

Session 2: Enhanced Regional Connectivity



Chair: Tim Fitzgerald, Senior Engineer, Mid-West National Road Design Office

11.40 am	The Role of the Expert Advisory Group (EAG) in the delivery of Adare Bypass and other Major Schemes	Gerard Carey, Project Manager for the M21/N69 Foynes to Limerick Road Scheme
11.55 am	Adare Bypass: enabling works, innovation and preparing for construction	Ultan Heffernan, Client Project Manager for the Adare Bypass
12.10 pm	NEC: enabling Adare Bypass delivery – a contractor perspective	Paraic McCarthy, Project Director for Sisk/Sorensen JV
12.30 pm	Address by Minister of State at the Department of Transport	Minister Sean Canney
12.45 pm	Q&A	
1.00 pm	End of Session 2, Lunch	

LIMERICK CITY AND COUNTY COUNCIL

Role of Expert Advisory Group in the delivery of Adare Bypass and other Major Schemes

Gerard Carey, Project Coordinator for the M21/N69 Foynes to Limerick Road Scheme

Foynes to Limerick Road (including Adare Bypass)



THE ROLE OF THE EXPERT ADVISORY GROUP (EAG) IN THE DELIVERY OF THE ADARE BYPASS



Gerard Carey

Project Coordinator

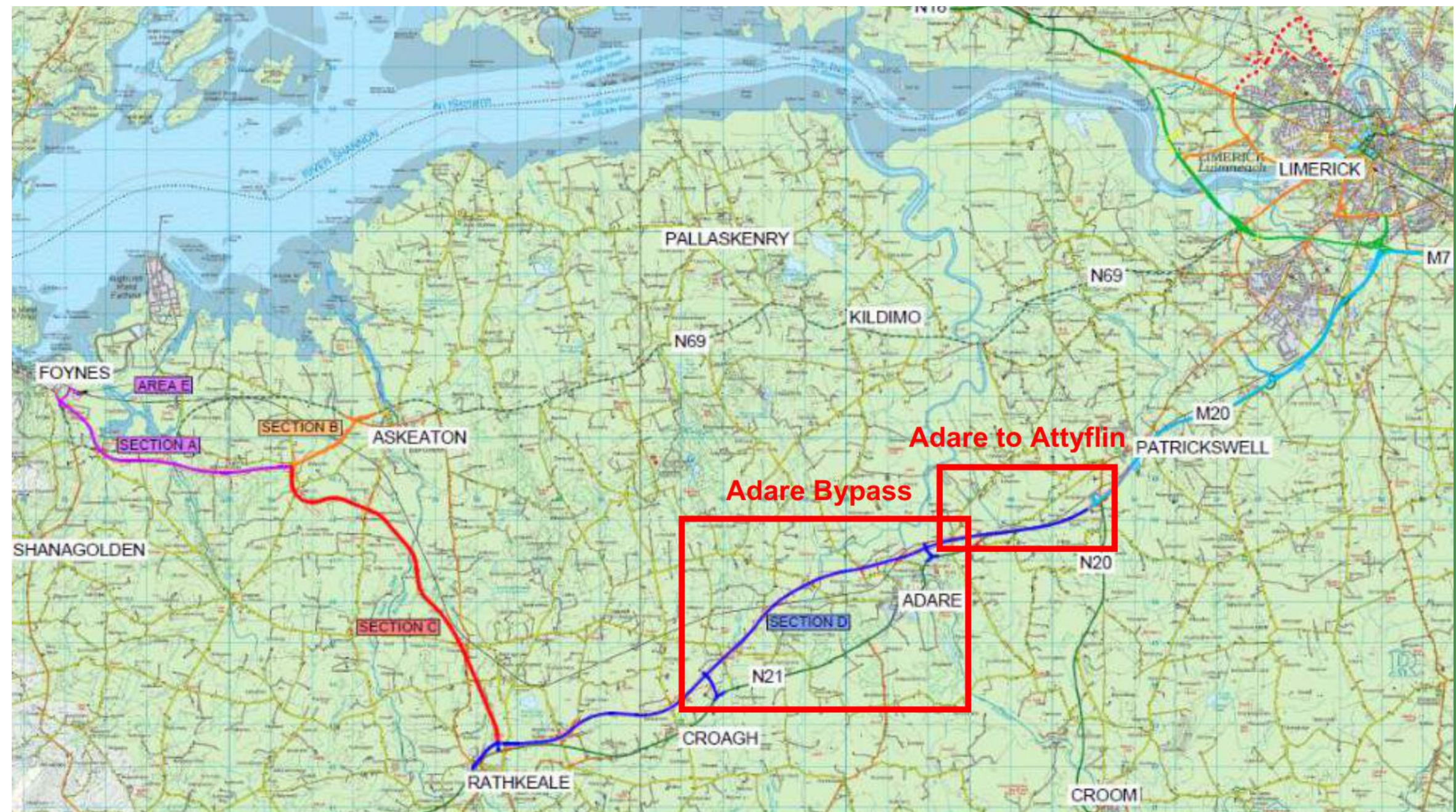
Limerick City and County Council



Foynes to Limerick Road (including Adare Bypass)

Location and Extent of Project

- 34km of Motorway/Dual Carriageway from existing M20 at Attyflin to Foynes
- Adare Bypass – 7km of Motorway, including 25 no. structures
- Adare to Attyflin – 3.5km of Motorway tying into the M20



Comhairle Cathrach
& Contae **Luimnigh**

Limerick City
& County Council

Foynes to Limerick Road (including Adare Bypass)

Relevant Milestones

- Judicial Review Proceedings (3 no.) were withdrawn in June 2023.
- Limerick promptly wrote to TII on the 3rd of July 2023 highlighting the possibility of delivering the Adare Bypass.
- TII advised the Department of Transport on the 13th of July of this possibility.
- Government approved the plan on the 22nd of November 2023.
- The Expert Advisory Group (EAG) was formed and introduced to the project with the first meeting taking place in early March 2024.
- The Tender for the construction of the Adare Bypass was advertised on the 17th June 2024.
- The Contract for the construction of the Adare Bypass was awarded on the 16th December 2024.

Foynes to Limerick Road (including Adare Bypass)

What is an Expert Advisory Group (EAG)?

- A group of expert advisors (can also be one advisor) who are retained to provide advice to a project as and when required.
- The EAG is comprised of advisors who are external to the TII, the Sponsoring Agency (SA) and the Technical Advisors (TA's).
- The EAG is contracted directly to the SA and is not procured nor retained by the project's TA's.
- The EAG provides services directly to the SA and such services should not replicate services already procured/provided, and paid for, under the Technical Services Commission.
- The EAG provides independent advice to the SA and to the TA's if necessary.

Foynes to Limerick Road (including Adare Bypass)

When might you use an Expert Advisory Group?

- An EAG can take many different forms depending on the purpose for which it is being constituted.
- An EAG can be formed at any stage or point in the project lifecycle.

Foynes to Limerick Road (including Adare Bypass)

When might you use an Expert Advisory Group?.....Continued

- **An EAG can be formed for a range of different reasons including:**
 - To address an identified deficit in particular knowledge and /or experience in the project team,
 - To put in place particular expertise to enhance the overall capability of the project team,
 - To use the Group as a sounding board for ideas, proposals, etc.,
 - To provide an alternative perspective and to challenge the project team when required,

Foynes to Limerick Road (including Adare Bypass)

When might you use an Expert Advisory Group?.....Continued

- **An EAG can be formed for a range of different reasons including: Continued**
 - To provide additional reassurance to the SA on difficult issues/decisions,
 - To invite experts from other disciplines to the Group as required. For example, the services of Gary Wright, of Rowark & Wright Limited, was used to provide procurement advice at certain points during the preparation of the tender documentation,
 - To assist in the preparation and review of tender documents, etc., **but they should not be used to check documents.**

Foynes to Limerick Road (including Adare Bypass)

The EAG on the Adare Bypass consisted of three people.



Pat Lucey

*Chartered Engineer,
Fellow of Engineers Ireland,
Former Managing Director of Civil Engineering
for John Sisk & Son (Holdings) Limited*



John Duggan

*Chartered Engineer,
Served on the Board of Directors
of Roadbridge for 19 years*



Kieran Lehane

*Chartered Engineer,
Fellow of Engineers Ireland,
Project Resident Engineer on multiple
TII-funded major road projects*



Comhairle Cathrach
& Contae **Luimnigh**

Limerick City
& County Council

Foynes to Limerick Road (including Adare Bypass)

What prompted the formation of the EAG on the Adare Bypass?

- We were preparing the tender/contract documents for the Adare Bypass Design and Construction Contract to a very tight deadline and the input of experts with a contractor an/or contract administration background increased the chances of success in the later procurement and construction stages.
- We were using the NEC4 Engineering and Construction Contract (Option C – Target Cost with Activity Schedule) form of contract for the first time.

Foynes to Limerick Road (including Adare Bypass)

The EAG were involved in key decisions that contributed to a successful outcome, including:

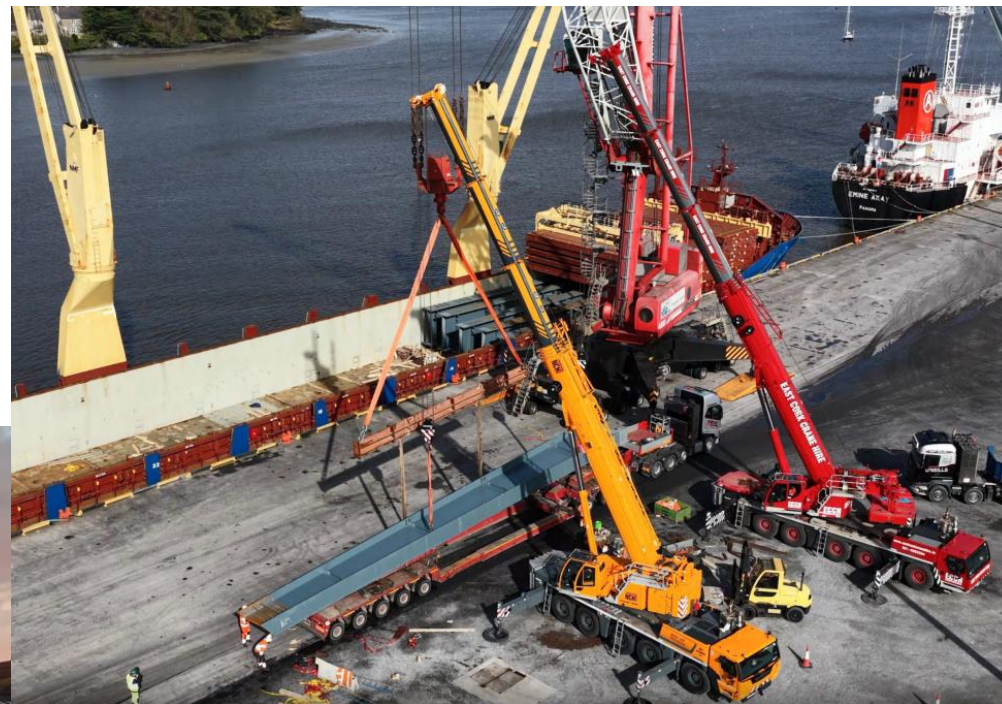
Maigue River Bridge

- Notwithstanding that a design and build contract was being prepared, it was decided to develop the Maigue River Bridge to the '*standard*' of a detailed design and include this design in the Adare Bypass tender documents.
- This allowed the Contractor to adopt the detailed design as their own and place orders for steel components early in the construction programme.
- It is estimated that between 4 and 6 months was saved in the construction programme as a result of this decision.

Foynes to Limerick Road (including Adare Bypass)

The EAG were involved in key decisions that contributed to a successful outcome, including:.....Continued

Maigue River Bridge - Photos



Comhairle Cathrach
& Contae **Luimnigh**

Limerick City
& County Council

Foynes to Limerick Road (including Adare Bypass)

The EAG were involved in key decisions that contributed to a successful outcome, including:.....Continued

Adare to Attyflin Earthworks

- It was decided to proceed with earthworks elements of the section in advance of the main construction contract (Adare to Attyflin Construction Contract) to fully avail of the “earthworks season” and de-risk one of the significant risks on the critical path.
- The fully constructed embankments allowed the main contractor to immediately commence construction of the remaining elements soon after Contract award.

Foynes to Limerick Road (including Adare Bypass)

The EAG were involved in key decisions that contributed to a successful outcome, including:.....Continued

Adare to Attyflin Earthworks - Photos



Foynes to Limerick Road (including Adare Bypass)

The EAG were involved in key decisions that contributed to a successful outcome, including:.....Continued

Adare to Attyflin Section - General

- It was decided to undertake the detailed design of the Adare to Attyflin Section soon after the decision to construct the section was taken in early 2025 and prepare an “employer design” contract for that purpose.
- It was decided, in early 2025, to construct the only road bridge (UB11) on the section as a variation to the Adare Bypass Contract.

Foynes to Limerick Road (including Adare Bypass)

Outcomes

The formation of the EAG was beneficial for the following reasons:

- In line with the original stated aims for the EAG, the Group brought their wide experience to bear during the formulation of the contract documents.
- The programme for delivery was highly ambitious and the Group advised on various ways that the procurement process, and the contract, could facilitate a contractor in the expeditious delivery of the works.
- Members of the Group were called on to review certain contract/tender documents and to provide comments on same for consideration by the project team.
- Members of the Group assisted in the Due Diligence Check of the tender documents as required by the TII Project Management Guidelines/Manual.

Thank you



Tionscadal Éireann
Project Ireland
2040



Bonneagar Iompair Éireann
Transport Infrastructure Ireland



An Roinn Iompair
Department of Transport



Mid West
National Road Design Office



Comhairle Cathrach
& Contae **Luimnigh**

Limerick City
& County Council

Limerick City And County Council

Adare Bypass: Enabling Works, Innovations and Preparing for Construction

Ultan Heffernan, Client Project Manager for the Adare Bypass

Foynes to Limerick Road (including Adare Bypass)

Adare Bypass – Enabling Works, Innovations and Preparing for Construction

Presented by:

Ultan Heffernan, Adare Bypass, Client Project Manager, Limerick City and County Council

TII Annual Conference

Date: 01st October 2026

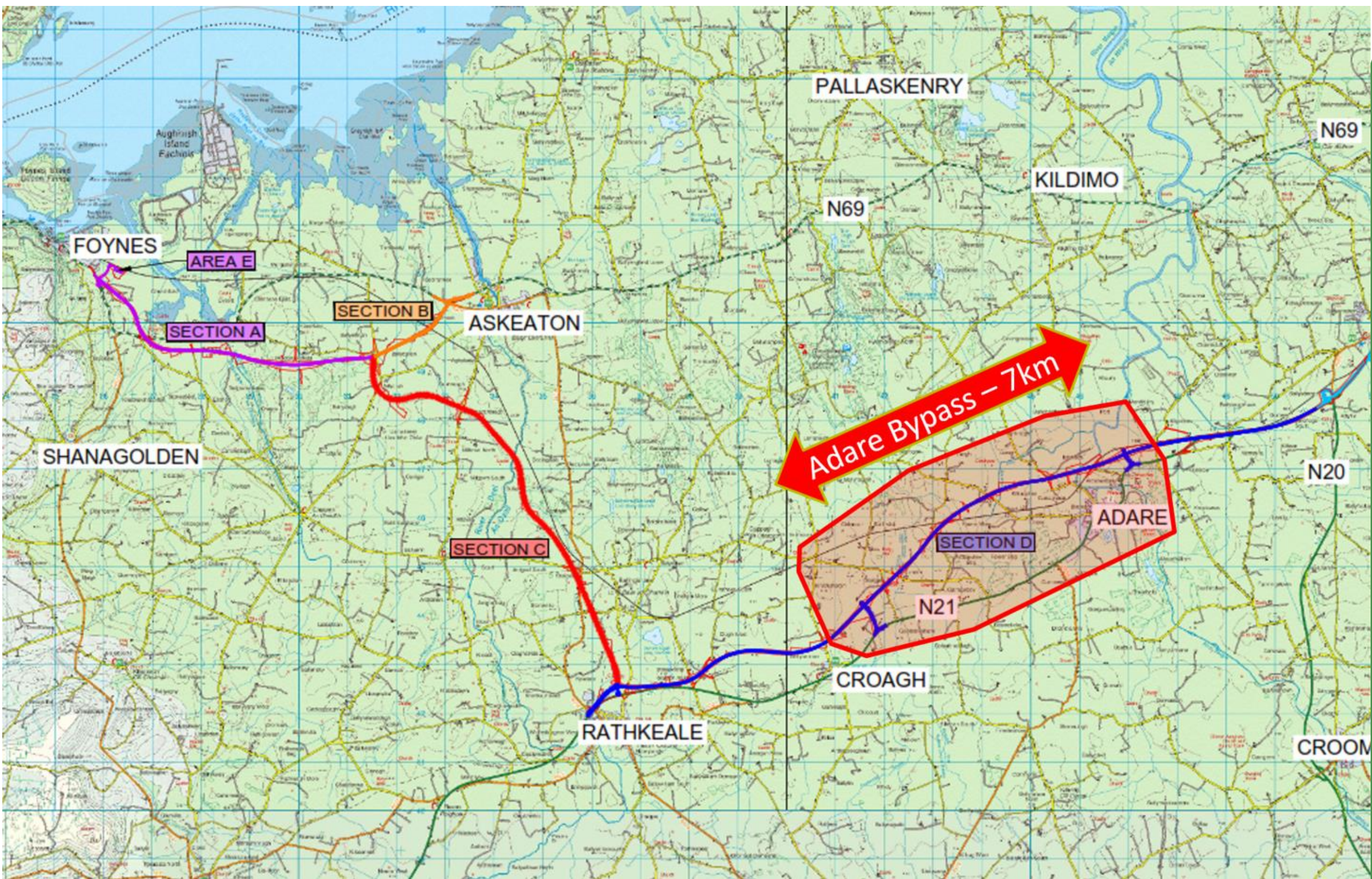
Time: 11:55am

Venue: Greenhills Hotel, Ennis Road, Limerick

Adare Bypass Design and Construction Contract:

Scheme Introduction

The Adare Bypass forms part of the overall Foynes to Limerick Road (including Adare Bypass) Scheme

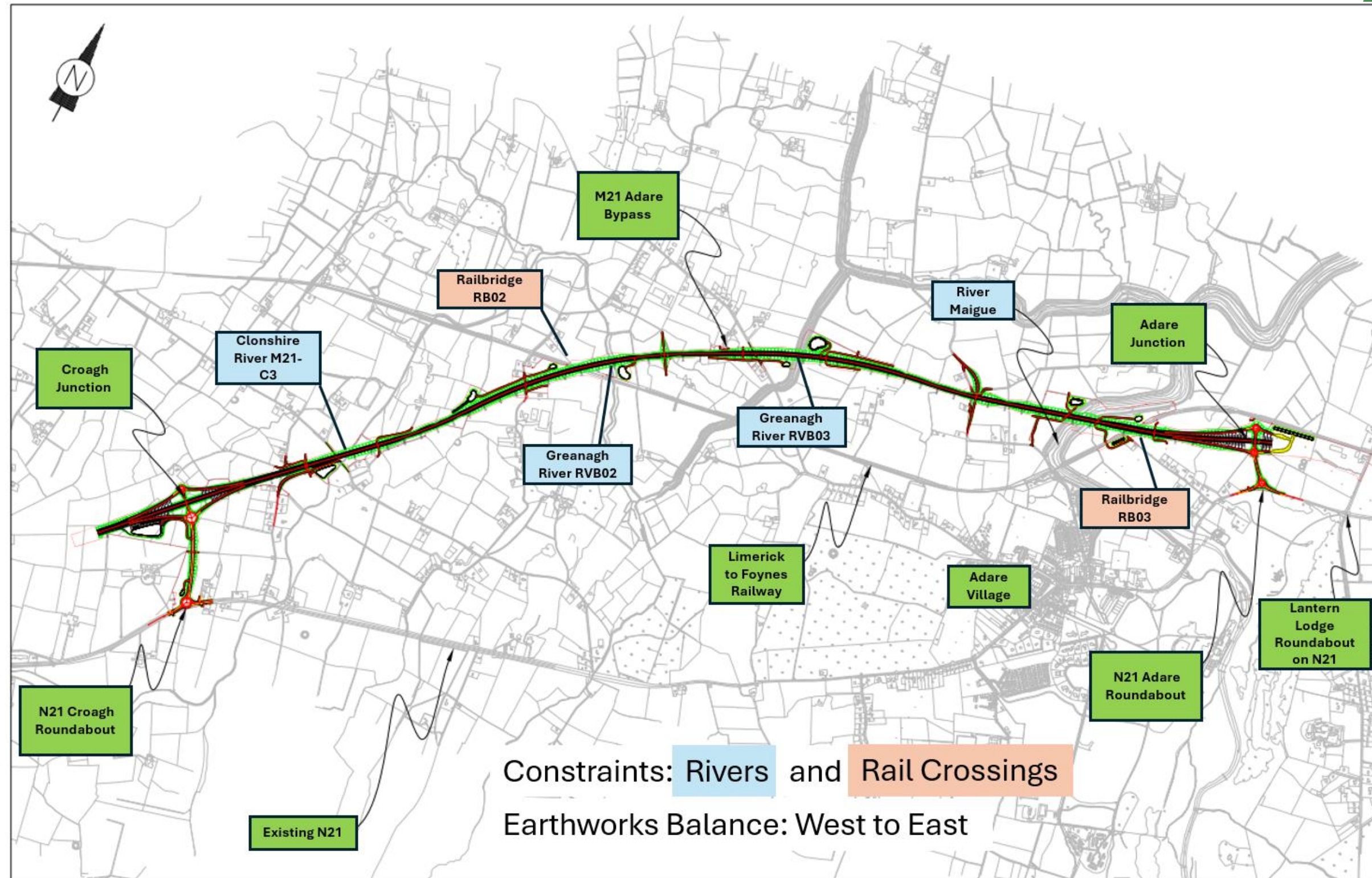


Adare Bypass Design & Construction Contract – Scheme Constraints

Items to consider when establishing Enabling Works Contracts

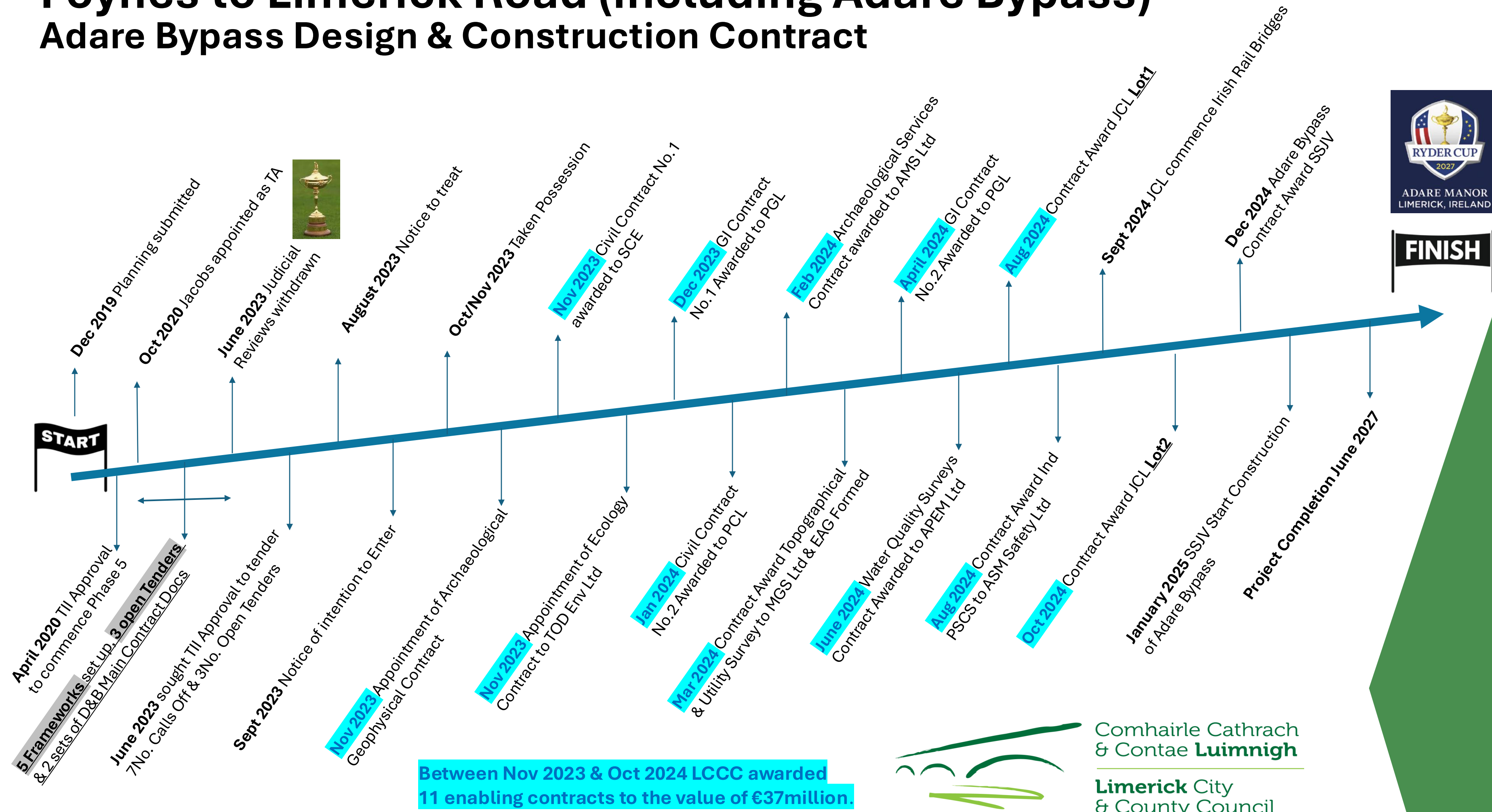
Project Constraints:

- **Physical:** rivers, rail, roads, utilities,
- **Logistical,** site access, permitted haul routes, Earthworks Mass Haul
- **Environmental,** IFI, OPW, Local Authorities
- **Ecological,** NPWS, ecological survey & working windows
- **EIAR** Commitments, Noise, Vibration
- **Oral Hearing** Conditions
- **Archaeological,** sites of archaeological interest
- **Existing Businesses,** commercial or agricultural
- **Procurement,** tender preparation, evaluation & award
- **Resources,** internal and external



Foynes to Limerick Road (including Adare Bypass)

Adare Bypass Design & Construction Contract



Foynes to Limerick Road (including Adare Bypass) Enabling Works Contracts

LCCC sought TII Approval to tender 7 No. Framework Call Off Contracts and 3 No. Open Tenders in June 2023

1. **Civil Works** – 2 No. Call Off Contracts, Sorensen Civil Engineering & Priority Construction
2. **Ground Investigation** – 2 No. Call Off Contracts, Priority Geotechnical
3. **Topography** – 1 Call Off Contract: Survey, Murphy Geospatial
4. **Ecological Surveys** – 1 Call Off Contract, O'Donnell Environmental
5. **Water Quality Surveys** – 1 Call Off Contract, APEM



In addition to the above frameworks LCCC prepared open tenders for the following contracts;

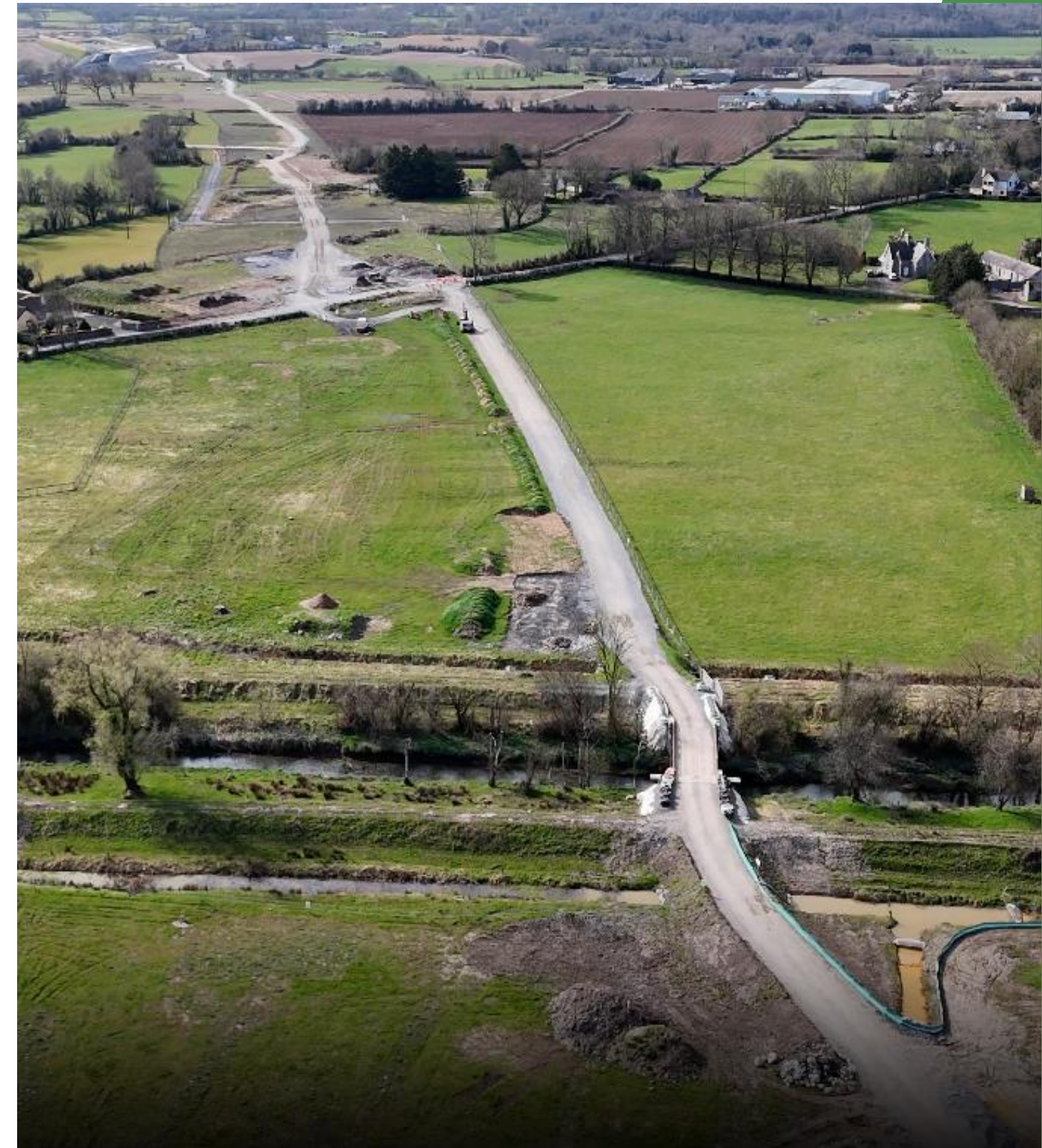
6. **Archaeology Geophysical Contract:** Irish Archaeological Consultancy
7. **Main Archaeology Services (Stage I to IV) Contract.** Archaeological Management Solutions
8. **Independent PSCS,** AMS Group
9. Irish Rail Bridges Contract (Tendered by Irish Rail on behalf of LCCC, John Cradock Ltd)



Foynes to Limerick Road (including Adare Bypass) Enabling Works Contracts

Civil Works – 2 No. Call Off Contracts:

Site Clearance, fencing, demolition, haul roads, bailey bridges, utility diversions, temporary farm underpass, environmental barriers.



Foynes to Limerick Road (including Adare Bypass) Enabling Works Contracts

Civil Works – 2 No. Call Off Contracts:

Site Clearance, fencing, demolition, haul roads, bailey bridges, utility diversions, temporary farm underpass, environmental barriers.



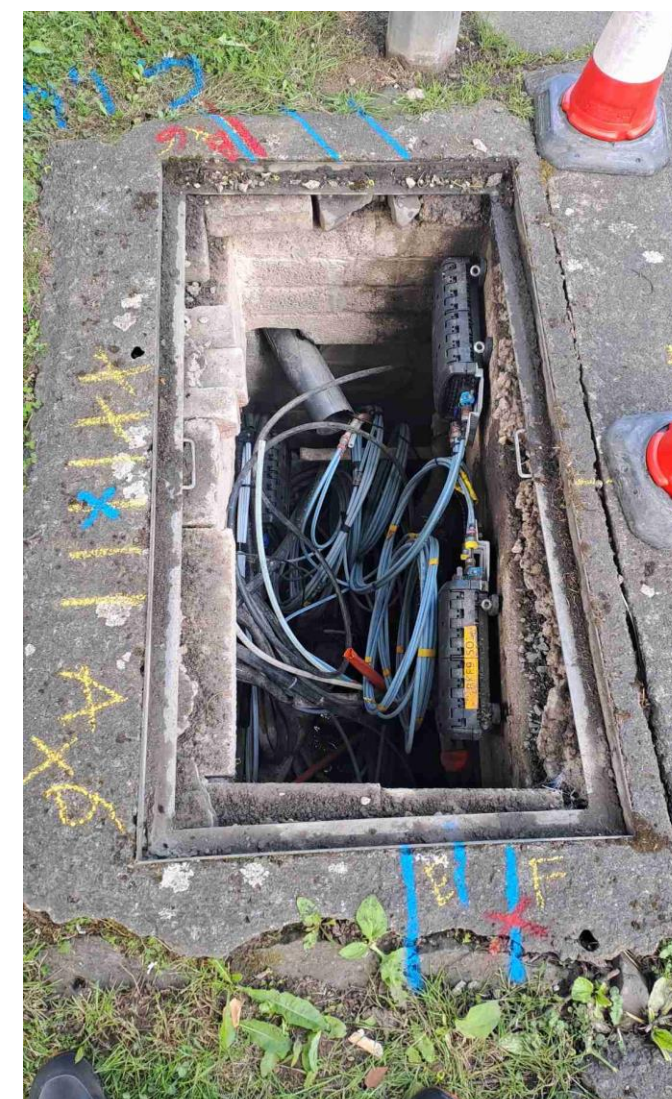
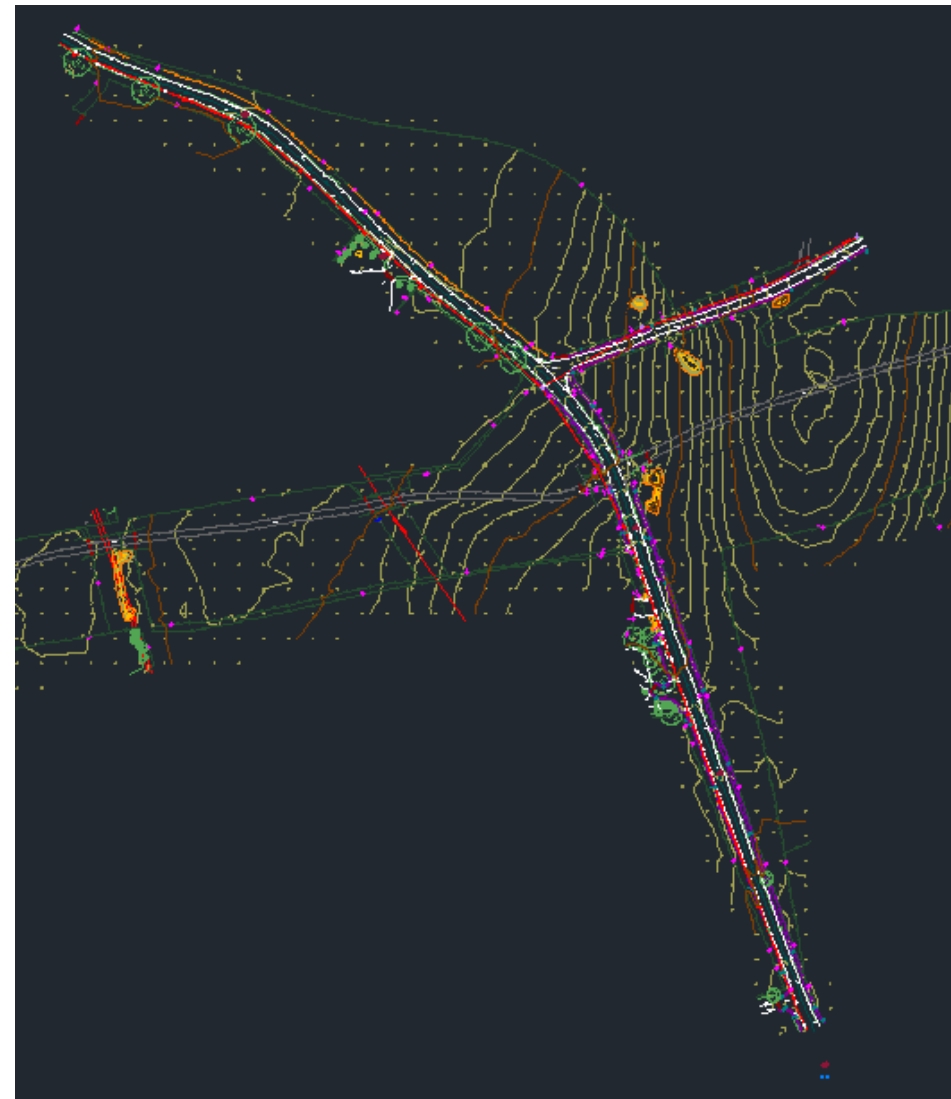
Foynes to Limerick Road (including Adare Bypass) Enabling Works Contracts

Ground Investigation – 2No. Call Off Contracts to inform detailed design and specimen design.



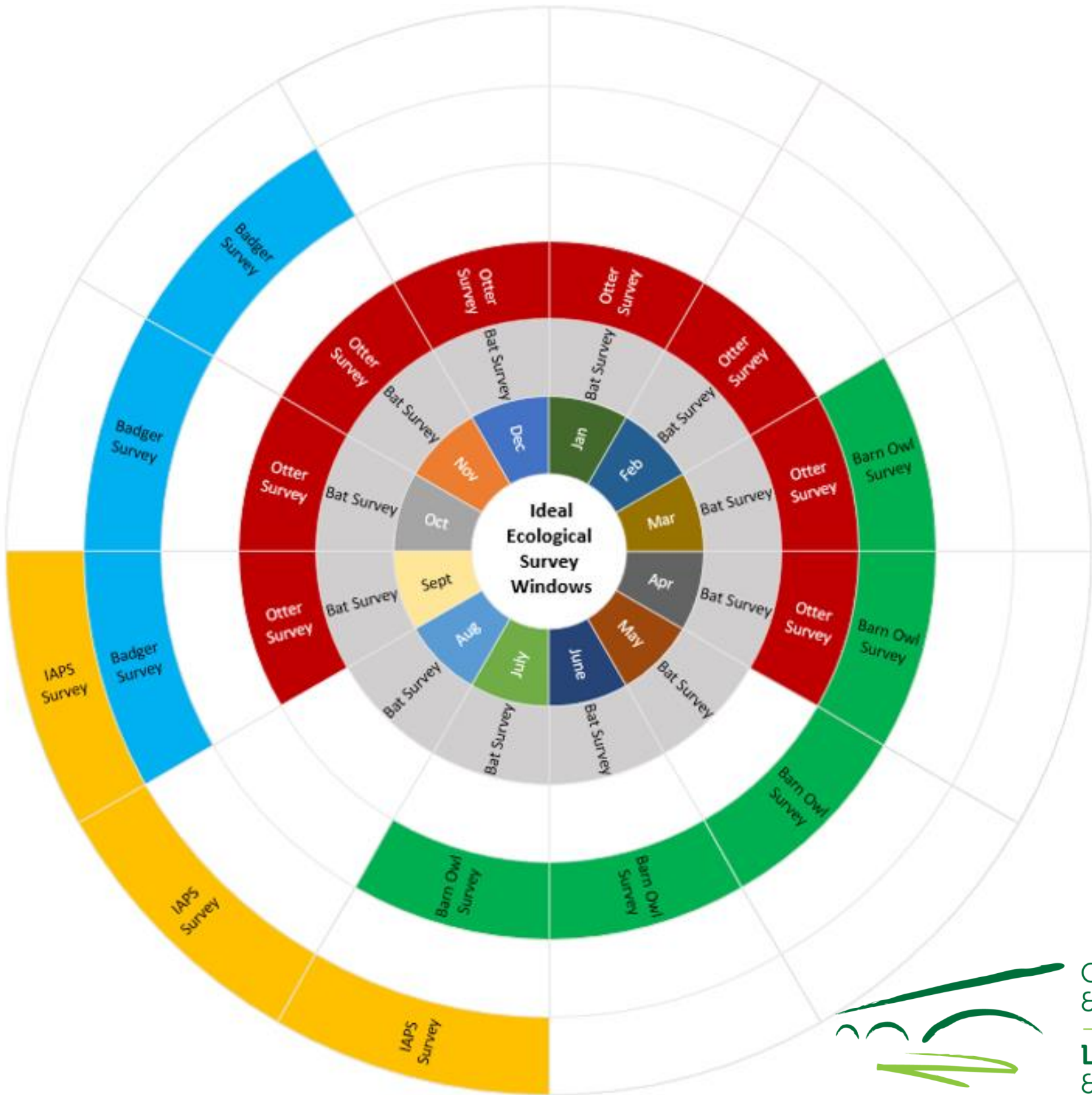
Foynes to Limerick Road (including Adare Bypass) Enabling Works Contracts

Topographical & Underground Utility Services Survey – 1 Call Off Contract: Survey to attain a 3D ground model and locate existing utility services to inform detailed design and the specimen design.



Foynes to Limerick Road (including Adare Bypass) Enabling Works Contracts

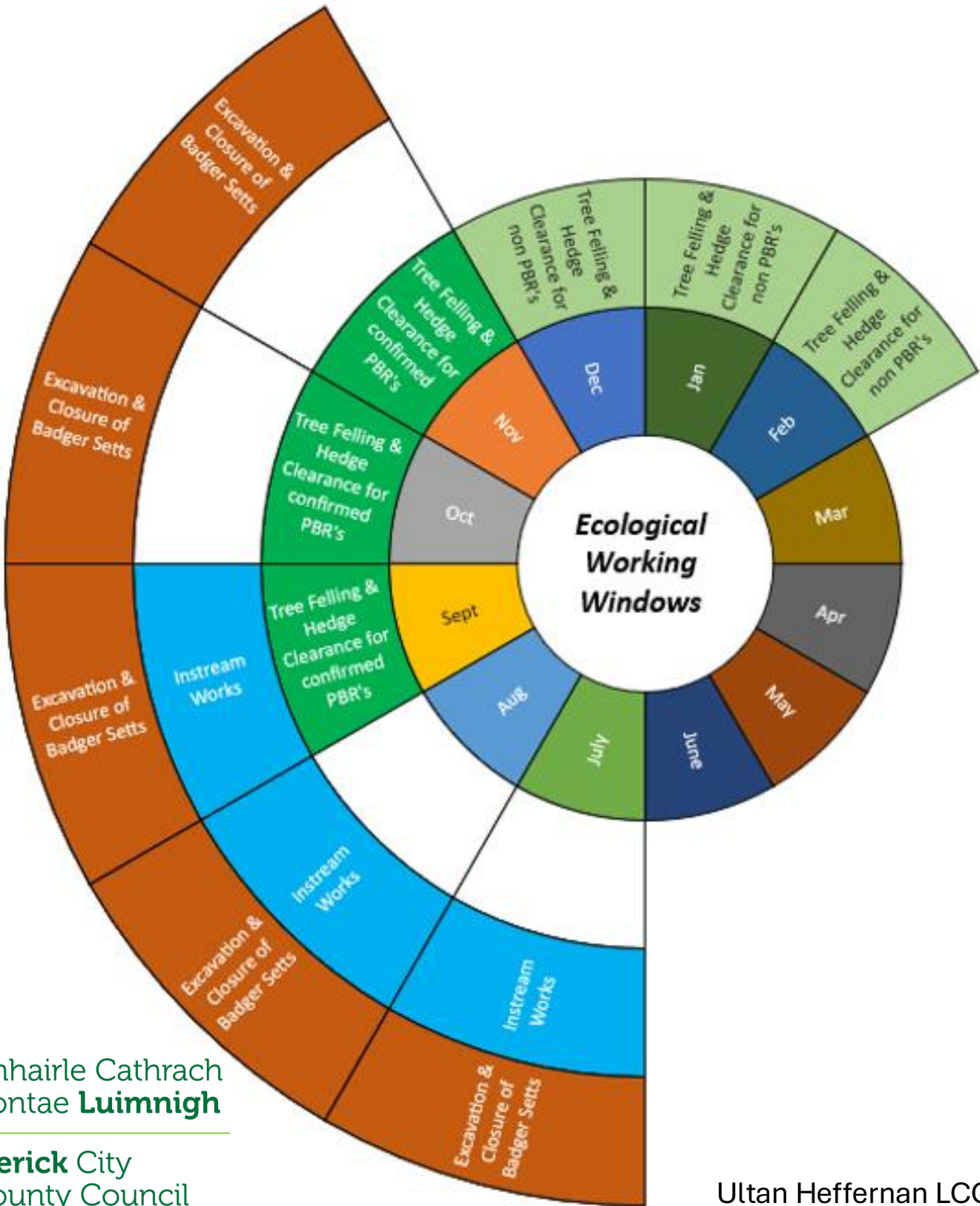
Ecological Surveys – 1 Call Off Contract: to complete pre-construction surveys and attain NPWS Derogations.



Comhairle Cathrach & Contae **Luimnigh**
Limerick City & County Council



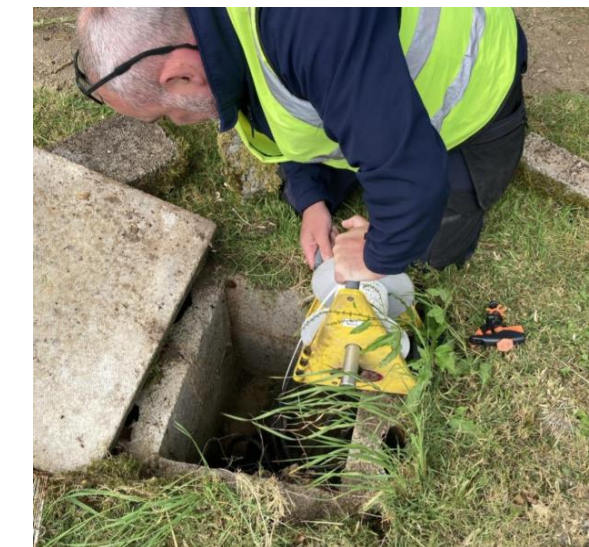
Application for Derogation
Under Regulation 54 & 54A of the
European Communities
(Birds and Natural Habitats) Regulations
2011, as amended



Ultan Heffernan LCCC

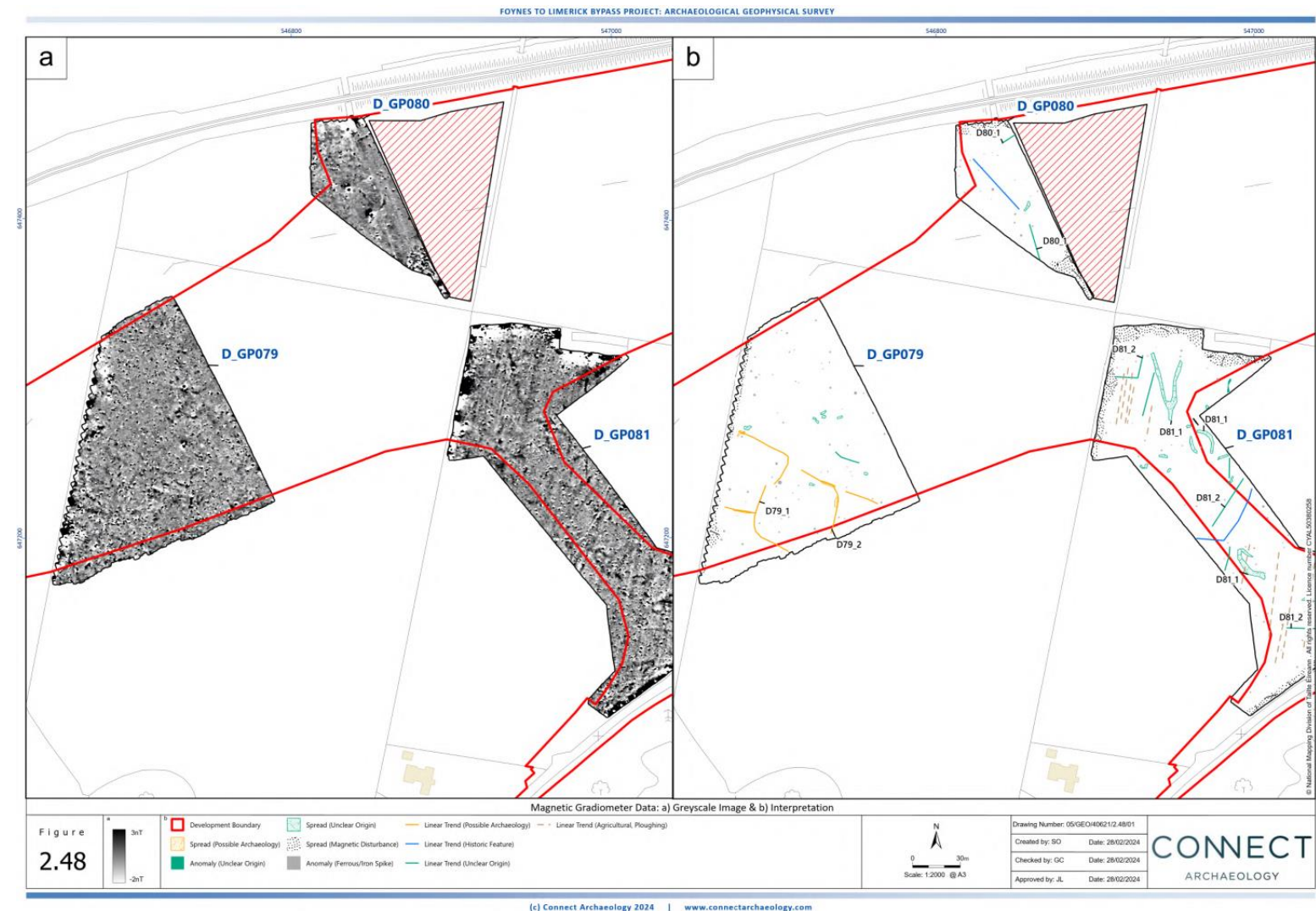
Foynes to Limerick Road (including Adare Bypass) Enabling Works Contracts

Water Quality Surveys – 1 Call Off Contract: To provide 12 month pre-construction test results for wells and surface water.



Foynes to Limerick Road (including Adare Bypass) Enabling Works Contracts

Archaeology Geophysical Contract: To inform the Main Archaeology Services Contract & identify sites of archaeological interest.



Foynes to Limerick Road (including Adare Bypass) Enabling Works Contracts

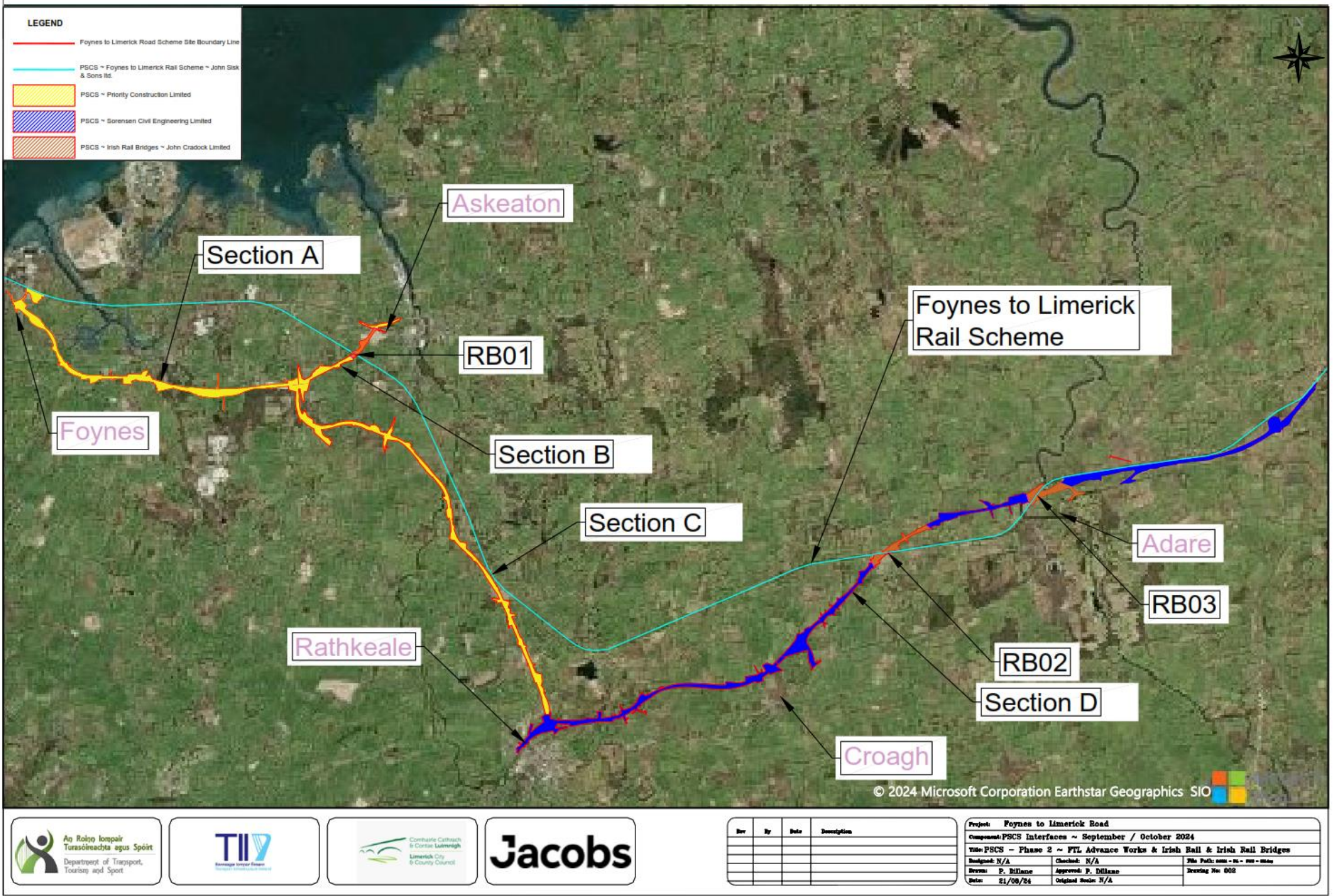
Main Archaeology Services (Stage I to IV) Contract. Archaeology investigation & resolution for the entire FTLRAB Project.



Foynes to Limerick Road (including Adare Bypass) Enabling Works Contracts

Independent PSCS

- The role of the independent Project Supervisor Construction Stage (PSCS) was to co-ordinate the health and safety amongst the various enabling works contractors operating across the site.
- This was achieved through monthly co-ordination meetings and signed PSCS interface agreements between the various Contractors.



Irish Rail Bridges Contract

The FTLRAB Project required 3 no. “road over rail” bridges, 2 no. on the Adare Bypass.

RB02 & RB03 were identified as a critical interface and a key component of the delivery strategy.

Designed by Jacobs on behalf of LCCC.

Iarnód Éireann tendered (April 2024), procured, and administered the Contract on behalf of LCCC.

Iarnód Éireann also procured the precast reinforced earth panels, bridge beams and bridge parapets for free issue to the contractor upon appointment. LCCC provided haul roads, compound area and utility connections

A 14-month Construction period - September 2024, to October 2025

Removed a significant interface with the Limerick to Foynes Rail Line.

Completion of the three Bridges on time and on budget is a testament to the ongoing collaboration between LCCC and Iarnód Éireann.



Railbridge RB02 Gortnagrour Adare - Lot1



Railbridge RB03 Ardshanbally Adare – Lot2

Thank you



SISK/SORENSEN JV

NEC: Enabling Adare Bypass Delivery – a Contractor Perspective

Paraic McCarthy, Project Director



A JOINT VENTURE

New Engineering Contract (NEC) Enabling the Adare Bypass Delivery – A Contractor's Perspective

**Paraic McCarthy – Operations Director Sorensen Civil
Engineering and Sisk Sorensen JV Project Manager**

TII Annual Conference

Introduction

- **Previous Contract Experience**
 - IEI Conditions of Contract
 - Public Works Contracts
 - Joint Contracts Tribunal (JCT) Design and Build
 - FIDIC – Yellow Book (Design and Build)
 - Royal Institute of Architects of Ireland
 - PPP Contracts
 - NEC Option C and others
-

Introduction

- **Adare Bypass**
 - 7km motorway bypass of Adare Village.
 - Design and Build Contract awarded to Sisk Sorensen Joint Venture in December 2024
 - Tender Target cost €175m (inc VAT)
 - Starting date of 06 January 2025.
 - Completion date set at 30 June 2027.
 - Needs to be complete ahead of the Ryder Cup in September 2027 - Unusual for a project to have a fixed completion date.
 - High profile project – major reputational damage if unsuccessful.



Scope of the Works

- 7km long motorway project
- 25 structures – 3 Overbridges, 4 Underbridges, 3 River Bridges, River Maigue Bridge, 7 Underpasses, 5 Flood Relief Culverts, 2 Stream culverts.
- Earthworks – 1.2m m3 of fill, 0.7m m3 of cutting. Aviva enclosed volume 1.5m m3 approx.
- Surfacing – 150,000m2 of pavement (12 GAA pitches)
- Drainage – 17km of drainage pipelines
- Noise Barrier – 7.6km of noise barriers



Critical Path – 200m wide River Maigue Structure. Steel beams - Procure/Design/Manufacture/Transport/Site Assembly

Form of contract

- **NEC 4 – Option C. Target contract with Activity schedule**
 - Engineering and Construct Contract (Design and Build)
 - Target contract with Activity Schedule – Target cost submitted as part of the tender.



© Photos taken by Tom Cookley, Barrow Cookley Photo & Video Ph: 0872856527 Date: 20th May 2026

New Engineering Contract

- **Advantages**
- Stimulates good management of the relationship between the two parties to the contract
- Clear, simple and written in plain English
- ‘Early warning’ process. If either party becomes aware of any matter which could affect time, cost or quality, they are required to notify the other party immediately
- Open Book – Transparent, encourages openness and honesty.
- Promotes quicker delivery and encourages parties to beat the Tender Target Cost



© Photos by Tom Coakley, Barrow Coakley Photo & Video - Ph: 0872856527 - Date: 12th August 2026

Tender

- Instructions to Tenderers
 - Deliverables – Form of Tender, Contract Data Part 2, Quality Submission, Activity Schedule
 - Award Criteria
 - 70% Quality
 - 20% Price
 - 10% for Fee Percentage (allowable range 7 – 20%). Fee includes bond and insurances
 - Pain Gain Clause Included



If Option C or D is used		The Contractor's share percentages and the share ranges are					
	share range					Contractor's share percentage	
	less than	80			%	50	%
	from	80	% to	120	%	50	%
	greater than	120			%	100	%

Contract Data Part 1 – Data provided by the client

- 1. General – Sets out the Main Option and the secondary clauses that make up the contract.
- Secondary Clauses relevant to the Adare Bypass – **Chosen by the Client**
 - X1 – Price Adjustment for Inflation
 - X2 – Changes in law
 - X7 – Delay damages
 - X8 – Undertakings to the client



Contract Data Part 1 – Data provided by the client

- X9 – Transfer of Rights
- X11 – Termination by client
- X13 – Performance Bond
- X15 – Contractor's Design
- X16 - Retention
- **X18 – Limitation of Liability**
- X21 – Whole Life cost



© Photos by Tom Cookley, Barrow Cookley Photo & Video - Ph: 0872855527 - Date: 12th August 2024

Contract Data Part 1

- **Z Clauses – Additional Conditions of Contract**
- **15 no. Z clauses amounting to 5 no. A4 pages**
- **Some Z clauses are to allow for Irish Legislation e.g. Z15 Pay and Conditions of employment**
- **Lightly amended contract**



Some Important Contract Clauses

- 10.1 – The Parties, the Project Manager and the Supervisor act in a **spirit of mutual trust and co-operation**.
 - 15.1 – The Contractor and the Project Manager give an early warning by notifying the other as soon as either becomes aware of any matter which could increase the total of the prices, delay Completion, delay meeting a Key Date or impact on the performance of the works in use.
 - 26.2 – The Contractor submits the name of each proposed Subcontractor to the Project Manager for acceptance.
 - 32.2 – The Contractor submits a revised programme to the Project Manager for acceptance no longer than monthly.
 - 36.1 – Acceleration – Contractor can be asked to provide a quotation
 - 60 Compensation Events – lists events that allow an increase in the Target cost and the time for completion.
-

Target Cost

- **How Target Cost Works**
- **Defined Cost:** The contractor is paid actual costs incurred (called "Defined Cost") that are justified through open-book record reviews.
- **The Fee:** A pre-agreed fee is added to cover overheads and profit.
- **The Target:** Parties set an initial target cost, which adjusts during the project for compensation events or authorised scope changes.
- **Pain/Gain Share:** Final actual costs are compared to the adjusted target.



© Photos by Tom Coakley, Barrow Coakley Photo & Video - Ph: 0872856527 - Date: 12th August 2026

Risks Remaining with contractor

- **Completion on time – Liquidated Damages Risk/Reputational Damage**
 - **Cost Overrun (shared)**
 - **Defects in Design**
 - **Defects in Construction**
 - **Aggregate Limit of Liability**
 - **Disallowed Costs**
 - **Physical Conditions – “...difference between the physical conditions encountered and those for which to would have been reasonable to have allowed for....” – “...such a small chance of occurring...”**
 - **Weather – Compensation Event for extreme weather as per the Public Works Contract**
-

Client/Project Manager/Supervisor/Contractor

- **Approach/Mindset/Behaviours**
 - Critical to the success of a project. In particular Client Team.
 - Client Team should have an Appropriate Risk Appetite.
 - Agree to disagree is ok.
 - Schedule 5 – Certification Process.
 - One Team, one goal.
 - **Rejected CE Forum**
 - Worked Well on Adare Bypass.
 - **Time**
 - Quick decisions are critical to saving time and cost.
 - One Contractor's Proposal on Adare required a clause 16.3 agreement. It took 6 months to agree and in the interim additional material had to be imported, increasing cost. The long approval process reduced the benefit of this proposal to the contractor and ultimately the project.
-

Value Engineering

- **Under NEC called Contractor's Proposals**
 - **No reduction to the target so and saving is shared 50/50 Contractor/Client**
 - **Benefits can include reduced cost, shorter programme, reduced embedded carbon used for the scheme.**
 - **Cost/Value**
 - **Contractor very focused on gain share and reducing cost. Does PM and client have the same focus?**
 - **Examples – River Maigue Bridge amended pile cap and amended steel beam joint locations.**
-

New Engineering Contract

- **Early Warning**
- Issues raised on CEMAR – contract administration software.
- Fortnightly meetings to discuss EWs, assign actions and ensure actions are completed.
- Adare example – Capacity constraints at Croagh and Adare N21 roundabouts.



© Photos by Tom Coakley, Barrow Coakley Photo & Video - Ph: 0872856527 - Date: 12th August 2026

Summary

- NEC Contracts are written to allow a fair allocation of risk – the Adare Bypass contract has been prepared, following this principle and has been lightly amended.
 - NEC Contracts promote collaboration and working together – excellent relationships on the Adare Bypass. Client/PM/Supervisor and Contractor mindset is to work together towards the shared goal – opening of project in 2027, ahead of the Ryder Cup.
 - NEC Contracts Early Warning Process ensures issues or potential issues are raised and dealt with immediately – both the Contractor and the Project Manager raise early warnings on the Adare Bypass immediately when they become aware of issues. Parties work together to manage and close these items out.
 - The Fee percentage “collar” at 7% is too low.
 - Plenty of examples of failed NEC Option C contracts in the UK & abroad
 - Unrealistic TTC
 - Wrong approach/people (both sides)
 - Missing Key ingredients
-

Thank You



DEPARTMENT OF TRANSPORT

Ministerial Address

Seán Canney TD, Minister of State at the Department of Transport

Session 2: Enhanced Regional Connectivity

Q&A

Chair: Tim Fitzgerald, Senior Engineer, Mid-West National Road Design Office

- **Ultan Heffernan**, Client Project Manager for the Adare Bypass
- **Gerard Carey**, Project Manager for the M21/N69 Foynes to Limerick Road Scheme
- **Paraic McCarthy**, Project Director for Sisk/Sorensen JV

Lunch

Session 3 starting at 2:15pm

