogers Dental. These design revisions—specifically regarding boundary treatments, pedestrian ramp geometry, and construction site boundary setups—are cross-referenced throughout this report and are fully aligned with the proposed drainage layouts (BCE Drawing J08-P-10).

3. Point 1.d: Construction-Phase Surface Water Management

ACP Query: The Board is concerned that the CEMP's proposed mitigation measure to completely block the site's single surface water outfall (S00) to the River Barrow with sandbags during the 18-21 month construction period will cause severe localized flood risk. Specifically, ACP requires details of how surface water will be managed, particularly since both developments share this outfall and may be constructed at different times.

Engineering Strategy (Dynamic Branch Isolation Protocol):

Because Phase 1 (Grain Store) will be operational prior to the commencement of Phase 2 (Plaza) works, the main 300mm surface water collection line (S03 to S00) must remain fully live and unblocked to drain the active Phase 1 building and café roof. To completely isolate the Phase 2 plaza construction yard without impacting the live Phase 1 drainage, we specify a Dynamic Branch Isolation Protocol:

BCE Specification for Phase 2 Contractor:

- *Localized Tributary Plugging:* The contractor shall not place sandbags or blocks inside the main outfall S00. Instead, localized mechanical inflatable pipe stoppers shall be installed in the tributary inlets of the Plaza network, specifically at Manhole S10 (blocking incoming S11/S12) and Manhole S20 / S22.
- *Separation of Active Runoff:* This physically blocks the construction-phase plaza runoff from entering the shared sewer line, keeping cement wash, sediment, and hydrocarbons entirely localized to the excavation trenches.
- *Active Treatment & Pumping:* Silt-laden trench water will be actively pumped using submersible pumps to a mobile, on-site silt-filtration and pH-neutralization system (e.g., Siltbuster) located on site before being discharged as clean effluent back into the live S01 outfall chamber.

4. Point 1.e: Cumulative Stormwater Discharge Calculations

ACP Query: The Board notes that the drainage reports evaluate the plaza and building in isolation. ACP requires cumulative drainage calculations to demonstrate that combined surface water runoff from both developments is less than or equal to current discharge, alongside a combined catchment map.

Hydraulic Assessment & Runoff Reductions:

The baseline site is currently 100% impermeable, generating high, unattenuated peak runoff directly into the River Barrow via gravity outfall S00. Our cumulative design integrates dual-stage Sustainable Urban Drainage Systems (SuDS) across both consecutive phases to significantly reduce the net impermeable catchment area:

Parameter	Existing Baseline	Proposed Phase 1	Proposed Phase 2	Cumulative Total	Net Change
Total Catchment (Ha)	0.1116 Ha	0.0450 Ha	0.0666 Ha	0.1116 Ha	0.0000 Ha (0.0%)
Impermeable Area (m ²)	1,116 m ²	450 m ²	446 m ²	896 m ²	-220 m ² (-19.7%)
Permeable Greening (m ²)	0 m ²	0 m ²	220 m ²	220 m ²	+220 m ² (+100%)
SuDS Features	None	Café Green Roof	Tree Pits & Planters	Integrated Network	Dual-Stage SuDS
Peak 100-Yr Runoff (l/s)	27.7 l/s	10.8 l/s	10.4 l/s	21.2 l/s	-6.5 l/s (-23.5%)

Hydraulic Adequacy & Discharge Performance:

The main 300mmØ outfall sewer running from S01 to outfall S00 at a 1:100 gradient has a full-bore hydraulic capacity of 78.4 l/s. Under the cumulative 1-in-100-year storm event (incorporating a 20% climate change surcharge), the combined peak flow from both developments is 21.2 l/s, which represents a 23.5% net reduction in discharge against the baseline and utilizes less than 30% of the pipe's capacity. Drawing J08-P-11 (Cumulative Catchment Map) to formally demonstrate this performance.

5. Point 1.f: Hydrocarbon Interceptors & SAC Protection (Design Concession)

ACP Query: Are there any existing hydrocarbon interceptors on the surface water outfall, or is it proposed to install any on the surface water network prior to surface water entering the River Barrow and River Nore SAC, particularly following flood events that are stated in the Strategic Flood Risk Assessment to be expected to extend inland as far as the café that forms part of the approved Part 8 development?

BCE Engineering Justification & Updated Design Concession:

While the proposed Public Realm Plaza is entirely pedestrianized and incorporates extensive SuDS filtration greening that negates the chronic operational risk of on-site vehicular oil leaks, we have included a permanent Class 1 Bypass Hydrocarbon Separator on the final collector outfall line. The Hydrocarbon Separator includes 2,000litre silt trap storage capacity.

Key Technical Drivers for the Interceptor Concession:

- **Bridge Street Overland Runoff Capture:** Existing public utility surveys and levels indicate that Bridge Street (which remains an active public road with significant vehicle traffic) slopes down toward the site boundary. During heavy rain events, substantial volumes of overland stormwater runoff from outside the site boundary collect at the low points along Bridge Street.
- **S22 and Linear Drain Vulnerability:** The existing public surface water connection manhole S22 and the adjacent linear slot drain are located precisely at these road low point. Consequently, potentially contaminated surface runoff from the public highway (containing road-derived hydrocarbons, fuels etc) may enter the proposed surface water system during heavy storm events.
- **Class 1 Bypass Separator Specification:** To robustly protect the adjacent River Barrow and River Nore SAC, BCE has specified a permanent Class 1 Bypass Hydrocarbon Separator (conforming to EN 858 and CIRIA C753 standards) to be installed on the main outfall collector line just upstream of outfall chamber S02. This unit is designed to treat flows up to 90% of the peak runoff, ensuring that all road-derived hydrocarbons are fully separated and retained on-site, even during catastrophic storm or tidal back-flooding events.
- **Construction-Phase Mitigation:** This permanent unit is backed by temporary site controls (drip trays, double-skinned bunding in the John Street compound, and spill kits) managed under Fehily Timoney's updated CEMP.

6. Point 3.c: Rogers Dental Drainage & Ramp Accessibility

ACP Query: In relation to the Bridge Street pedestrian access ramp abutting No. 2 Bridge Street (Rogers Dental), ACP requires an existing surface water drainage plan, details of any pipes/manholes to be retained or removed, and precise engineering details on how any existing manholes beneath the proposed ramp will remain accessible for maintenance without requiring structural demolition of the ramp.

Coordinated Structural & Drainage Design:

BCE has coordinated directly with ODKM Architects regarding the revised drawings. The proposed pedestrian ramp is designed as a gently sloping access route with a perforated floor structured as a suspended lightweight galvanized steel frame on slender steel posts (as detailed on ODKM Drawings 19-104-ACP-FI-P-100 and P-101 and BCE J08-P-10). It is not a solid concrete ramp. We address the specific drainage and access requirements as follows:

- **Non-Destructive Maintenance Access (S20, S21, S22):** The proposed ramp alignment directly overlies BCE manholes S20, S21, and S22. To ensure Wexford County Council maintenance crews can access these structures at all times without structural demolition or ramp closure, ODKM Architects will integrate flush-mounted, removable structural floor access panels directly into the ramp's timber/composite perforated decking. These lightweight, slip-resistant composite panels can be easily lifted to expose the underlying standard manhole covers for routine rodding, jetting, or CCTV surveys.

7. Engineering Conclusion

By adopting a sequential phasing approach, we have significantly minimized the potential for cumulative construction environmental impacts. The integration of localized Dynamic Branch Isolation guarantees that the newly completed, live Grain Store (Phase 1) is entirely protected from flood risk during Phase 2 excavations, while the River Barrow SAC remains fully protected from construction-phase sedimentation. Furthermore, by including a Class 1 Bypass Hydrocarbon Separator, the drainage scheme now incorporates a robust physical barrier against road-derived contaminants entering the system via the Bridge Street S22 low-point during heavy storm events. Structuring the Bridge Street ramp as a lightweight suspended steel frame with flush-mounted removable floor panels directly resolves the access and structural concerns.

Appendix A

Drainage & Catchment Layouts



Legend	
Site Boundary	
Surface water drain	
Surface water linear drainage channel by ACO or equal approved	
Drainage proposed under Phase to Grain Store Ref LAC22401 (Not constructed Yet)	
Proposed Manholes/Chambers	

P2	29/09/26	PBr	Boundary alignment corrected
P1	11/09/26	PBr	Issued for ACP submission
REVISION	DATE	DRAWN	REMARK

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER PROJECT DRAWINGS

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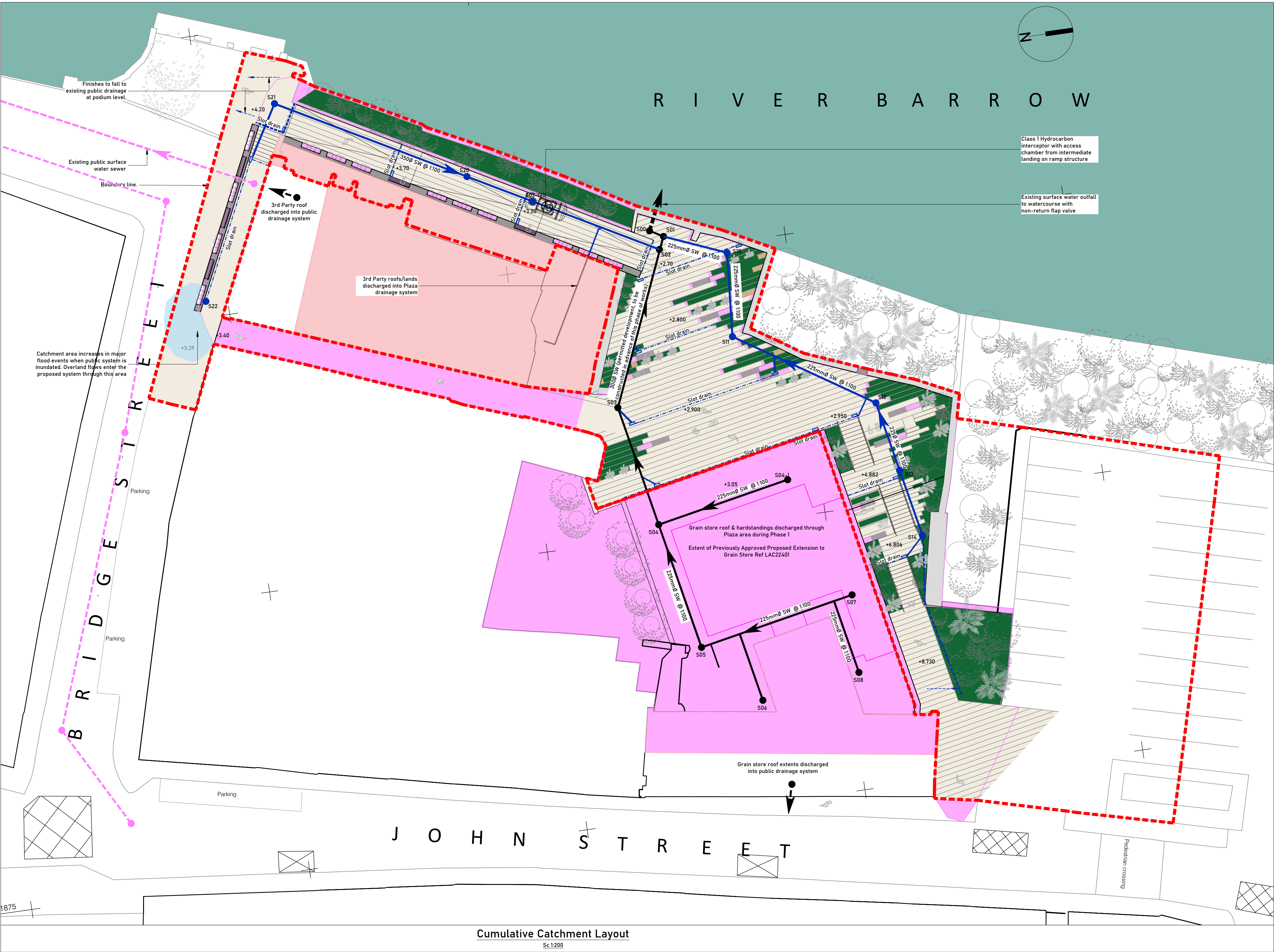
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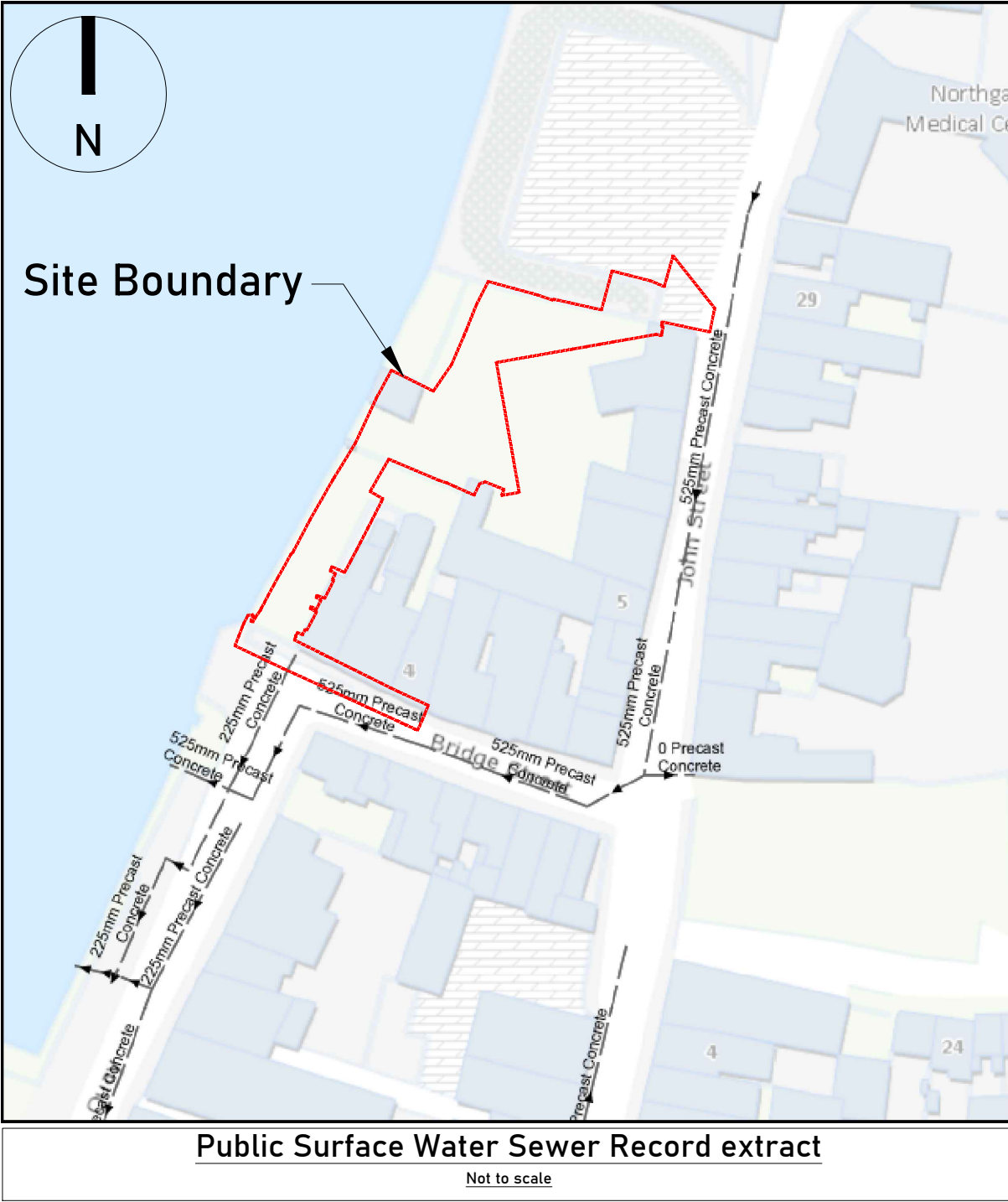
CLIENT: Wexford County Council	ARCHITECT: ODKM Architects
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PROJECT:
Improvements to Public Realm to Bridge St. and lands to the rear and side of The Grain Store, John's St., New Ross, Wexford

DRAWING: Surface water drainage layout	DRAWING NO: J08-P-10	SCALE: 1:200 @ A1
DATE: June '25	REVISION: P2	



Legend	
Site Boundary	
Surface water drain	
Surface water linear drainage channel by ACO or equal approved	
Drainage proposed under Phase to Grain Store Ref LAC22401 (Not constructed Yet)	
Proposed Chamber/Manhole	
Surface water catchment area	
3rd Party lands Surface water catchment area	



P2	29/09/26	PBr	Boundary alignment corrected
P1	14/09/26	PBr	Issued for ACP submission
REVISION	DATE	DRAWN	REMARK

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PROJECT: Improvements to Public Realm to Bridge St. and lands to the rear and side of The Grain Store, John's St., New Ross, Wexford

DRAWING:	Cumulative Catchment Map	DRAWING No:	J08-P-11	SCALE:	1:200 @ A1
DATE:	August '26	REVISION:	P2		