# Case Study: Saggart Schoolhouse Community Centre



# Introduction:

- The inception of the scheme
- The history of the school building
- Our design approach to adaptation and re-use of the old school building and the new contemporary extension
- How we procured and delivered the project
- The challenges we experienced during construction through the lens of the building regulations
- The successes we achieved where we exceeded the requirements of the building regulations through a holistic design approach

# **Project**

- This is Saggart Schoolhouse
   Community Centre
- Created by the adaptation and re-use of the vacant Protected Structure of St. Mary's National School
- A new entrance, reception, service area and multi-function hall have been added to the original school building
- To create a vibrant new Community Centre for the growing residential area of Saggart





# History

- St. Mary's National School was vacant since 2014 and at risk of falling into disrepair
- The original school was completed in 1937
- It was one of the first in a series of national schools by the OPW, designed by Raymond Boyd Barret
- It is a Protected Structure
- SDCC identified the opportunity to save and revitalize this as an important part of Saggart's heritage by purchasing the school building



# Existing



St. Mary's National School doesn't address the road, sitting around the corner of the site

# **Design**Frontage



We designed the new Contemporary Entrance and Multi-function Hall to address the road and Saggart

## Civic Space



It forms a new Civic Space framed by the original School and Play Shelter



# Pitched Roof Design



The multi-function hall is designed with a pitched roof form to compliment its village setting while using contemporary materials and detailing



# Entrance Face



The new glazed entrance establishes the face of the building using a slim concrete canopy and colorful fins



## Old School Restored



The old school building has been restored, upgraded and re-purposed in consultation with the SDCC Conservation Officer



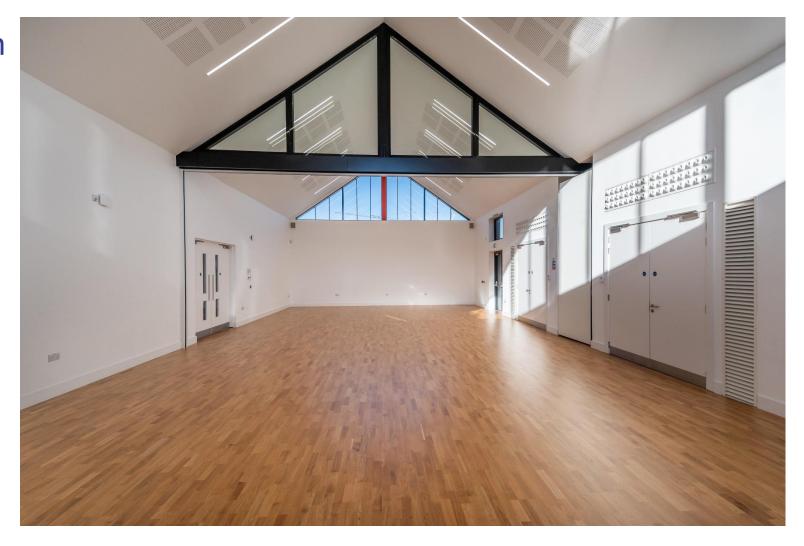
## Entrance Cafe



Inside the new Entrance, Reception and Community Café facing the new public space



# Multi-Function Hall



The Multi Function Hall has a pitched roof and generous ceiling height

#### Classrooms



Original Classrooms have been repurposed to provide bright, spacious Meeting Rooms





Original features have been retained and restored including Blackboards, timber flooring and timber ceiling





Map rails, cast dado rails and wall textures





Corridor Floor Tiles have been retained and restored



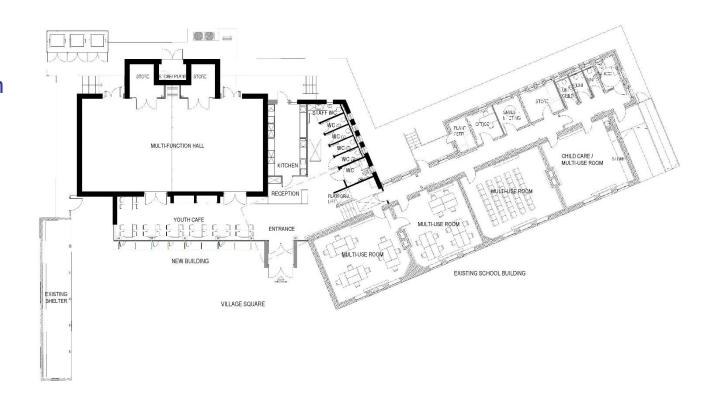


Original stone name plaques and threshold stones have been restored and reinstated These features maintain the distinctive schoolhouse character to the Community Centre



## **Procurement**

- SDCC designed Saggart Schoolhouse Community Centre to Part 8 approval
- in consultation with the Community Section
- We then appointed an Integrated Design Team, lead by IDOM, to deliver the project to completion
- We established the principles of the Building Regulations in the design
- The Design Team delivered the detailed requirements
- For construction, we assigned an SDCC Clerk of Works to regularly inspect and report on the work
- SDCC helped establish a Bord of Management of engaged members of the Saggart Community





# Challenges – Materials and Workmanship – Part D

Part D notes in relation to:

#### **Existing Buildings**

In the case of material alterations or material changes of use of existing buildings, the adoption without modification of the guidance in this document may not, in all circumstances, be appropriate. In particular, the adherence to guidance including codes, standards or technical specifications, intended for application to new work may be unduly restrictive or impracticable. Buildings of architectural or historical interest are especially likely to give rise to such circumstances. In these situations, alternative approaches based on the principles contained in the document may be more relevant and should be considered.



# Challenges – Materials and Workmanship – Part D

- Early in construction stage, we became concerned about the standards of Health and Safety and workmanship on site
- Good Health & Safety standards on site are an indicator of an effective contractor
- In SDCC we assign a Clerk of Works to regularly inspect and report on work on site
- He promptly identified when there were issues with workmanship
- If there are significant concerns about workmanship, work cannot progress until it has been rectified
- Careful workmanship is very important when working with Protected Structures



# Workmanship – Site Manager

- The Site Manager was not the one who's CV was provided in the contractor's tender
- The Site Manger damaged a section of the protected structure rear wall
- He had tried to remove some roof joists, that were embedded in the wall, with an excavator
- The ER issued a Defects Notice
- The Contractor had to provide a Method Statement of careful repair to the damaged wall
- He was shortly replaced by another Site Manager
- We requested a CV but this was not forthcoming





## Workmanship – Structure

- The new main hall has a steel frame structure
- When erected the steel columns were alarmingly misaligned with the associated concrete footings
- The ER issued a Defects Notice and instructed the Contractor to provide an as-built survey
- If there are significant concerns about workmanship, work cannot progress until it has been rectified





# Workmanship – Performance Meeting

- Working with the County Architect
- We held an emergency meeting with the ER and the Contractor to address our concerns
- The Contractor replaced the second Site Manger with the one whose CV was provided at tender
- He proved to be significantly more effective



# Workmanship – Performance Requirements

- We set out the key Performance requirements of:
- Health & Safety
- Conduct
- Quality and Workmanship
- Programme
- Budget
- The Contractor had to address each before progressing to the next



# Workmanship – Concrete

- The contractor poured the structural floor slab and we were alarmed by the poor quality of finish.
- It was uneven underfoot and there was even a boot mark evident in the slab
- As this slab was to be covered by insulation and underfloor heating screed, the poor appearance was not critical



# Workmanship – Concrete

- An exposed concrete entrance canopy and soffit was a central part of the design
- High quality workmanship is critical to achieving satisfactory exposed concrete
- From the worrying experience of the floor slab we insisted that they provide a bench mark sample for approval before proceeding with the concrete canopy
- They engaged a specialist sub-contractor and produced an approved benchmark
- Due to the bench mark process a very successful slim and well finished canopy and soffit were achieved much to our relief





# Workmanship – Successful System

- Through our establishment of this Performance Requirements system:
- The contractor significantly improved their approach and performance
- and delivered a successful building of high design quality





# Successes – Accessibility – Part M

- The Principles of Accessibility informed the design and response to the site
- Designed to make the existing protected structure more accessible
- The original School building was accessed up several steps



#### **Level Access**



The New Entrance has been set at the lower ground level of the site to provide level access

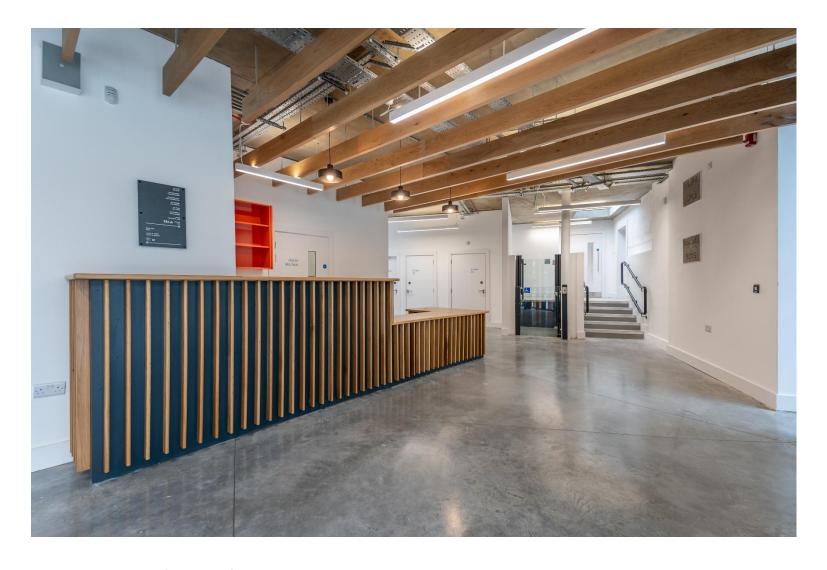
#### **Level Access**



Also accessible at the upper end of the site working with the gently sloping topography



#### **Transition**



Accessible steps and platform lift make the transition within the new area to the Protected Structure



#### **Facilities**



A full suite of accessible facilities have been provided within the new and original building



#### Inclusive



Socially inclusive and accessible for all ages and levels of mobility within the community - Childcare

# Successes – Conservation of Fuel and Energy – Part L

- Sustainable through the conservation and adaptive re-use of the vacant protected structure of St. Mary's National School which would have fallen into dereliction
- Energy efficient, modern extension to complement the protected structure.
- Delivered to meet NZEB standards
- Achieved an A3 BER rating which is a high standard for a protected structure





## Insulation

- A practical insulation strategy was agreed with the Conservation Officer to balance conservation and energy efficiency.
- The prominent front classroom building is internally insulated with breathable Calistherm insulation.



## Insulation

- The less visible rear service wing is externally insulated to optimize effective insulation and maximise the small room sizes.
- The building has also been sealed for airtightness.



## **Surface Water**

- The site has been designed to be self sufficient in surface water management
- Site was largely covered in impermeable tarmac
- We removed and replaced this with softer more permeable surfaces where practical
- Focused paved areas on the public and service spaces
- Provided a sedum roof on the new flat roof area for rainwater attenuation



# Conclusion:

- We have discussed:
- Our design approach to adaptation and re-use of the old school building and the new contemporary extension
- How we procured and delivered the project
- The challenges we experienced during construction
- And the approaches we applied to overcome these challenges
- The successes we achieved where we exceeded the principals
  of the building regulations through a wholistic design approach
- To deliver a successful Saggart Schoolhouse Community Centre

# For the Community

# Thank you

