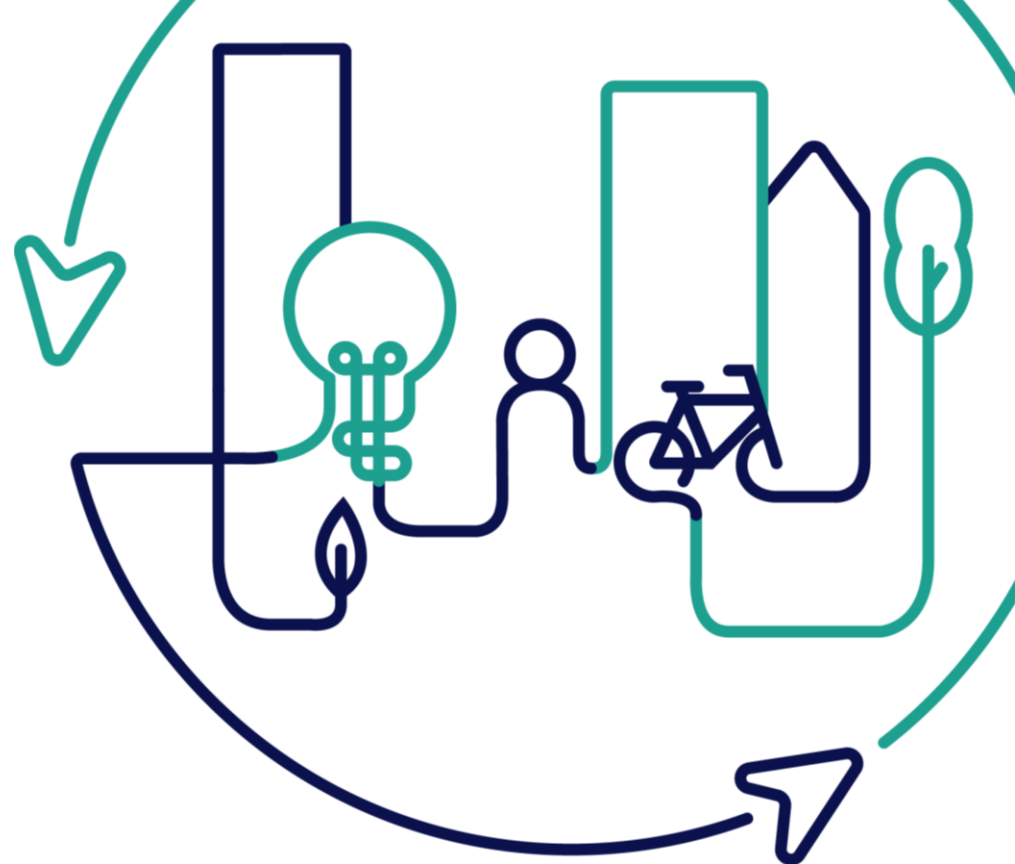


# EUROPEAN U R B A N INITIATIVE



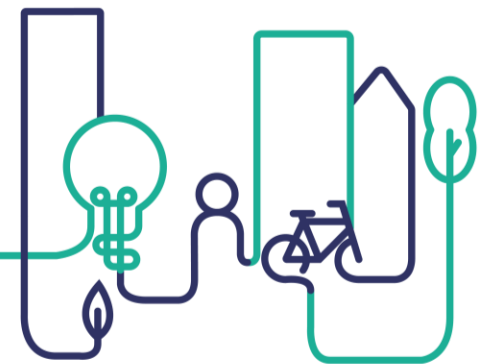
Co-funded by  
the European Union

# Parallel Workshops: Design and Delivery – Operational solutions for creative regeneration

Wednesday 26<sup>th</sup> November 2025 – 14.00 to 15.30

Facilitated by Matthew Baqueriza-Jackson and with:

- Portumna Courthouse, Portumna, Galway
- Cultuurcampus, Rotterdam



Co-funded by  
the European Union



# Session Aims

1

To understand the technical challenges facing 2 regeneration projects (Portumna Courthouse, Galway) and (Cultuurcampus, Rotterdam)

2

To discuss in groups those technical challenges and co-produce potential solutions

3

To share the potential solutions with the 2 regeneration projects and discuss what happened in reality

4

To apply learning to your local contexts in Ireland



# Session Plan

**14:00**

**Introduction**

**14:05**

**Case Study Presentations  
(Challenges)**

**14:25**

**Group Activity**

**14:55**

**Feedback and Discussion**

**15:15**

**Case Study Response  
(Solutions)**

**15:25**

**Wrap Up**



# The General Technical Challenges facing Regeneration Projects

- Adapting historic buildings for modern day use
- Energy retrofitting of historic buildings and assets
- Use of digital tools and design innovation
- Use of circular and sustainable materials
- Engineering and construction management

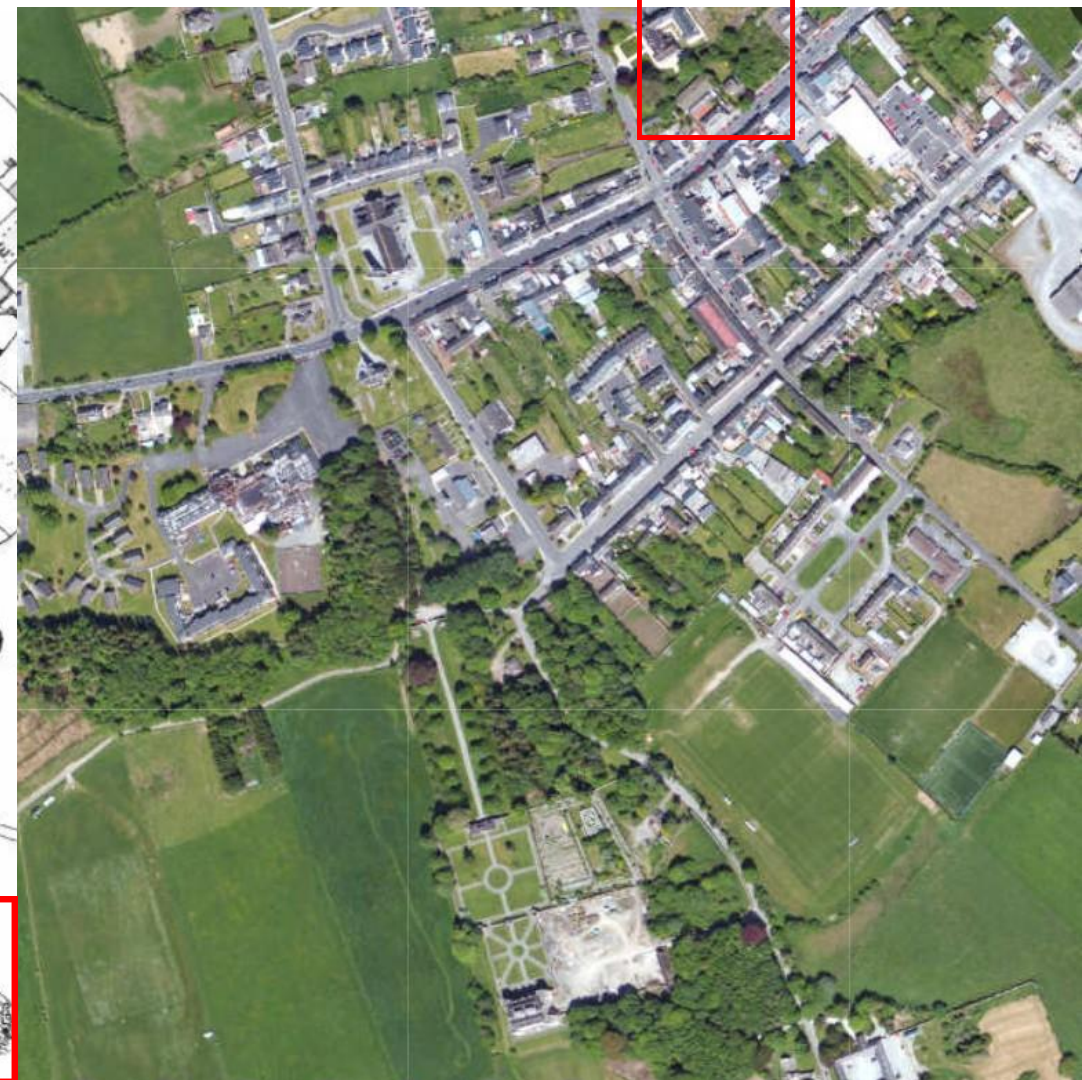
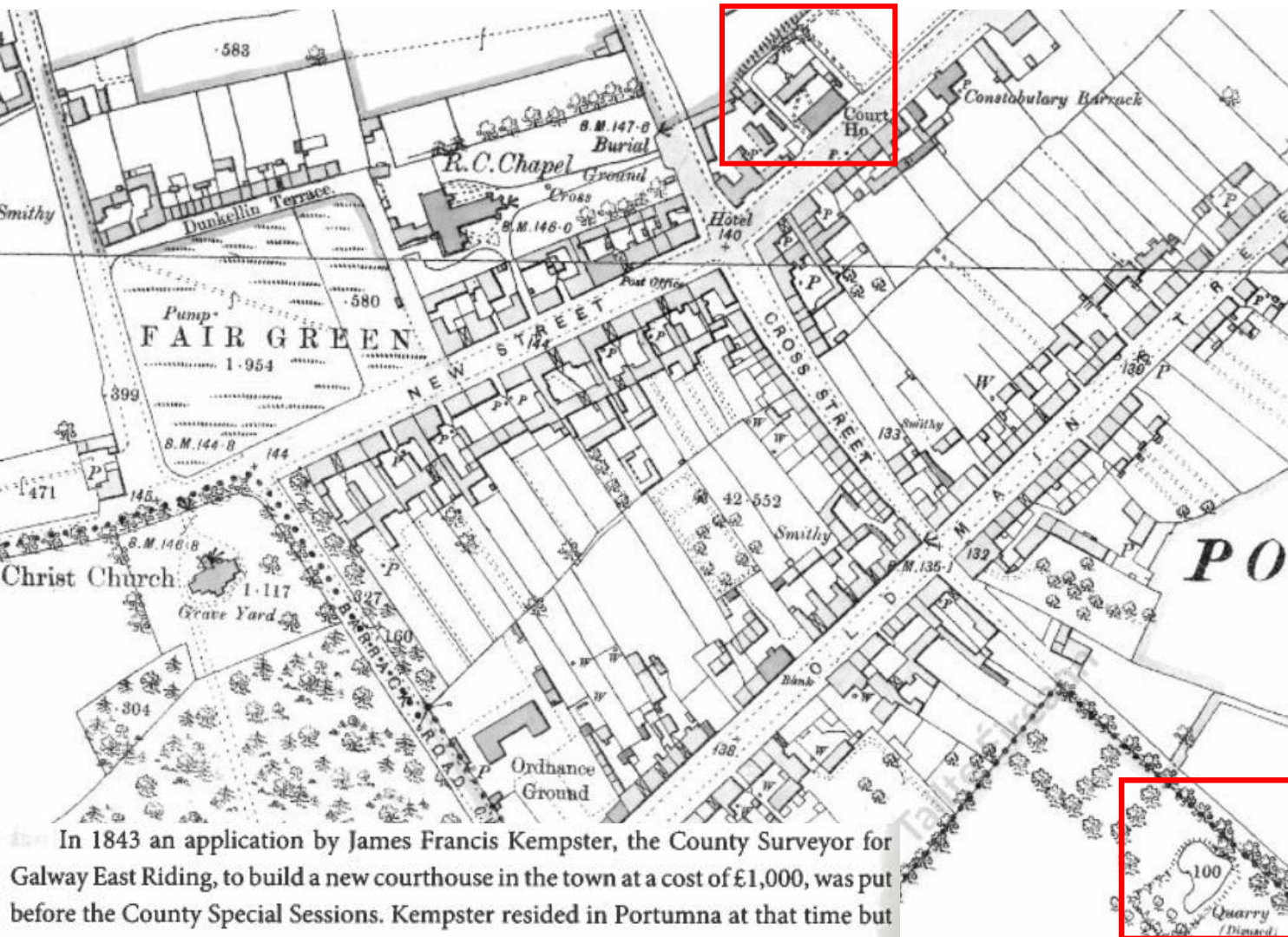


**Let's hear  
from Brent  
& J.P.,  
Portumna  
Courthouse**

# PORTUMNA COURTHOUSE - 1847

## BUILT & CULTURAL CONTEXT

- Architectural statement – prominent cut limestone civic building
- New Street 'gateway' – point of arrival across the Shannon
- Counterpoint to Old Main Street – Portumna Castle
- Proximity to the historic stone quarry

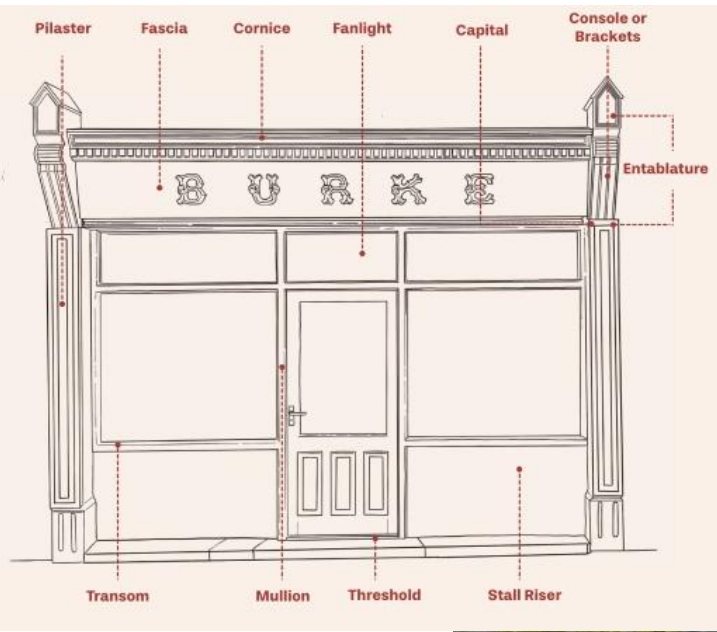


In 1843 an application by James Francis Kempster, the County Surveyor for Galway East Riding, to build a new courthouse in the town at a cost of £1,000, was put before the County Special Sessions. Kempster resided in Portumna at that time but



# BUILT CONTEXT

- Architectural backdrop to our streets – Classical Architecture inspired rhythm and proportion
- Characterised by disciplined rhythm of fenestration openings ordered along the street
- Counterposed by decorative Classically inspired ornate shopfronts
- Principles of Classical Architecture achieve balance and harmony between the constituent elements
- This is the context within which the graceful, restrained, yet elegant Courthouse resides





# CULTURAL CONTEXT

- Prominent building with a commanding presence in the streetscape – impactful
- 4 Bay double storey Neo-Classical Courthouse with advanced end bays – form follows function
- Significant cultural impact since 1847

**PORTUMNA RURAL DISTRICT.**

The COUNCIL of the above District will, at their Adjourned Quarterly Meeting to be held at the Court-House, PORTUMNA, At Twelve o'clock, noon, On SATURDAY, the 10th MAY, 1902, Open and consider

# TENDERS

For the following Works, namely—

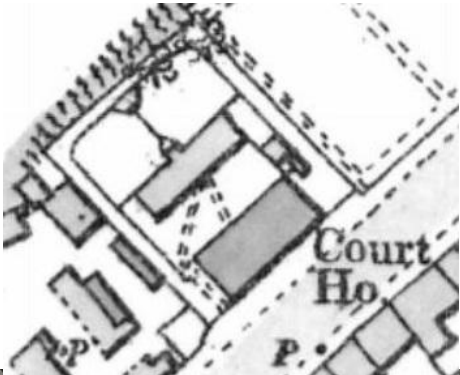
1. To estimate the cost of repairs and alterations to the Court-House, Portumna, and the District Council Offices, Portumna, and to see that the same are carried out. 2. To estimate the cost of repairs and alterations to the Court-House, Portumna, and the District Council Offices, Portumna, and to see that the same are carried out. 3. To estimate the cost of repairs and alterations to the Court-House, Portumna, and the District Council Offices, Portumna, and to see that the same are carried out. 4. To estimate the cost of repairs and alterations to the Court-House, Portumna, and the District Council Offices, Portumna, and to see that the same are carried out.



unverified weight. Guard Kelly had Michael Shiel fined 2s-6d for allowing his underage son to drive a donkey and cart.<sup>18</sup> In 1933 Patrick Callanan was fined 2s-6d for working an unshod donkey.



# SITE COMPOSITION



To the rear of Portumna Court House was the bridewell which served as a short-term prison for offenders. An official inspection of this premises in 1853 found that the building was clean and in good repair but the inspector found a dog in one of the cells and a goat in one of the day rooms. There was no contract for food and the



# THE COURTYARD





# THE CAFE



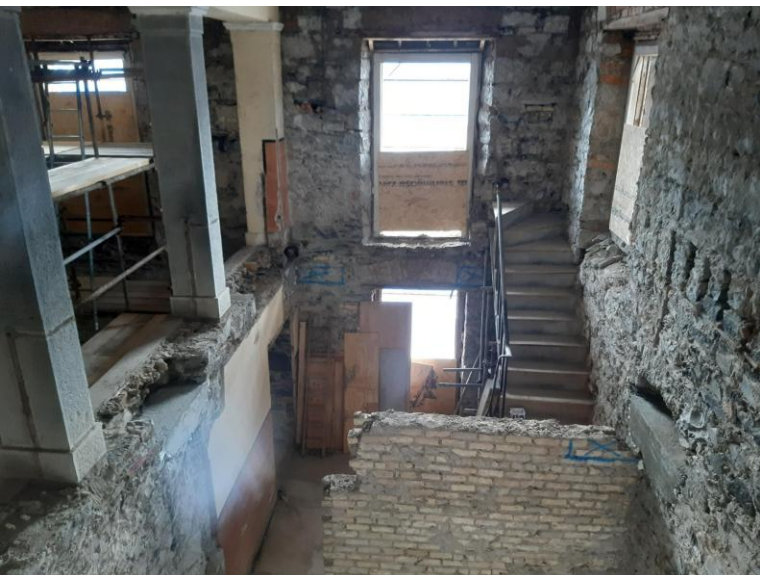


# THE COURT ROOM





# CONFERENCE ROOM





# THE BUSINESS HUB





# TECHNICAL CHALLENGES

## ECOLOGY

Bat activity was detected as part of Ecology survey at Part 8 planning permission stage.



Aerial Image of Courthouse – July 2020



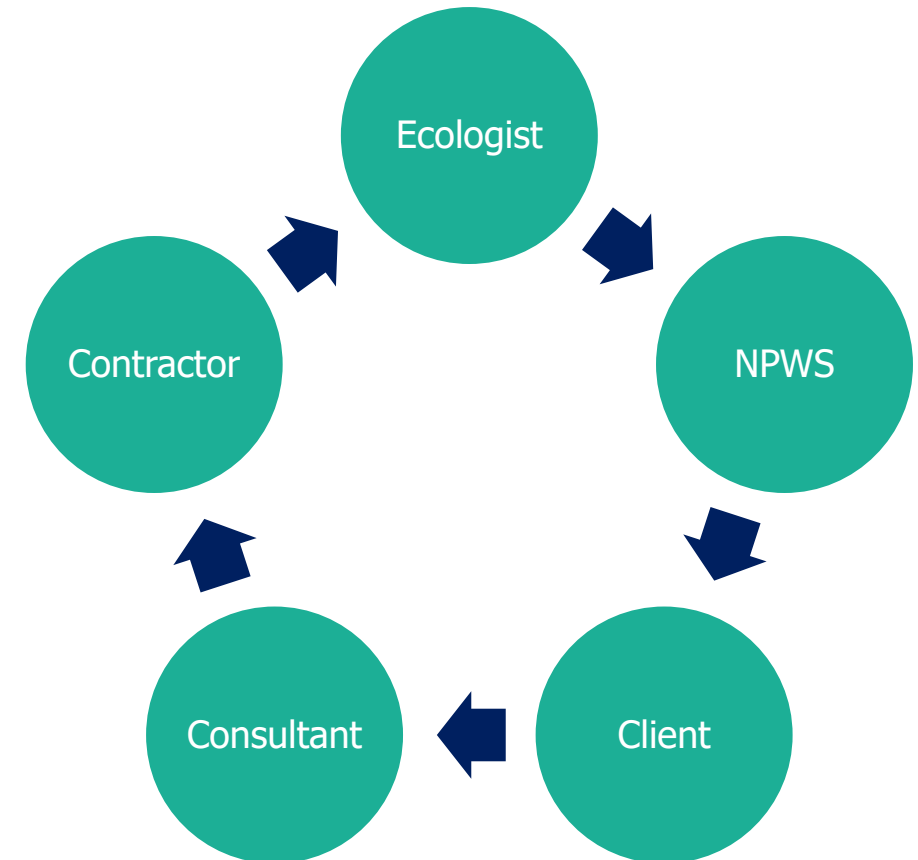
Soprano pipistrelle Bat Detected Exiting Building as Part of 2021 Ecology Survey

# TECHNICAL CHALLENGES

## ECOLOGY

Part 8 planning permission condition stated that:

- *All external lighting (up-lighting and otherwise) of the building shall not be determined or installed until such time as a potential bat roost assessment (PBR) and relevant biodiversity considerations have been carried out by a suitably qualified ecologist in accordance with the Bat Conservation Trust Guidance.*
- *The recommendation of this assessment shall inform the lighting scheme for the development, including suitable location(s) and type of external lighting to be employed, as appropriate.*



Number of Parties Required to Collaborate on Agreeing External Lighting Strategy.

# TECHNICAL CHALLENGES

## ECOLOGY

- Extension granted during tender process resulted in delay in commencing construction works on site by approximately 8 weeks. Commenced Feb. 2024.
- NPWS Derogation licence stipulated that any renovation / demolition works could only be undertaken between 9<sup>th</sup> February and 31<sup>st</sup> March 2024 and must be supervised by Bat Ecologist.
- Not ideal time of year to be stripping the roof of a protected structure!



Environmental Consultants

Bat Survey Report

Portumna Courthouse Redevelopment

Portumna, Co. Galway



Licence No.: DER/BAT 2024 – 40

EUROPEAN COMMUNITIES (BIRDS AND NATURAL HABITATS) REGULATIONS,  
2011 (S.I. No 477 of 2011)

### DEROGATION LICENCE

Granted under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011, hereinafter referred to as "the Habitats Regulations".





# TECHNICAL CHALLENGES

## HIDDEN HERITAGE

Discovery of Original Entrance to Bridewell during Demolition Works.



Demolition of Lean-to Extension on Adjacent Bridewell Unearthed Original Entrance Door & Windows



Close-Up of Original Bridewell Entrance Door & Windows

# TECHNICAL CHALLENGES

## HIDDEN HERITAGE

Discovery of Original Entrance to Bridewell during Demolition Works to Courtyard.

### Technical Challenges:

1. Bridewell building not in client ownership.
2. Cost.
3. Risk of delay to programme.
4. Additional collaboration and coordination required.
5. Clash with proposed services and external furniture.





# TECHNICAL CHALLENGES

## HIDDEN HERITAGE

Discovery of Well in Courtyard During Demolition Works – Not Recorded on Historic OS Maps!



Well on Discovery – Covered with Flag Stone



Early Photo of Exposed Well



Well Located in Centre of Courtyard

# TECHNICAL CHALLENGES

## HIDDEN HERITAGE

Discovery of Well in Courtyard During Demolition Works.

### Technical Challenges:

1. Cost.
2. Risk of Delay to Programme.
3. Collaboration between Conservation Architect and Local Authority Conservation & Heritage Officers.
4. Clash with proposed services, external furniture & landscaping.
5. Protection of groundwater.
6. Risk of flooding.





# TECHNICAL CHALLENGES

## THERMAL UPGRADE

Fabric upgrade to improve thermal comfort

Technical Challenges:

1. Improve thermal efficiency of building without compromising historic fabric.
2. Ventilation
3. Sustainable solutions.

Airtightness V Breathability

Passive Ventilation V Mechanical Ventilation



Condensation present on single glazed windows

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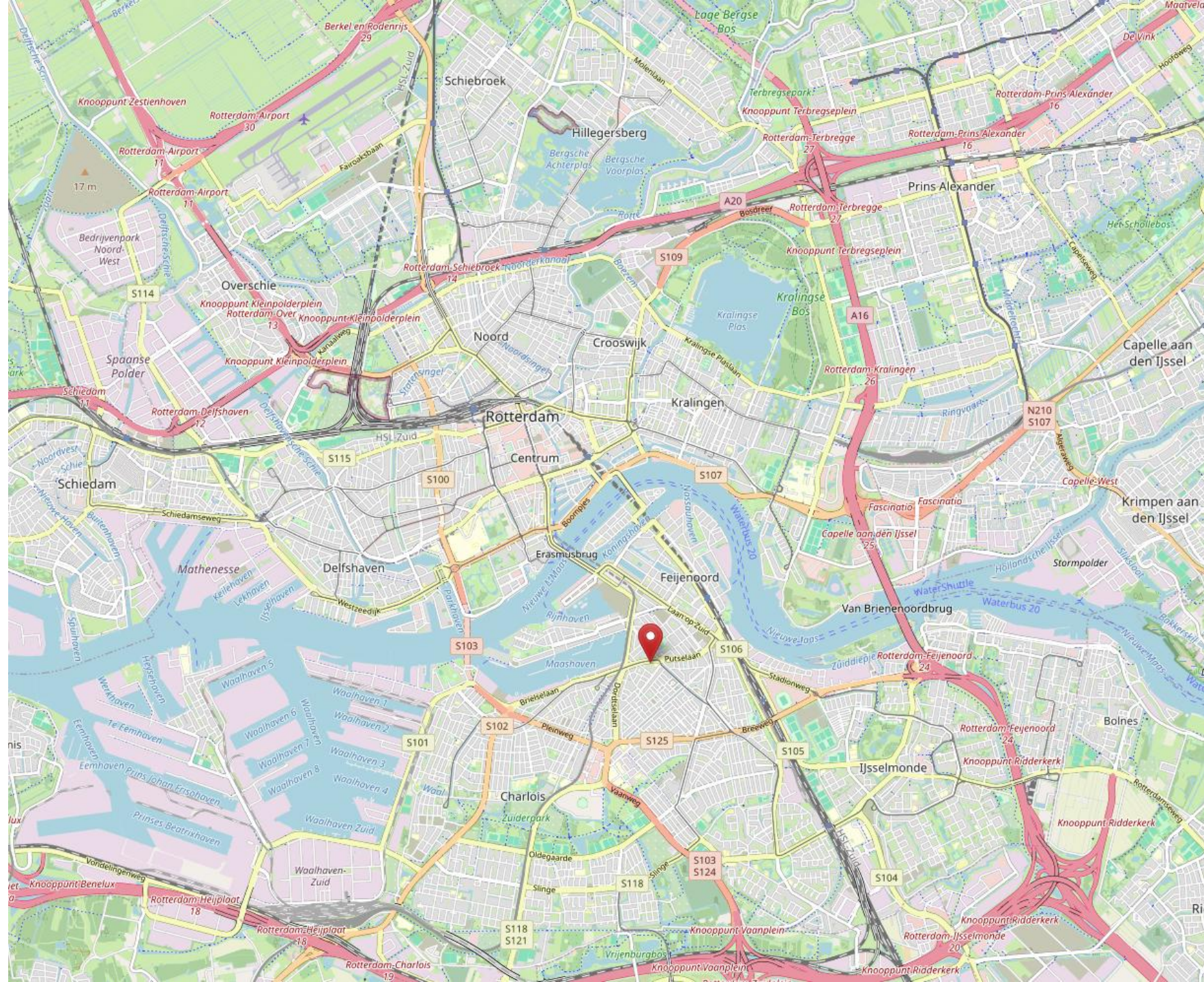
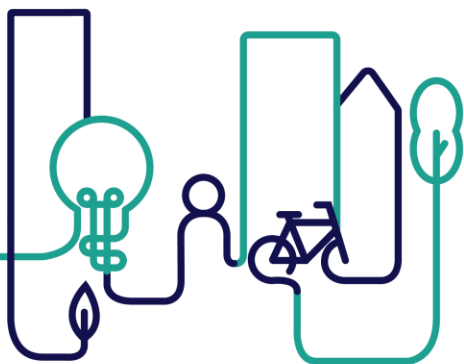
**Let's hear from  
Sebastiaan,  
Cultuur &  
Campus,  
Putselaan**



# C&CP – Location



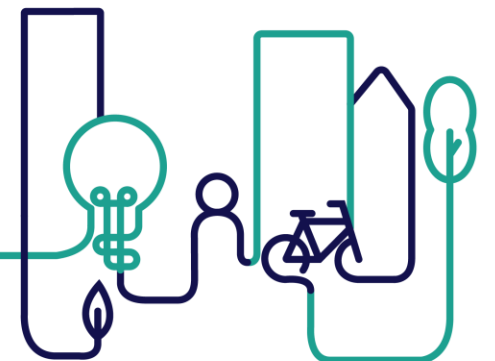
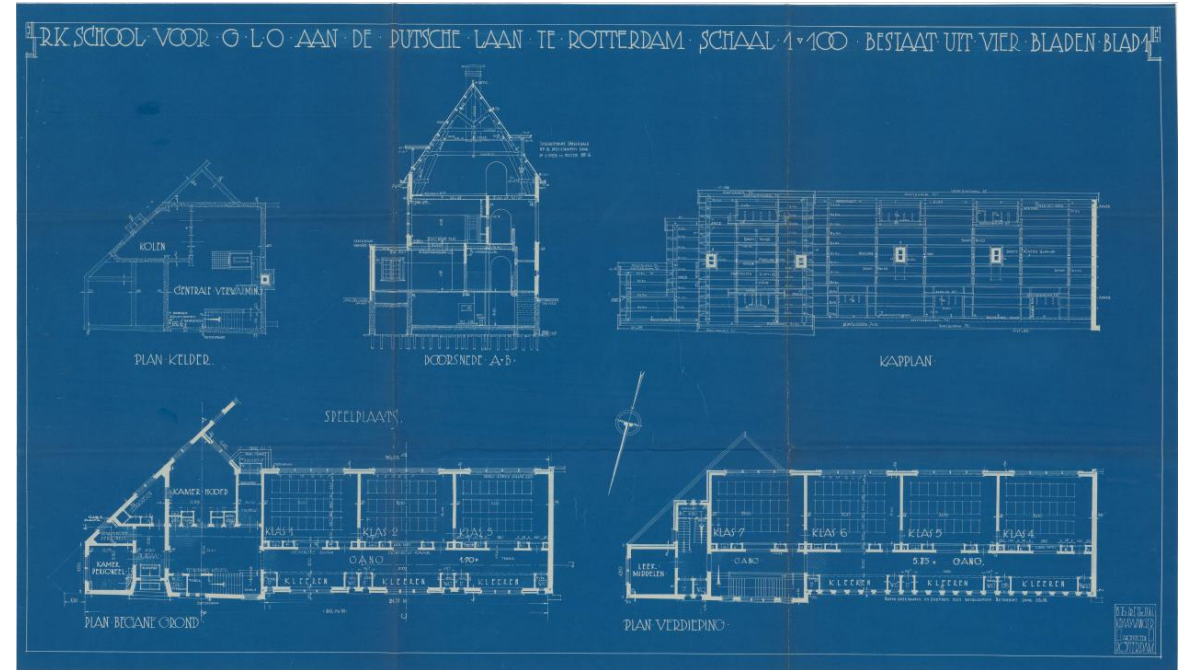
- Putselaan 178
- Rotterdam-South



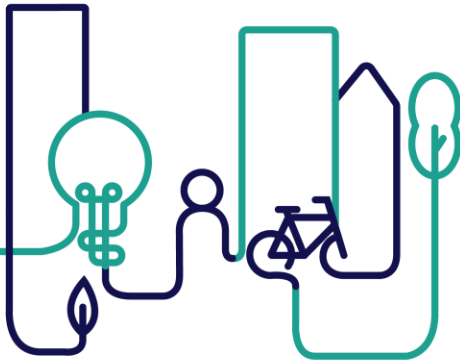


# C&CP – Building details

- **Name:** St. Louisschool
- **Built:** 1928 – 1929
- **Designed:** 1927 – 1928
- **Architects:** B. Th. Kraaijvanger, Evert Kraaijvanger & Herman Kraaijvanger
- **Original use:** Elementary school

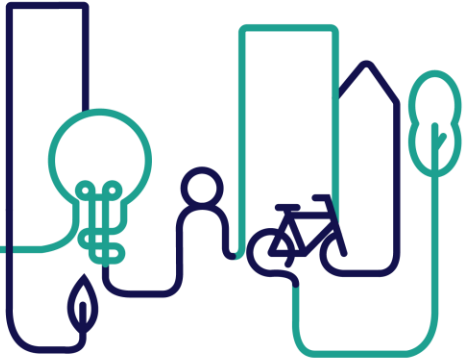
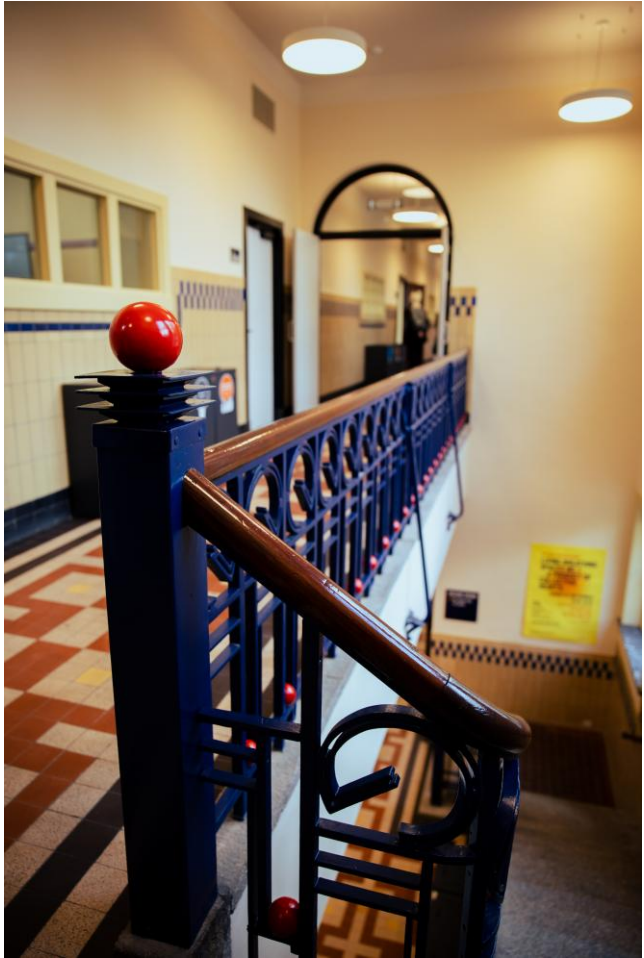


# C&CP – Before renovation circa 2022





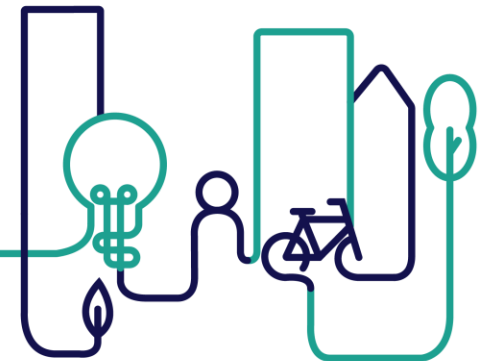
# C&CP – After renovation August 2025





# C&CP – Key Challenges

- Energy retrofitting an historical building:
  - How to heat and cool a historical building without the use of natural gas?
  - How to reduce the impact and CO<sub>2</sub> –emissions of electricity usage in the building?
- Inclusiveness requires accessibility:
  - How to make to each floor accessible?
  - When is an historical building accessible enough. i.e. which standards to follow?





**Group  
Activity**

# CHALLENGE CANVAS

## HOW DOES IT WORK

- Based upon the presentations of Portumna Courthouse and Cultuurcampus, detail on the Challenge Canvas:
  - Step 1 – your understanding of the core technical challenge and how it relates to your own experiences
  - Step 2 – how you would address the core technical challenge
  - Step 3 – how you would transfer the solution to your own contexts



**Feedback**

# CHALLENGE CANVAS

- Each Group to feedback on their Challenge Canvas



**Let's hear  
from J.P.,  
Portumna  
Courthouse**

# HOW DID WE RESPOND TO TECHNICAL CHALLENGE

## ECOLOGY

- Immediately procuring the services of a **local** Ecologist ensured that site visits and sign off could be undertaken relatively quickly.
- Early engagement with contractor allowed for a reworking of the programme to prioritise stripping of roof and demolition works.



Demolition of Lean-to Extension on Adjacent Bridewell.



Temporary Bat Box



Temporary Covering of Exposed Roof



# HOW DID WE RESPOND TO TECHNICAL CHALLENGE

## ECOLOGY

- Mitigation proposals were put forward early in the project to ensure all trades were informed.
- Continuous engagement with local NPWS ranger throughout the project to agree an external lighting strategy – all light fittings downward facing, max. 2.1m high and max. 2700k.



Non-Woven Bituminous Roofing Felt



Accommodating Bat Roost in Attic Space



Downward Trajectory of External Lighting



# HOW DID WE RESPOND TO TECHNICAL CHALLENGE

## HIDDEN HERITAGE

Discovery of Well and Original Entrance to Bridewell during Demolition Works to Courtyard.

Challenge	Key Solution
Bridewell (Town Hall) Building not in client ownership.	Early Engagement with key members of Town Hall Committee to promote enhanced connectivity between their building and new courtyard and café.



# HOW DID WE RESPOND TO TECHNICAL CHALLENGE

## HIDDEN HERITAGE

Discovery of Well and Original Entrance to Bridewell during Demolition Works to Courtyard.

Challenge	Key Solution
Cost & Programme	<ul style="list-style-type: none"><li>• Early discussions between client, consultants and contractor established where items <b>realistically</b> lay on the critical path, providing a key target dates.</li><li>• Costing each design proposal.</li><li>• Timely client decisions ensured project stayed on programme.</li></ul>





# HOW DID WE RESPOND TO TECHNICAL CHALLENGE

## HIDDEN HERITAGE

Discovery of Well and Original Entrance to Bridewell during Demolition Works to Courtyard.

Challenge	Key Solution
Clash with proposed services & external furniture.	Early decision making enabled suitable redesign where necessary. The well surround was utilised as a piece of furniture.
Protection of groundwater.	Glass lid offering protection from possible contaminants
Risk of flooding.	Land drain beneath paving provided protection against rising water levels.



# TECHNICAL CHALLENGES

## THERMAL UPGRADE

Challenge	Key Solution
Improve thermal efficiency of building without compromising historic fabric.	Use of natural products which allow the building to breath.



Sheeps Wool Attic Insulation



Window Repairs and Insulating Render



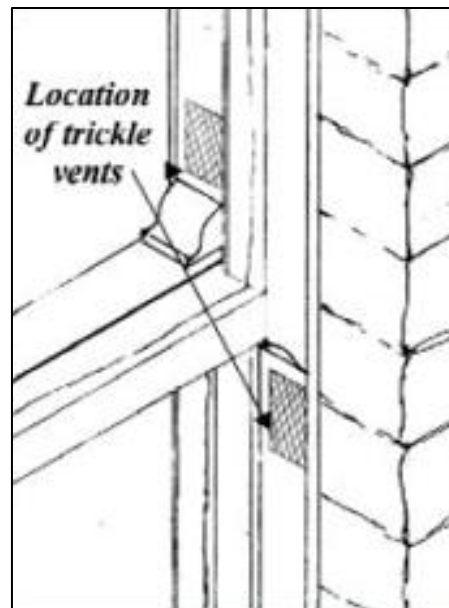
Decision to retain / repair existing lath and plaster ceilings

# TECHNICAL CHALLENGES

## THERMAL UPGRADE

Challenge	Key Solution
1. Ventilation	Lessons Learned – Possible over reliance on natural ventilation strategy.  Work in progress – Currently investigating options to increase background ventilation.

Purpose-made vents can be fitted in new windows, but it could compromise the strength of the timber to cut one into an existing sash or casement. If sash windows fit so well that ventilation is insufficient, it may be possible to fit a thin block to the top of the frame stile to prevent full closing of the upper sash. Sashes altered like this should be secured by locks at the sides instead of the meeting rails. This allows a permanent trickle of air at the top and meeting rail, which is usually over the head level of the occupants. If secondary glazing is used, the original window must be ventilated to the exterior. Permanent trickle vents can be fitted into box frames by a careful joiner. Cut two small oblong holes in the frame stiles near each other: one to take air directly from the outside into the weight box and the other to draw it from there into the room. Fit a grill or mesh over the holes, making sure that the sashes slide smoothly over them.





# TECHNICAL CHALLENGES

## THERMAL UPGRADE

Challenge	Key Solution
1. Sustainable solutions	Air sourced heat pump



Air Sourced Heat Pump

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**Let's hear from  
Sebastiaan,  
Cultuur &  
Campus,  
Putselaan**

# How did we respond to the Technical Challenges

- An integrated High-Temperature District Heating System with included Air Treatment system was installed in the basement:
  - The basement was strengthened & expanded.
  - Externally the HT District Heating Pipes were laid out and attached.
- 38 photo-voltaic panels were installed on the roof.
- When possible windowpanes were replaced with HR++ glass.



# How did we respond to the Technical Challenges

- An elevator was installed by creating a new elevator shaft.
  - This required reinforcing the foundations in the basement.
- An external accessibility ramp was installed;
  - It is an external ramp that is usually used for temporary applications because such a ramp does not damage the faced of the building when anchored.



**Wrap Up  
from  
Matthew**

**Thank you**

