

Kildare County Library, Archives and Cultural Centre



Metropolitan
Workshop

Architecture + Urbanism

Part 8
Architecture
Report

27 March 2023

Metropolitan Workshop

Architecture + Urbanism

14 years ago we set out to practice architecture differently. We wanted to make more useful, more beautiful, more inspiring buildings and places, but to do this we knew that we had to find a better process that harnessed the full spectrum of society's talent.

We could see that there needed to be greater recognition of the power of collaboration and creative exchange in the design process and that this needed to change before architecture and urbanism could evolve.

Our goal was to take on complex and challenging circumstances and turn them into more virtuous conditions for better outcomes. Our aim was to engage with the public to ensure that projects were better grounded and would succeed more sustainably. As designers we wished to put end users needs first, to understand them more fully, and to resolve issues through design rather than wish them away.

Put simply, we wanted to establish better, more inclusive processes which would result in better more inclusive places and buildings. Over the past 14 years and we found many others who also think this way, and we feature a few of them here.

People make places make people.

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Introduction

Part 8 planning application

This draft report has been prepared to accompany the draft Part 8 application for the proposed development of Kildare County Library, Cultural Centre and Archives in Newbridge, Kildare prepared by Metropolitan Workshop on behalf of Kildare County Council. The report is to be read in conjunction with architectural drawings, landscape drawings, engineering drawings and reports as listed below.

The project for planning purposes is described as:

“ Construction of an extension to the existing protected structure Newbridge Library to provide a new Kildare County library, cultural centre and archives. The proposal also involves the demolition of an existing 1970’s extension to the protected structure. The proposed structure will range from one to three storeys in height with a floor area of 2320 sqm. Landscaping, public realm works and ancillary works are also proposed as part of the development. External works include the relocation of the courtyard entrance from Main Street to Athgarvan Road, modifications to the existing car park and modifications to the Main street public realm to provide service bay for deliveries, bus stop and accessible car parking alongside the provision of a new cycle lane.”

The report prepared by Metropolitan Workshop Architects is intended to give an overview of the client vision, the client brief and the main elements of the project. It touches on the context of the town of Newbridge and the immediate environs of the protected structure which the proposed building will adjoin, as well as summarising the project’s architectural and environmental design principles.

This report should be read alongside the Part VIII drawings and other reports as listed below

Reports

- Report to Inform Appropriate Assessment Screening
- Report to Inform Environmental Impact Assessment Screening
- Bat Survey
- Landscape Report
- Architectural Heritage Impact Assessment
- Transport Assessment
- Infrastructure Report incl. Flood Risk Assessment
- Energy Report
- Timber and Damp Building Investigation Report relating to the Protected Structure
- Window Condition Report for the Protected structure
- Archaeology Desktop Report
- Urban Design Analysis



Internal View

1.1 Introduction

Overview

The proposed Kildare County Library, Archive and Cultural Centre brings together a contemporary library with archive and local studies spaces. It is even more impressive in terms of its ambition as a transformative cultural space for the town of Newbridge in its key location on the junction of the main street with the Liffey linear park. Within our design we have attempted to respond to the council's ambition for a welcoming, innovative space that adds to this unique setting and is at once respectful of its context but brings a sense of excitement and joy to the town of Newbridge.

Site Analysis

Detailed Site Analysis was conducted. The report by Mc Cabe Durney Barnes titled Urban Design Analysis describe the planning context in detail

Brief Development, Design Approach, Consultation

The objective for the Kildare County Library, Archive and Cultural Centre is that it serves as a unique centre for learning, information and culture. Throughout the early stage of the project, we have worked to develop this ambitious brief. This process was made all the richer through discussions with the client and wider stakeholders including the Riverbank Library HQ and Riverbank Arts centre.

The Developed Design

The proposed County Library and Archive is conceived of a cluster of buildings that incorporates the existing protected structure as part of the ensemble. The collection of fragments represent a version of Newbridge in miniature, consisting of a pair of Villas, a Townhouse, a Garden and a Courtyard all linked by an internal street. This approach evolved from our careful reading of the place, its history and morphology.

Technical Considerations

The proposals have been tested against all known constraints and developed in detail to ensure the building provides the highest level of public access and is respectful of its neighbours. Consideration of road and public realm design have ensured that the building is accessible to visitors be they walking, cycling or travelling by vehicle and suitable for all user groups including the mobility impaired.

Access to the site is improved with the relocation of the the courtyard access point and the consideration of all delivery and servicing including set delivery access for the Riverbank Arts Theatre has been taken into account.

The detailed evolution of the design has provided for a high level of sustainable design including on site renewable energy generation in accordance with NZEB.

The required checks have been made on the design proposal to review flood and environmental factors (see separate Flood Risk Assessment and Environmental Impact Screening Assessment).

The Protected Structure

We have outlined a carefully thought through approach to the Protected Structure

1.0 Site Analysis

1.0 Site Analysis

1.1 Context and Environs

The report by Mc Cabe Durney Barnes titled Urban Design Analysis describes the planning context in detail.

The existing complex of the library and Riverbank Centre are a vital component of the town's cultural and economic life. The site occupies a prominent location at the entrance to the town facing the Liffey and the linear park.

The extension of the immediate public realm to increase pedestrian areas at the signalled junction, the introduction of a new cycle lane and remove unnecessary poles, railings, signs etc. with a view to setting a template for the improvement of Main Street



Above: Image from the Draft Newbridge Town Renewal Plan



Above: Newbridge Plan highlighting library site

1.0 Site Analysis

1.2 Cultural Quarter

Metropolitan Workshop were appointed in 2018 to carry out a Town Renewal Plan for Newbridge. As part of the ongoing development of the Newbridge Town Renewal Plan, a 'Health Check' and 'Town Information Report' were carried out to assess the vitality and viability of the town centre. From this base, the draft Town Renewal Plan sets out in detail the measures to be taken to support the renewal and revitalisation of the town. This includes a masterplan and an implementation strategy for the town with several projects designed and ready to be developed to Part 8 approval stage including the establishment of the Newbridge Cultural Quarter and a Transport Framework Plan spearheaded by the NTA.

The aim of the Cultural Quarter was to re-invigorate the historic heart of Newbridge and establish a "Cultural and Civic Quarter" drawing on the synergies, and in particular, the clustering of existing assets including the Riverbank Arts Centre, Kildare Central Library, Newbridge Town Hall and St. Conleth's GAA. This strategy was central to KCC's successful application for URDF funding.

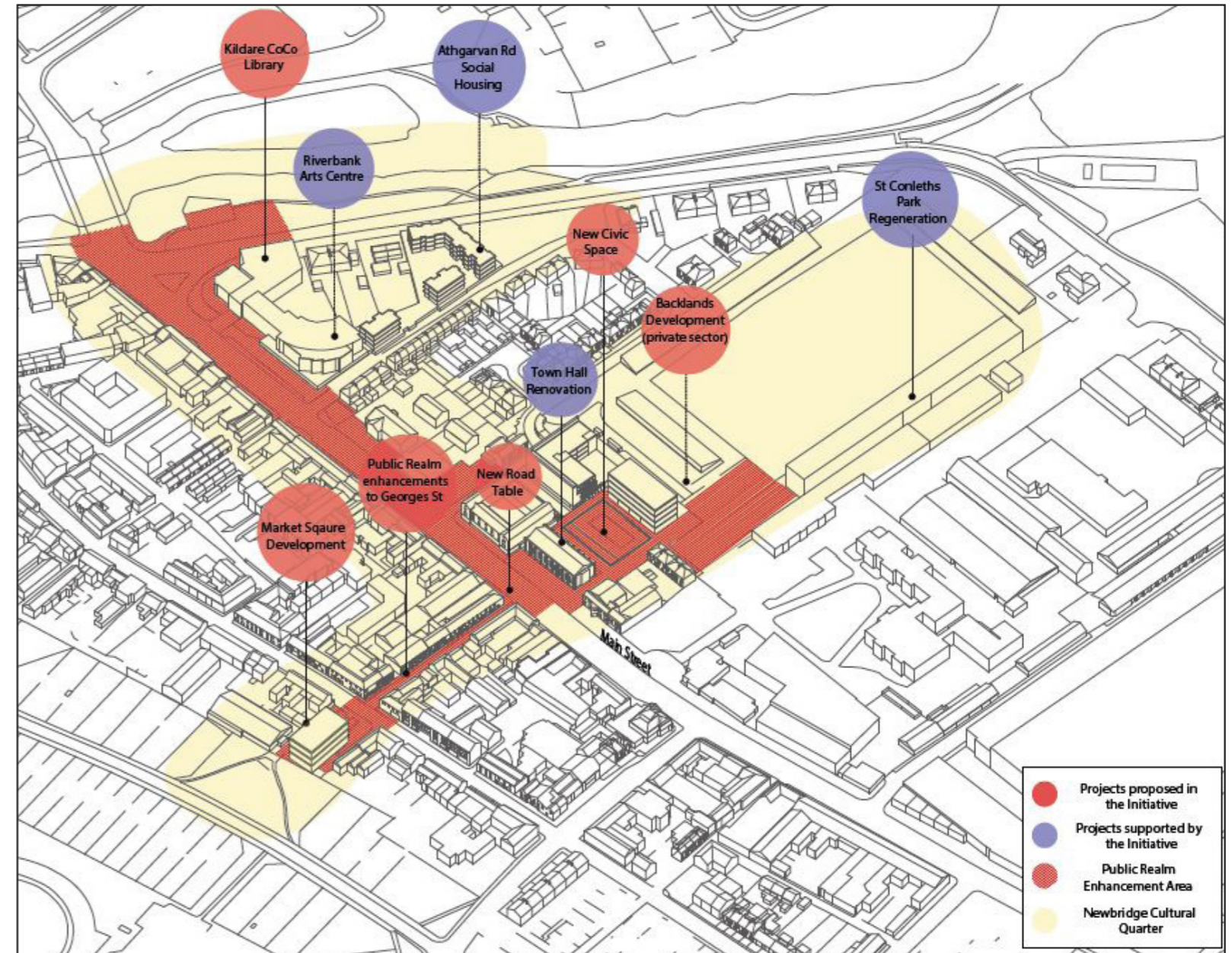


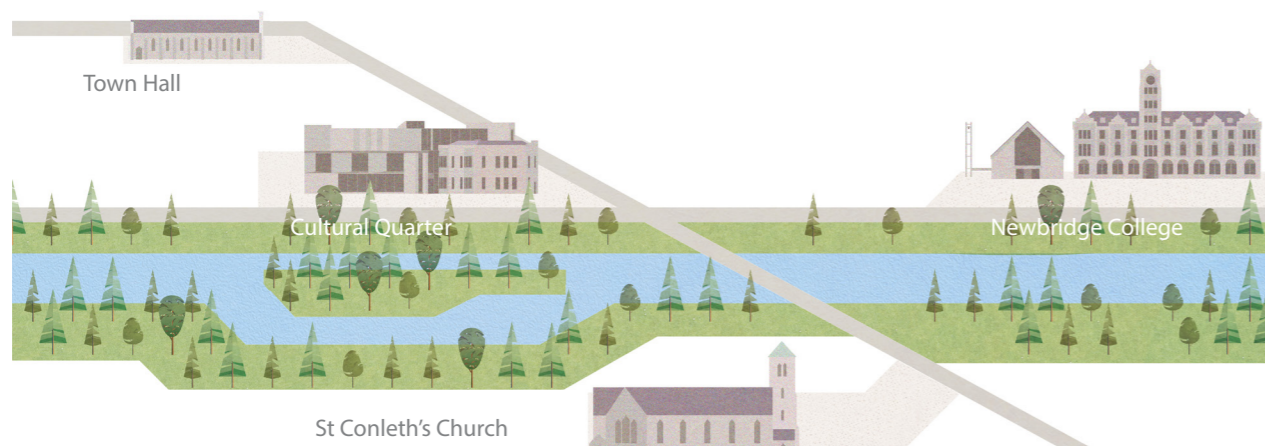
Image from Draft Newbridge Town Plan



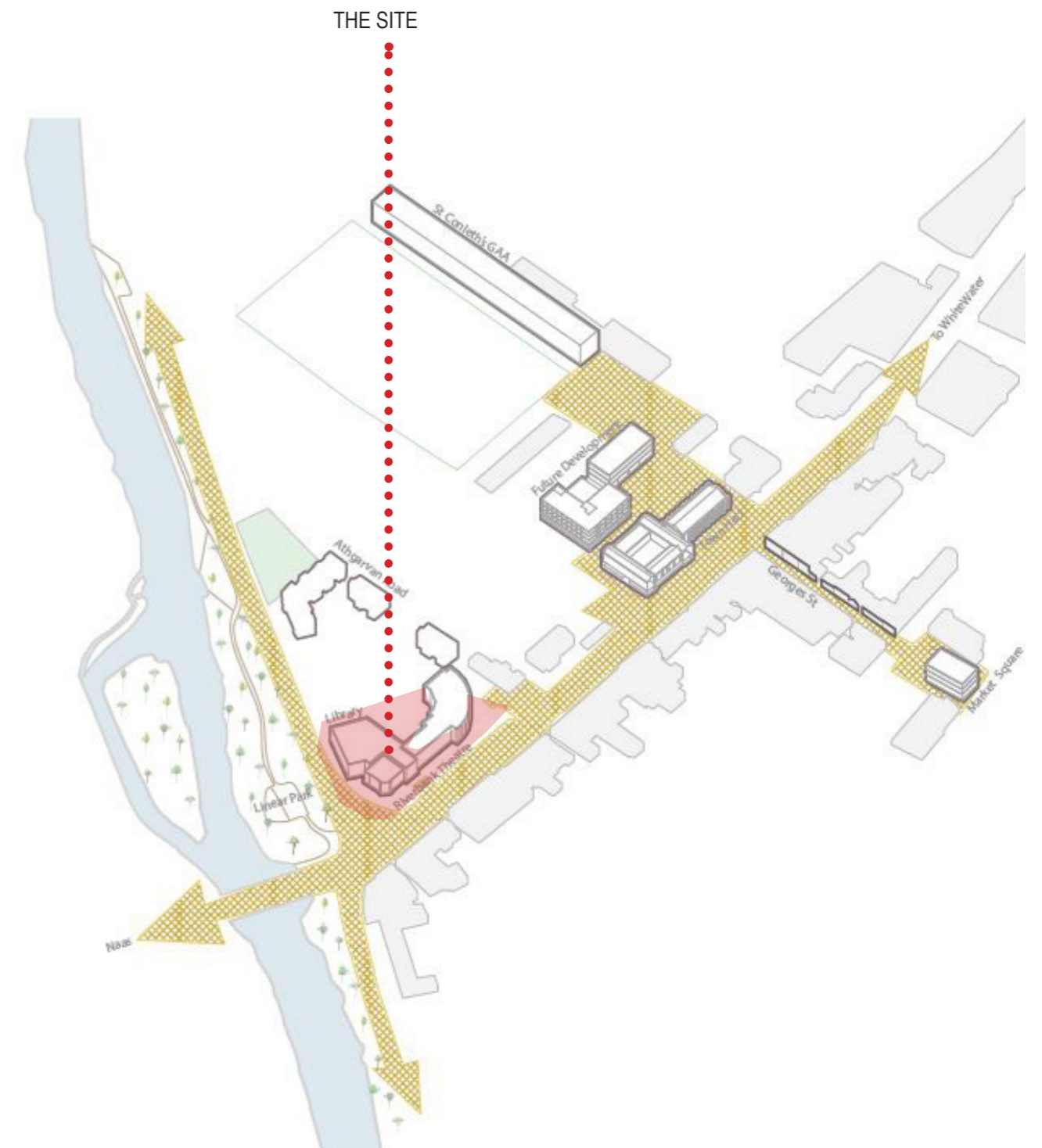
1.0 Site analysis

1.2 Cultural Quarter

The new library building will form an important landmark building to the Cultural Quarter due to its prominent location across the bridge as you enter the Main Street



Concept Diagram - Cultural Quarter as Landmark in Newbridge



The Library site in the context of the Cultural Quarter

1.0 Site analysis

1.3 Historical Analysis

Local Heritage

The town of Newbridge takes its name from the bridge crossing the Liffey to the east of the present town. The first bridge was destroyed by floods in 1789 and William Chapman, engineer on the Grand Canal extension to Naas, was employed to rebuild it the following year: likely to be the high, narrow bridge illustrated above. The present three-arched road bridge was built c. 19301.

The town grew up around the Cavalry Barracks established here c. 1815. It was a substantial barracks, housing some 1,800 horses. The Barracks occupied the entire southern side of Main Street in the town, with its entrance midway along the street.

The twentieth century saw significant changes to the town of Newbridge. Following a period of steady growth during the latter half of the 19th century, the withdrawal in 1922 of the British Army from the Barracks, which had dominated the town to that point, led to a period of decline.

The site of the Barracks, however, shortly became the focus of some of the new industries in the town in the 1930s and 40s: Irish Ropes and Curragh Tintawn in 1933, Newbridge Cutlery in 1934 and Bord Na Mona in 1946.

Since the 1960s, Newbridge has become a significant commercial and retail focal point in County Kildare. There has been extensive residential development (the population now stands at over 20,000) and it has become an important business centre and a busy shopping and commuter town.



MAIN ST. NEWBRIDGE. Co. KILDARE. E301.W.L.

1.0 Site analysis

1.3 Historical Development



1839

The town grew up around the Cavalry Barracks established here c. 1815. It was a substantial barracks, housing some 1,800 horses, and formed part of an extensive programme of military expansion in Ireland following the 1798 rebellion and Napoleonic wars. The Barracks occupied the entire southern side of Main Street in the town, with its entrance midway along the street.

The distinctive form of the corner site now occupied by the Newbridge Library building is clear on the early maps shown here, with a very long, narrow structure shown running south from the site along the line of Athgarvan Road.

The building is identified on the 1872 map as an Infirmary Stables: this was a 'horse hospital', a building type found in Cavalry Barracks such as this which housed many hundreds of horses.

Although no images of the building have been found, it is likely to have been a single-storey stone or brick structure, and appears to have been built at the same time as the initial construction of the Barracks, 1815-19, to a design by Cork architect and builder, Abraham Hargrave.



1872

To the north of the Main Street, the town expanded significantly during the latter part of the 19th century, following the establishment of the Curragh Military Camp in 1855 and its associated population increase in the wider area. The railway station in Newbridge was opened in 1846.

1.0 Site analysis

1.3 Historical Development



1910

The twentieth century saw significant changes to the town of Newbridge. Following a period of steady growth during the latter half of the 19th century, the withdrawal in 1922 of the British Army from the Barracks, which had dominated the town to that point, led to a period of decline.



1942

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The Cavalry Barracks

1.0 Site analysis

1.4 The Cavalry Barracks

The town grew up around the Cavalry Barracks established here c. 1815. It was a substantial barracks, housing some 1,800 horses, and formed part of an extensive programme of military expansion in Ireland following the 1798 rebellion and Napoleonic wars. The Barracks occupied the entire southern side of Main Street in the town, with its entrance midway along the street.

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The town at present consists only of one street, on the western bank of the river; but it is yet in its infancy, and there is every prospect of its increase. The barracks are spacious and handsome, consisting of two parallel ranges of building, connected by a central range at right angles; and are capable of accommodating two regiments, with apartments for their officers, and an hospital for 100 patients. A patent has been obtained for two free markets, which are held on Tuesday and Friday in every week, and for two fairs, on the 3rd of May and 15th of August. Here are also a constabulary police station, a dispensary, and a R.C. chapel, with a friary.

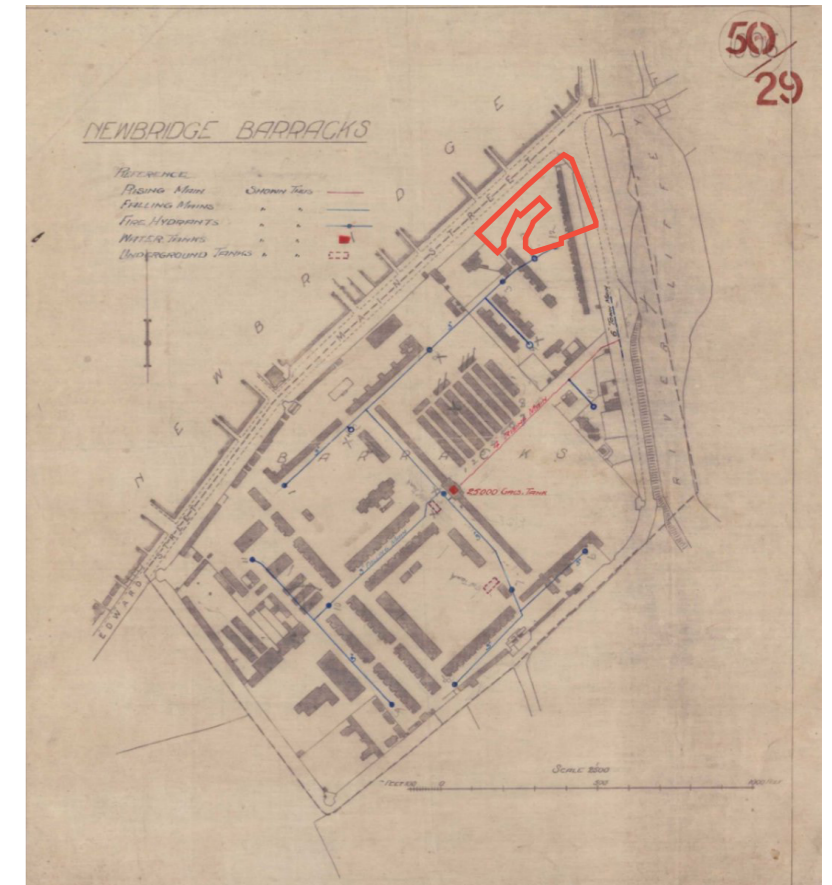
- Lewis's Topographical Dictionary 1837.



Aerial photo, English Heritage



NLI Eblana Collection 1870-1890



Ordnance survey 1872 Newbridge

1.0 Site analysis

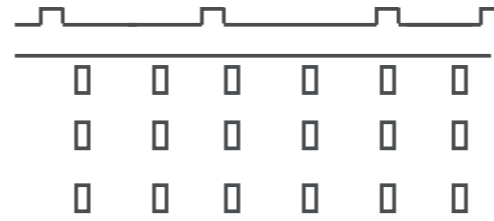
1.4 The Cavalry Barracks



Military Quarters, Newbridge Barracks, Eason Collection, NLI 1900-1939

Key Characteristics of the Barracks

Larger terraces



The overarching character of the barracks is a militant regularity and uniformity, especially of the key and larger buildings. This is seen in the gridded plan with buildings parallel and perpendicular and in the heights and window spacing and sizing.

This regularity is highlighted by the white lintels and cills creating a pattern to the facades.

Main gate

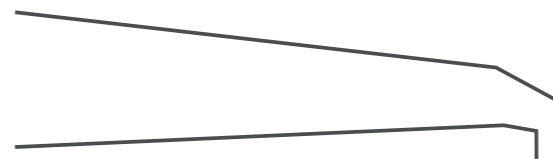


The main gate breaks the regularity and created a focal point to the site, the windows widen whilst maintaining the same line as the buildings around.

The three storey entrance tunnel falls to a two storey arched gate, the architecture is protective and enclosing.

A dome and weathervane with a crown detail adds ornament to a site with little.

Horse hospital



Before the library, a building on the site can be identified on the 1872 map as an Infirmary Stables: this was a 'horse hospital', a building type found in Cavalry Barracks such as this which housed many hundreds of horses.

Whilst photos which still exist of the site show mainly the larger buildings, plans show that these smaller single storey buildings filled the majority of the site. These single storey structures, likely to have been a stone or brick structure, and with more temporary and lightweight timber additions (such as seen in the photo) for the horses.

1.0 Site analysis

1.4 The Cavalry Barracks

Remnants of the Barracks

Barrack Gate, Droichead Nua



The last remaining barrack gate is situated just west of the site. The gateway, now blocked, has a larger opening for carriages and two smaller doorways, creating symmetry and uniformity.

The rural stone wall is greatly contrasted with the classical ornamentation of the doorway with blocking and large keystone.

Just before this gateway in the wall are small 'arrowslits' without the classical ornamentation these appear as if they could be from medieval fortifications and form reflects their military purpose.

Methodist church built within the barracks circa 1859



Formerly a Methodist church built within the barracks circa 1859 – the church was de-consecrated following the closure of the Barracks in the 1920's and has been refurbished to become the Newbridge Town Hall.

Guard Stones



Guard Stones were positioned at the base of buildings at street corners and arches, sloped to guide carriage wheels back onto the roadway should the carriage take the corner too sharply. A few remain around the site of the barracks.

1.2 Site analysis

1.5 The Main Street

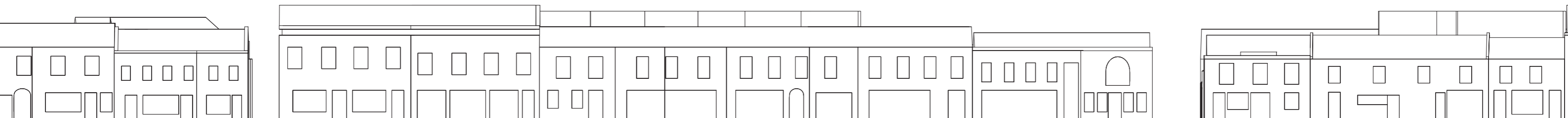
The Main Street and shops grew around the barracks and to the north the town expanded significantly during the latter part of the 19th century, following the establishment of the Curragh Military Camp in 1855 and its associated population increase in the wider area. The railway station in Newbridge was opened in 1846.

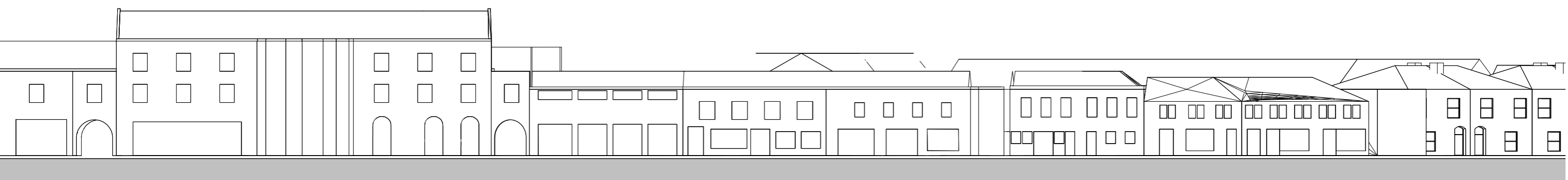
The site's character was during the 19th and early 20th century defined by the rubble stone boundary wall to the Barracks.

While the historic character of the northern side of Newbridge's Main Street is largely 19th century, comprising small to medium plot sizes and commercial uses, the southern side is characterised by more recent development, having been occupied by the Military Barracks until the early decades of the 20th century. The present plot sizes on this side are larger, uses more mixed and architectural expression more varied. In



The street elevation of the barracks around the present site of the library would have been a rubble stone wall on both Main Street and on Athgarvan Road. In the late 19th century photograph below, the boundary wall occupying present site of the library is just visible.





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1900

1.0 Site analysis

1.6 Materiality and Character of the Town

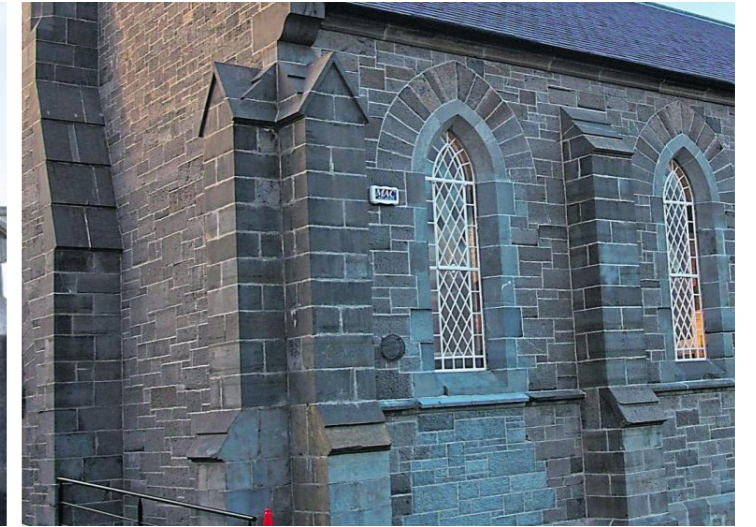
The materials used for public and religious buildings are largely stone and brick.

Differing from this, the two public buildings on the highstreet (library and arts centre) match the historical pattern of Main street and are rendered in colours.

Stone



St Conleths



Town Hall



St Patricks Church



Newbridge College

1.0 Site analysis

1.6 Materiality and Character of the Town

Brick



Bank of Ireland

Render



Holy Family Secondary School



Riverbank Arts Centre



Newbridge Library



Intreo Office



Main street shops have remained rendered

1.0 Site analysis

1.7 Protected Structures

The site context includes a Protected Structure of historical, architectural and social interest to the town, and respect for the wider historic character of the surroundings has been integral to the development of the proposed design scheme.

The map to right, from the current Newbridge Local Area Plan, identifies the Protected Structures in Newbridge, including the existing Local Studies building on the site and in the immediate context of the site.

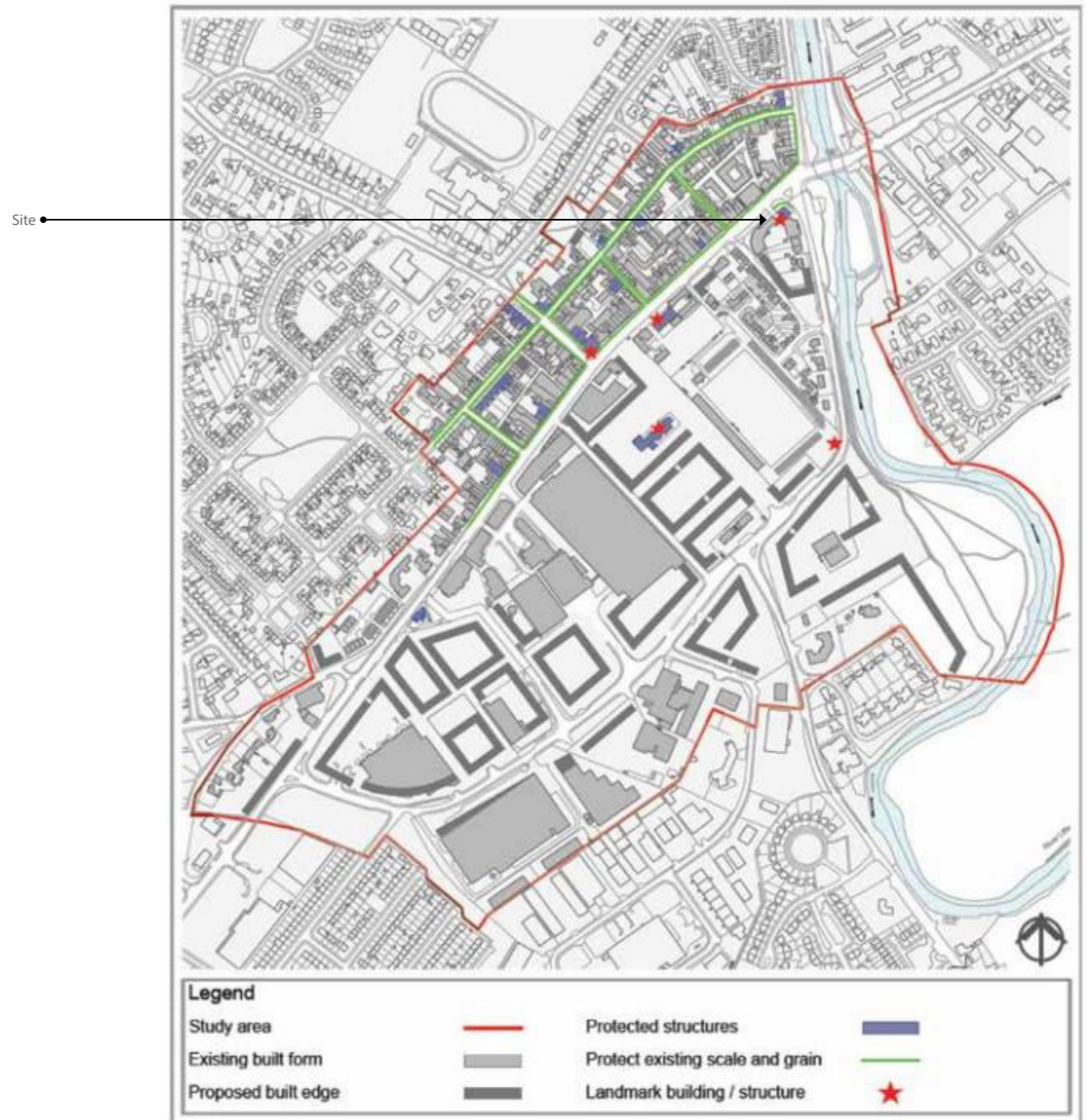
The Local Studies building, originally built as Newbridge Library, is Protected Structure no. B23-41 in the Kildare Development Plan 2017-2023. The map below is focused on the historic town centre, with the intent to protect the existing grain and scale indicated to the northern side of Main Street (and a small defined area around the existing Local Studies Building).

The Local Studies Building of Newbridge County Library is also included on the National Inventory of Architectural Heritage (NIAH ref. no. 11818036). It is rated as being of Regional Significance, with Architectural, Cultural, Historical and Social categories of Special Interest noted. In its appraisal, the NIAH entry notes that the building is an imposing landmark in the centre of Newbridge.

The buildings chosen to be protected demonstrate the emphasise on social histories and a decision to protect a range of different buildings from uses and classes and scales.

Similar to the library on the site, it is the uses of the buildings which is seen as important to maintain - a library, pub, townhall, school, solicitors.

These locally listed buildings vary in style and have no striking unifying character. However there is an obvious style within the two religious building, stone and of a modest scale with small narrow windows divided by buttresses which give a verticality to the low rise and horizontal buildings.



Map from Newbridge Local Area Plan 2013-2019 (still effective 2021)

1.0 Site analysis

1.7 Protected Structures



B23-18.JPG 15 Eyre Street



B23-51 St. Patrick's Church, Chapel Lane



B23-15 Bourtree Lodge, Moorefield Rd



B23-30 canning place



B23-40 newbridge town hall



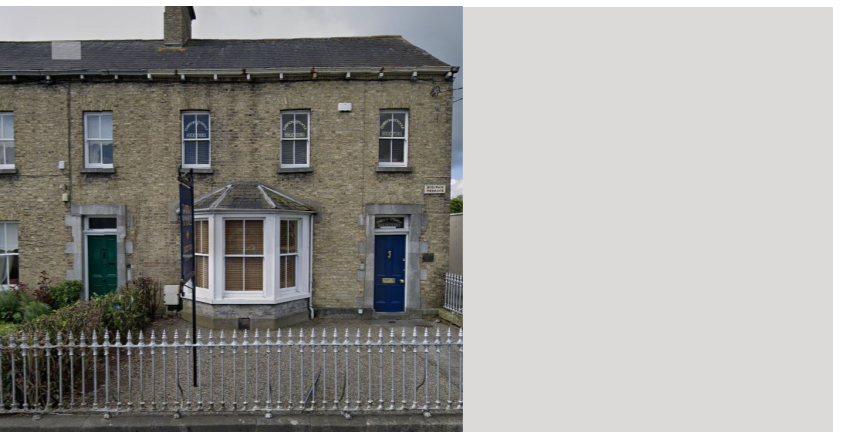
B23-57 P.Flanager, Eyre Street



B23-49 Adare House



B23-43 Holy family secondary school (former)



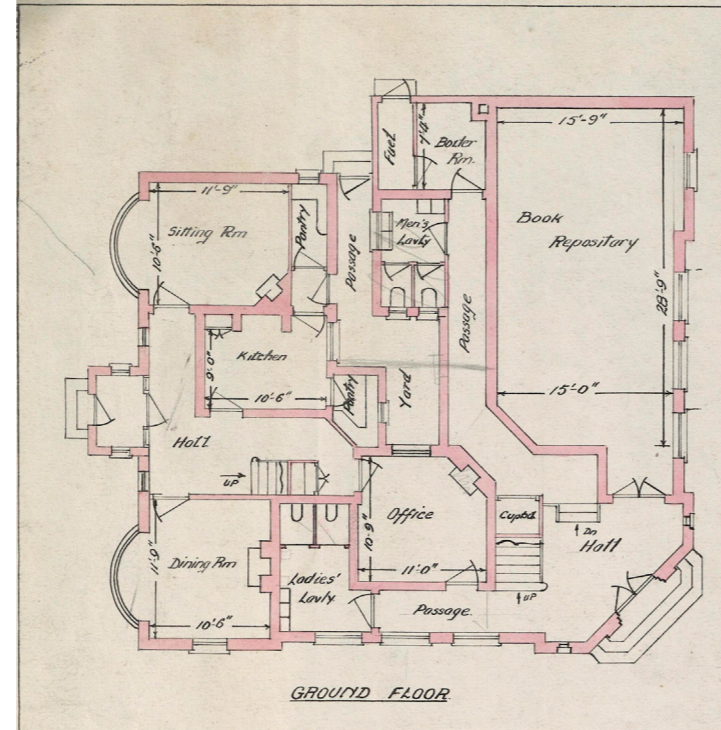
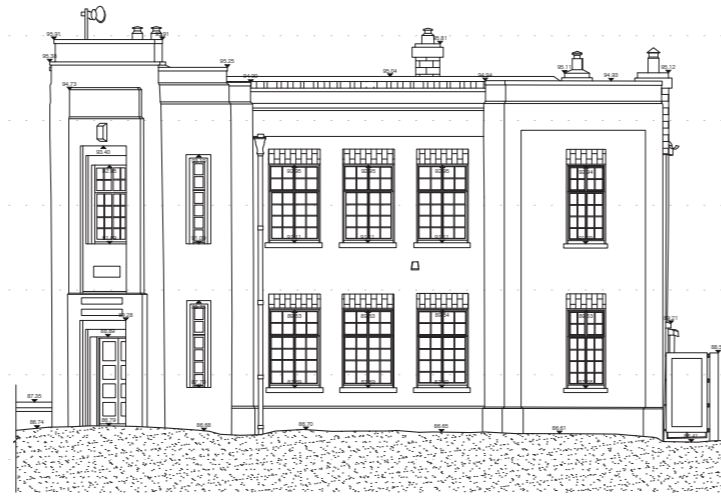
B23-31 Delaney Dawson and Company Solicitors, 6 McElwain

1.0 Site analysis

1.8 The Protected Structure -Library

The new Library was designed by a Kildare-born engineer to Newbridge Town Commissioners, Alma Kingsley Sargent. The design responded to the prominent corner site at the Liffey entrance to the town by placing the building's entrance in a projecting canted bay at the corner of the site, utilising Modernist detailing such as profiled parapet walls, raised rendered panels and iron casement windows. The design of the building reflected the ambition of the County Library to provide a modern educational facility for the citizens of the expanding town.

Drawings from Alma Kingsley Sargent's office now in the Irish Architectural Archive indicate that he was responsible for a good deal of public and private housing, principally around Naas and Newbridge, but the Library appears to have been one of his more prominent commissions.



Palm Cottage in 1950

1.0 Site analysis

1.8 The Protected Structure

Key Feature:

Canted Entrance Bay

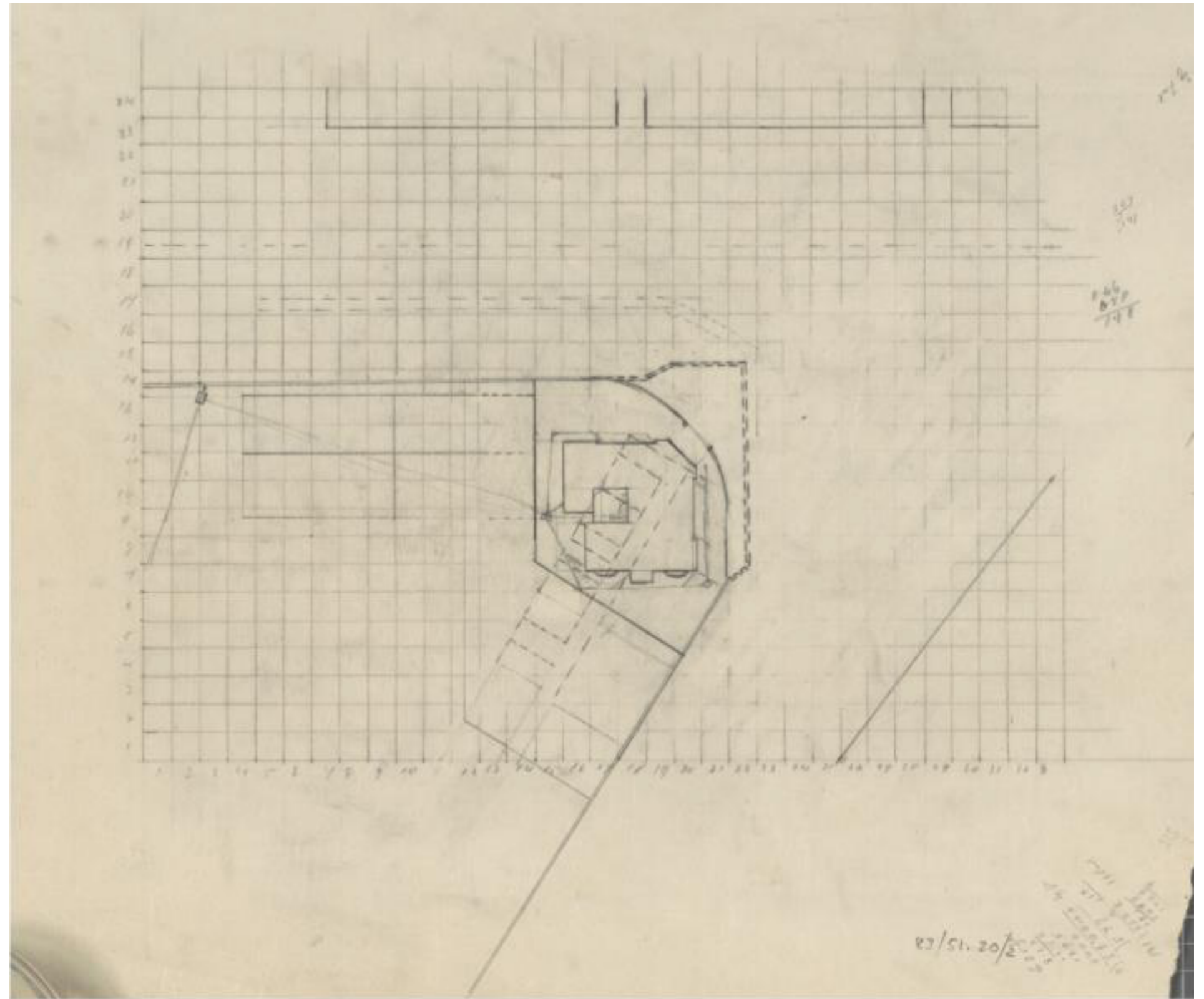
One of Sargent's sketches, shown to left (Fig. 2.16), is a rough site plan drawing, apparently setting out the initial form and orientation of the library on its site. The library form is overlaid on a hatched outline of another structure. When this drawing is viewed alongside the large scale 1872 OS map (Fig. 17) depicting the Infirmary Stables, it suggests that the stables may still have been in place when the library was being planned.

The canted entrance bay of the proposed library broadly aligns with the northern end of the Infirmary Stables building on the sketch.

From a wider site and townscape perspective, the existing 1934 Library building retains its visual primacy in the proposed scheme, continuing to occupy its prominent corner site, with a generous space to the rear allowing its form to remain clearly legible. The original entrance doorway to the Library is to be retained, with an additional access point provided to the west.



'The canted entrance bay of the proposed library broadly aligns with the northern end of the Infirmary Stables building on the sketch.'



1.0 Site analysis

1.8 The Protected Structure

Key Feature: Elevational Treatment

The 1934 Library building is a detached, eleven-bay, two-storey building, built on a corner site adjoining the River Liffey.

It has a north-facing, single-bay, two-storey canted entrance bay, with single-bay, two-storey flanking entrance bays and three-bay, two-storey flanking elevations facing north-east and north-west, with single-bay, two-storey advanced end bays.

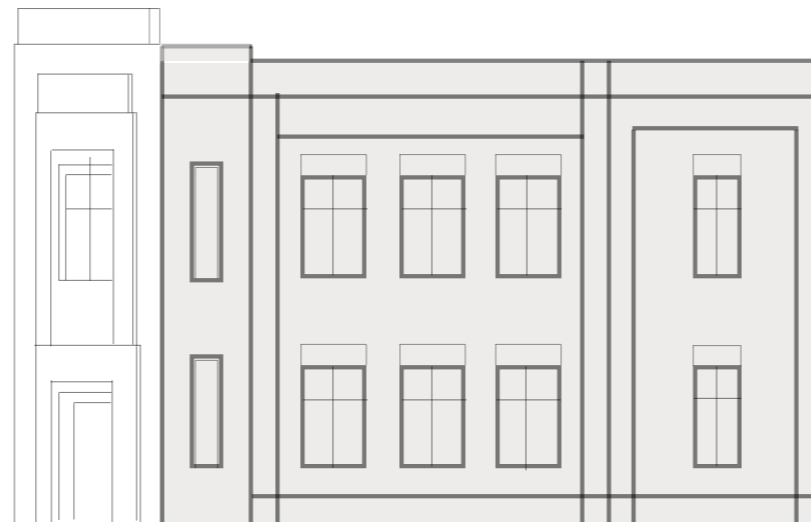
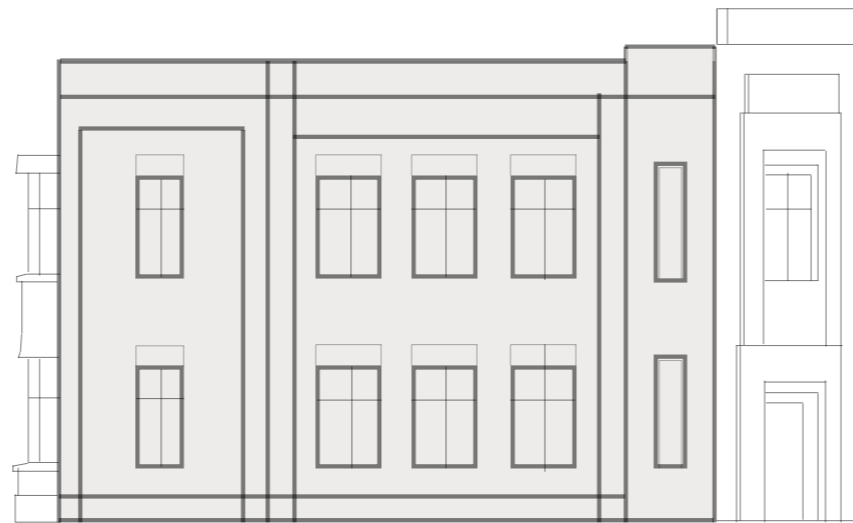
The buildings has hipped roofs behind parapet walls, with a slate covering and terracotta ridge tiles. It has red brick chimney stacks, timber eaves and cast-iron rainwater goods.

Painted, rendered walls to entrance bay, with rendered, profiled stepped parapet above entrance. Painted roughcast walls to flanking elevations with rendered dressings marking bays and parapets.

Square-headed window openings with stone cills and painted red brick dressings. Original iron multipane casement windows, apart from rear elevation, where there are replacement uPVC casement windows in curved projecting bays. Entrance bay has square-headed openings in recessed panels with rendered advanced surrounds. The main entrance doors are recent replacement glazed timber doors.

The building is set back from the road on a corner site. There is a roughcast boundary wall to the front with sections of iron railings above.

“The Library represented a cultural ambition for Newbridge expressed in the form of a then innovative Modernism. The architectural expression of the proposed new building continues that tradition of reflecting the ambition of a modern cultural offering for Newbridge fully reflective of its period of construction.”



1. Profiled parapet walls



The combination of a coherent palette and the repetition of simply-arranged elevations result in a sense of uniformity within the streets. This brings a distinctive character to the estate but might not aid easy wayfinding.

1.0 Site analysis

1.8 The Protected Structure

Key Feature:
Elevational Treatment

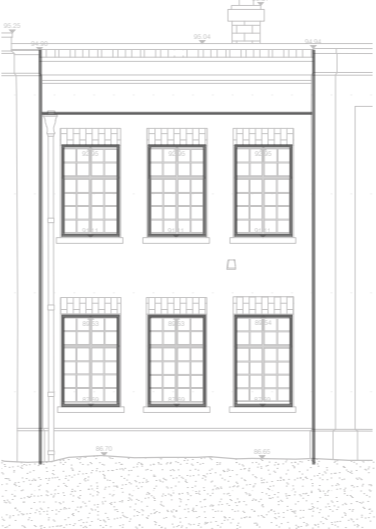


2. Raised contrasting rendered panels



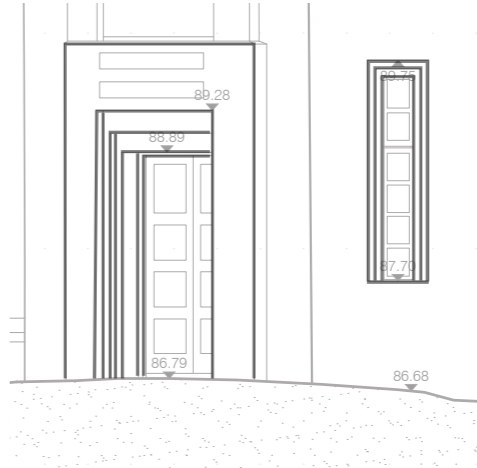
The combination of a coherent palette and the repetition of simply-arranged elevations result in a sense of uniformity to the building

3. Flanking elevations with windows in threes



3 windows form the central bay on each of the Main Sta and Athgarvan Road facades. These are book ended by a single bay and the distinctive corner entrance

4. Staggered Window and door reveals



Staggered reveals are a common feature of Art Deco buildings. These are expressed on the corner entrance bay.

1.0 Site analysis

1.9 Art Deco Precedents

Much of Ireland's Art Deco is relatively late in the period, using the more simplified forms of the machine age than the elaborate detailing and ornamentation of early Deco.



Former bank of Ireland, Belfast



Kodac building, Dublin



Sinclair Building, Belfast

1.0 Site analysis

1.9 Art Deco Precedents



Ringsend Public Library is an art Deco style public library in Ringsend, Dublin designed by Robert Sorley Lawrie working in the city architect's office under Horace O'Rourke.



Cork City Library



St Conleths Bridge

This three arch road bridge replaced an 18th century five arch structure, though construction of the arches retained their original shape.

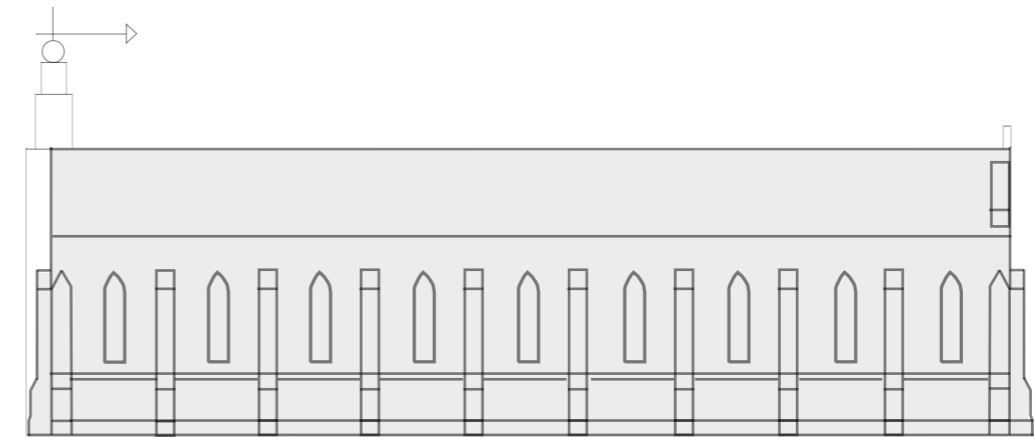
A bridge was first erected on the present site in the 1780's, when the previous bridge – located somewhere near the watering Gates – was damaged by a flood: the main road being re-aligned to accommodate moving the bridge. The modern bridge, built in 1936, is of considerable historical and social significance as a reminder of the road improvement schemes in Ireland in the early 20th century. The bridge was significantly modernised in 2006, when the walls were removed and a boardwalk added.



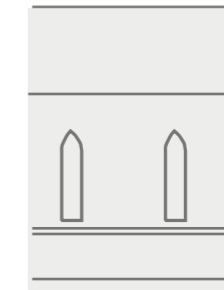
1.0 Site analysis

1.10 Local Buildings

Newbridge Town Hall



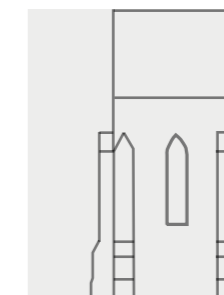
Lancet arched windows



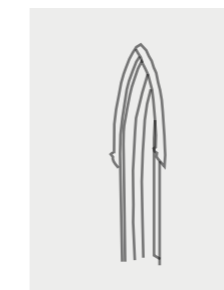
The coursed limestone wall sit on a dressed limestone projecting plinth and are broken at window cill level with a cut limestone courseing.



The bays are articulated with stepped buttresses.



Stepped gabled buttresses at 90degrees at corners



Lancet arched entrance door has a molded stone surround.

1.0 Site analysis

1.10 Local Buildings

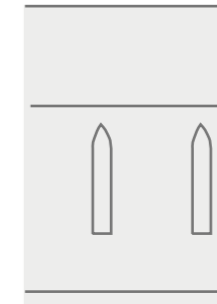
St. Patrick's Church, Chapel Lane



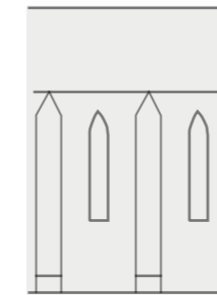
Facade Characteristics



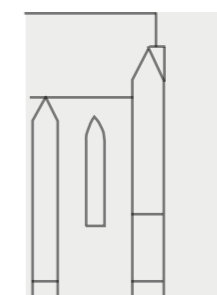
The two flanking facades have longer lancet arched windows than the back facade



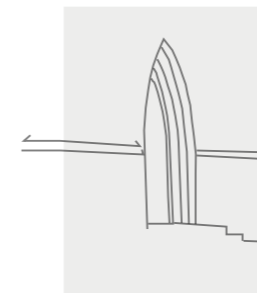
The two flanking facades have longer lancet arched windows than the back facade



The bays are articulated with buttresses with triangular capping.



The front of the church (South-West), is articulated with corner piers, enlarging the buttresses form.



Lancet arched entrance door has a moulded stone surround. The entrance facade is broken by two horizontals just above cill level.

1.2 Site analysis

1.10 Local Buildings

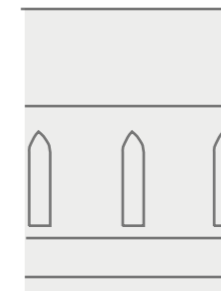
St Conleth's Church 1850 - 1855



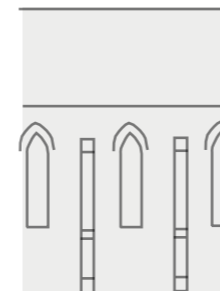
Facade Characteristics



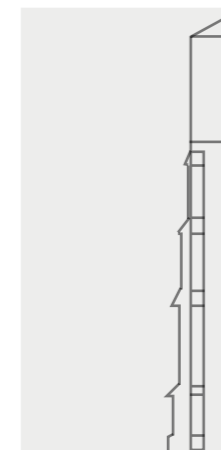
Lancet arched windows



The walls are articulated horizontally with a projecting plinth and are broken at window cill level.



The bays are articulated with stepped buttresses.



The church is dominated by a tall, slender soaring tower to the north-east which serves to identify the building in the locality while articulating the skyline

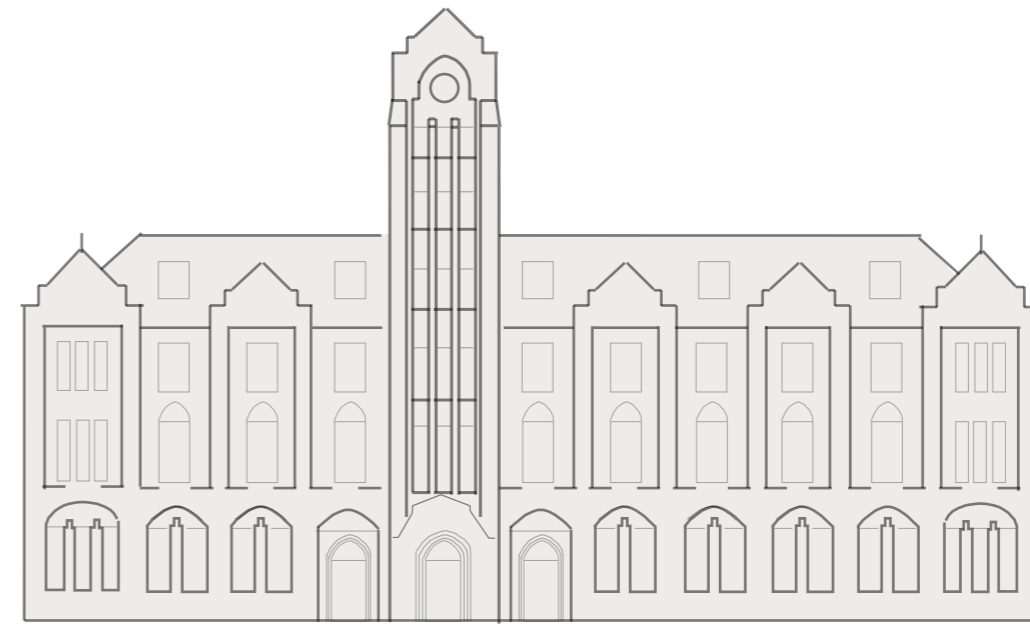
Stepped buttresses (clasping to tower) with cut-stone coping

1.2 Site analysis

1.10 Local Buildings

Facade Characteristics

Newbridge College



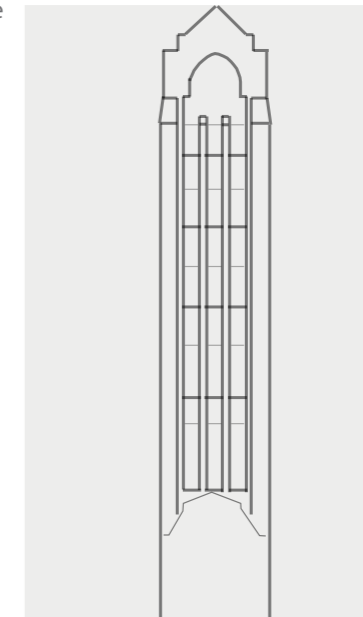
First two levels of windows are



Expressed verticals divides the facade and windows.



Three arched entrance doors are the same size with the central door emphasised with a larger archivolts.



The verticals expressed on the facade becomes narrower and engulate the form of the tower.

The windows get smaller as they go as with the rest of the front facade, however do not align with the rest of the facade.

2.0 Design Approach

2.0 Design Approach

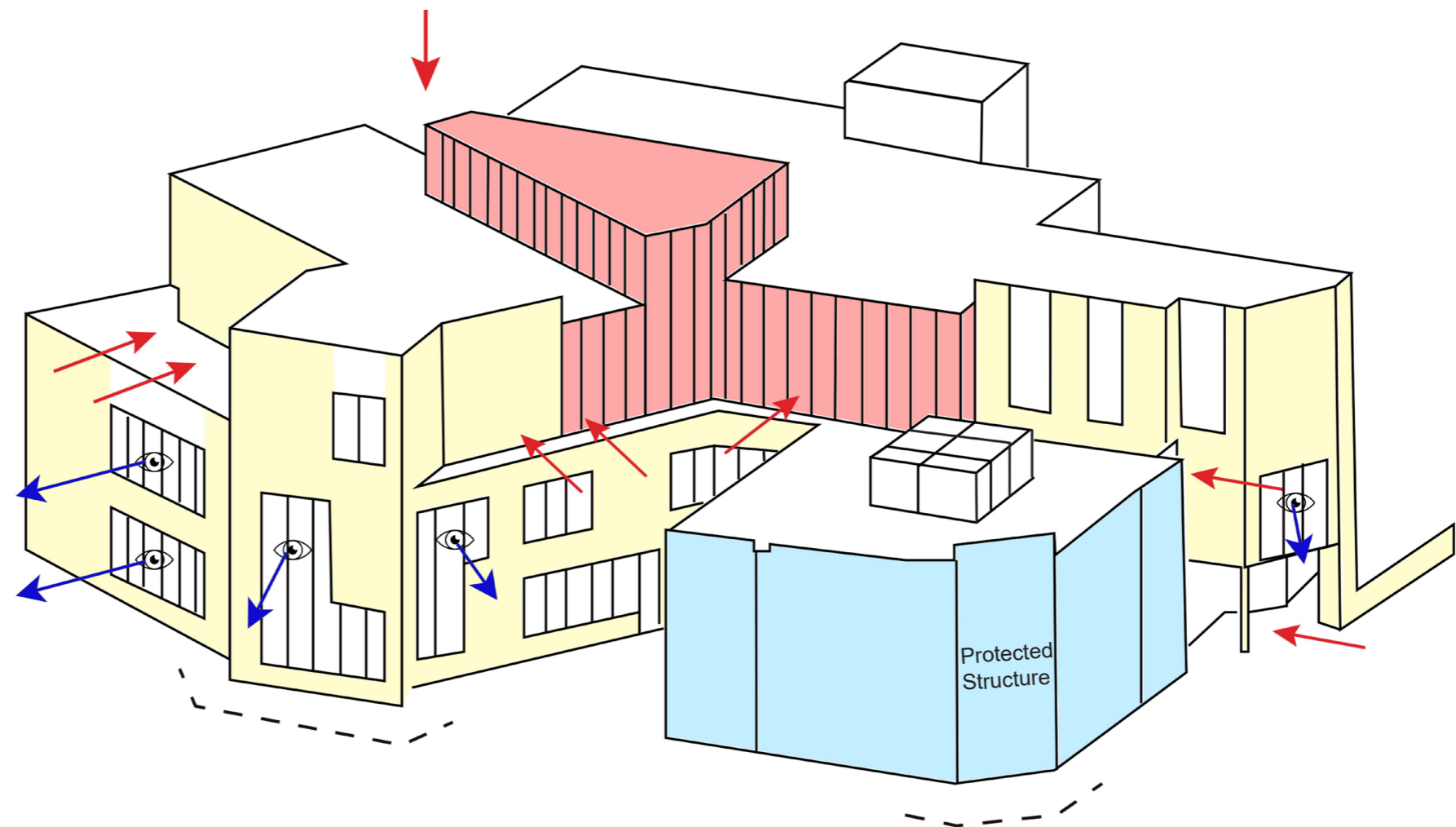
2.1 Massing and Orientation

The proposed County Library and Archive is conceived of a cluster of buildings that incorporates the existing protected structure as part of the ensemble. The collection of fragments represent a version of Newbridge in miniature, consisting of a pair of Villas, a Townhouse, a Garden and a Courtyard all linked by an internal street. This approach evolved from our careful reading of the place, its history and morphology.

The main library consists of the existing two storey mass of the library plus two new masonry buildings of a similar footprint. The new buildings are predominantly three stories with the third floor stepping back in places from the protected structure to soften the relationship between the new and the old. This upper floor is expressed as a lightweight element as it wraps around the rear of the protected structure. These three objects are rotated around the site to turn the corner and align with the neighbouring buildings. The space between these three objects contains the entrance foyer, circulation, informal seating areas and ancillary spaces serving the three parts of the library.

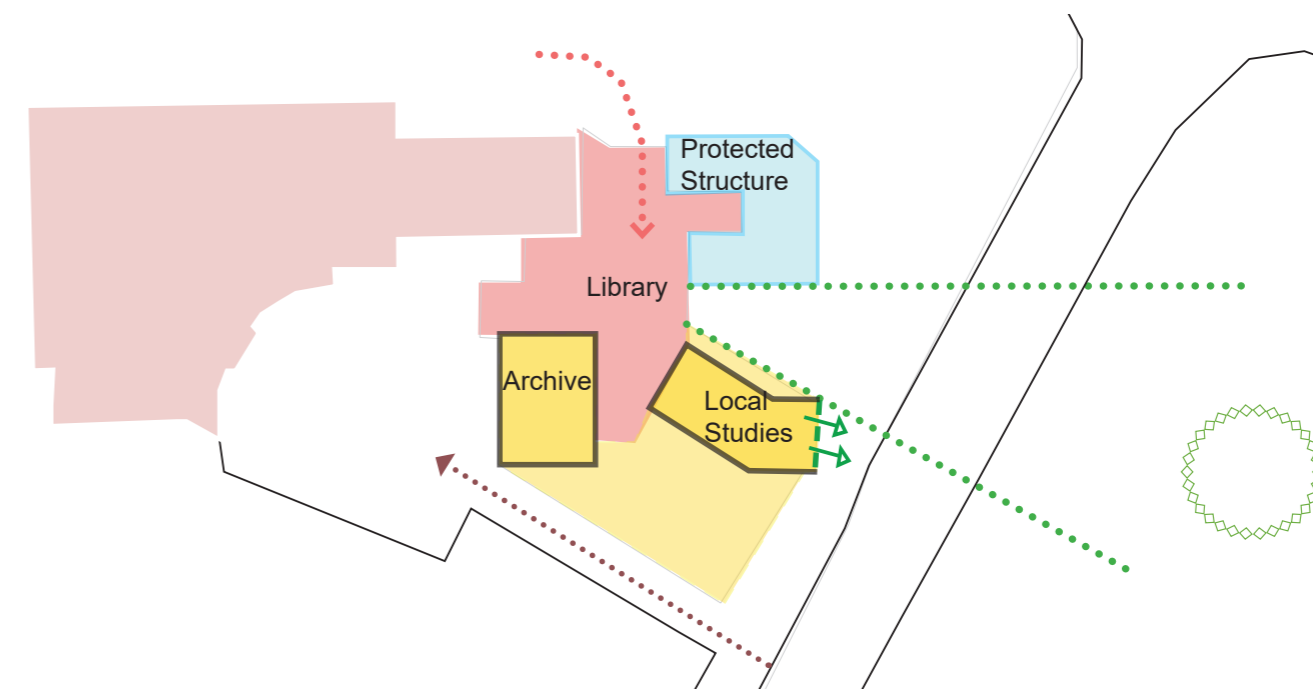
A number of external spaces are created between the new and proposed buildings such as a secure garden on Athgarven Road allowing the protected structure to breath and creating a reading space off the children's library as well as a secure staff entrance. A south facing terrace is created off the multi-function space, the change in level means there is the opportunity to create some terraced seating down to the lower car park level.

The brief includes the Newbridge Library and the County Kildare Archive and Local Studies. The building is arranged over three floors with the Newbridge library located on the ground and first floor while the second floor is dedicated to the County Kildare Archive and Local Studies. The



existing building serves as a home for the library staff containing offices and support spaces. The old reading room is part of the public library on the ground and first floor. The old is connected to the new via a glazed roof light over the former external yard space. This space serves as a flexible gallery space off the foyer.

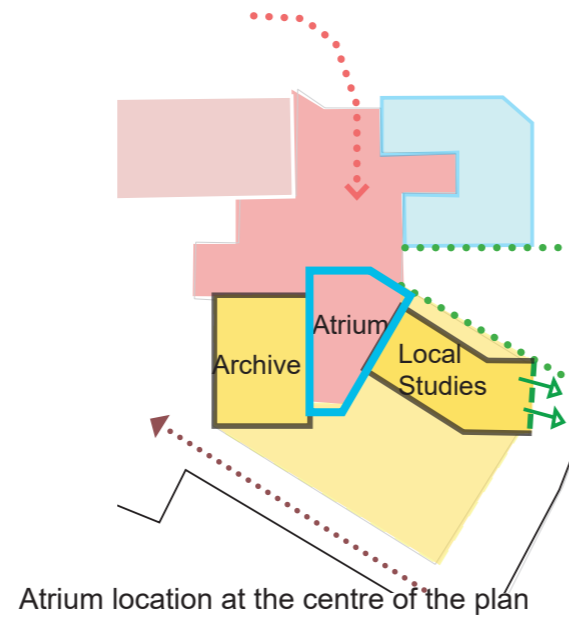
The block to Athgarven road contains the children's library on ground floor and the adult library on first floor, while the block to the south facing courtyard at the rear contains a multi-function space on the ground and a first-floor teen library space. Above these spaces is the heavy mass of the passive archive.



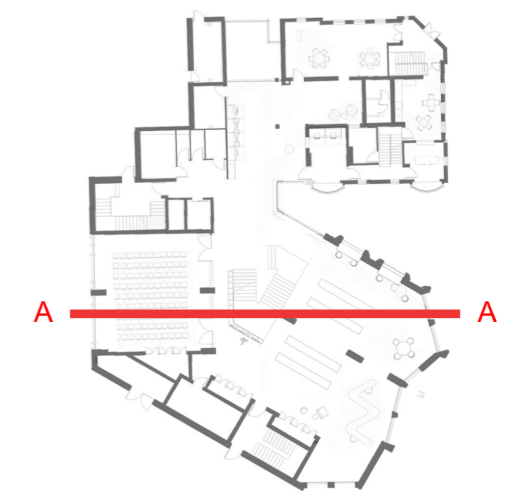
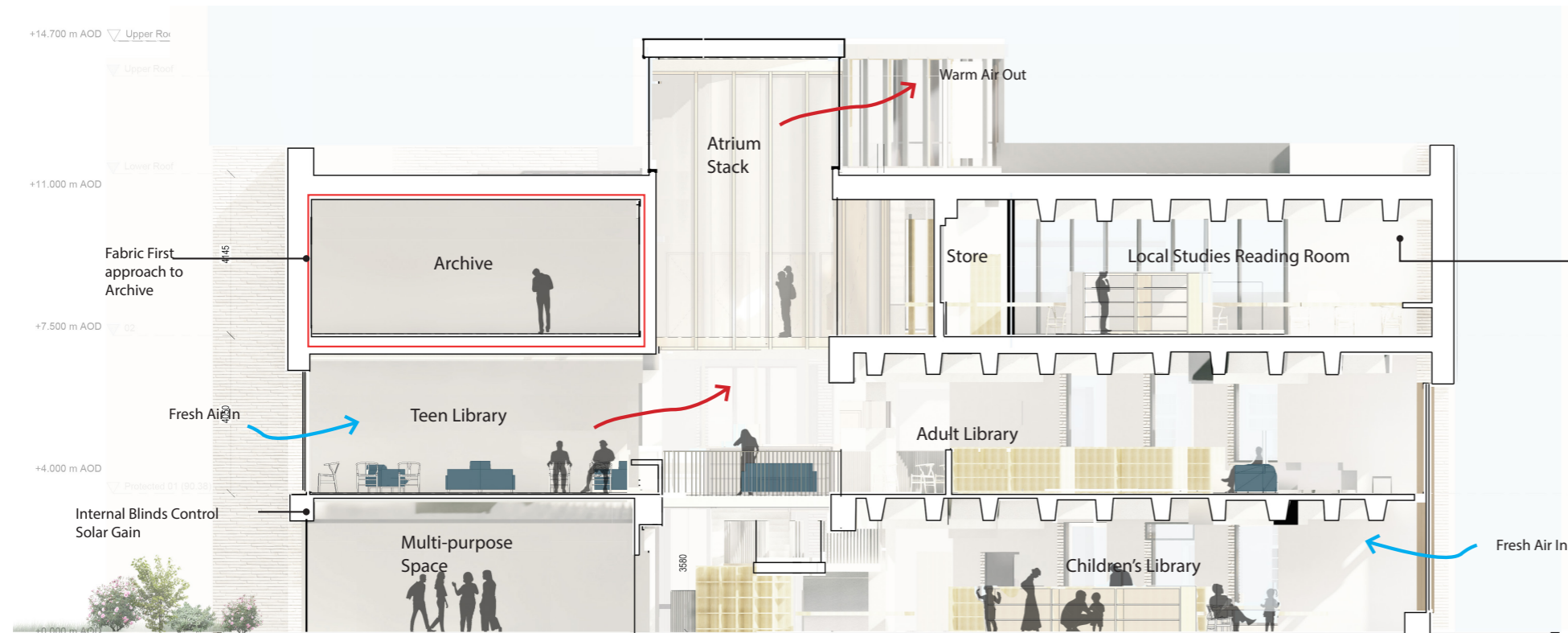
2.0 Design Progression

2.2 Expressing the Local Studies and Archive

The third floor contains the Archive and Local Studies, the archive consists of the archive store, a number of offices and a reading room overlooking the Main Street. This is expressed as lantern onto Main Street visible from the heart of the town which is elevated relative to the building. This lantern signals the entrance located below is at ground level between the Riverbank and the protected structure. The three storey volume steps forward next to the Riverbank to create a welcoming prominent entrance structure and then sweeps back at an angle to align with the corner of the existing protected structure. The Local Studies area also consists of office space, stores and a public reading room. The reading room is located on the chamfered corner turning to face the Liffey Park. It is expressed as a cantilevered mass on Athgarven Road addressing the important approach view from the bridge.



Archive and Local Studies visual connection from lower floors

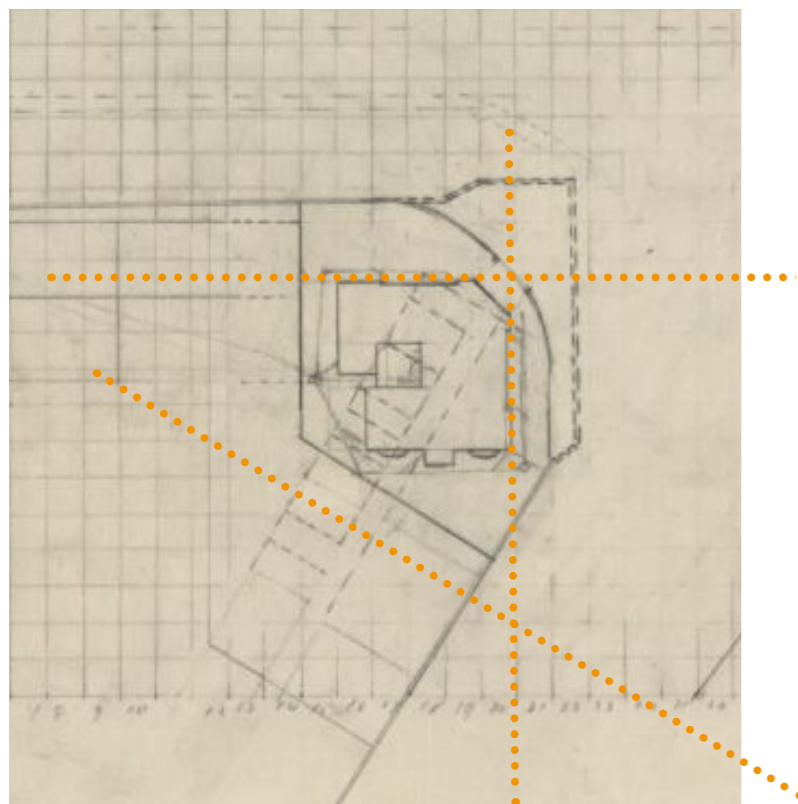


2.0 Design Approach

2.3 Setting out

The proposed setting out of the building takes inspiration from the old Sargent's Sketches of the protected structure, shown to the left, apparently setting out the initial form and orientation of the library on its site, overlaid on the Infirmary Stables.

The proposed library grid adopts the grids of the infirmary stables and the Protected structure. The Orientation of the library means that it's upper floors with enjoy views towards the Wicklow mountains and the north view up the river.



Old Sketch of Infirmary Stables and Protected Structure Overlaid

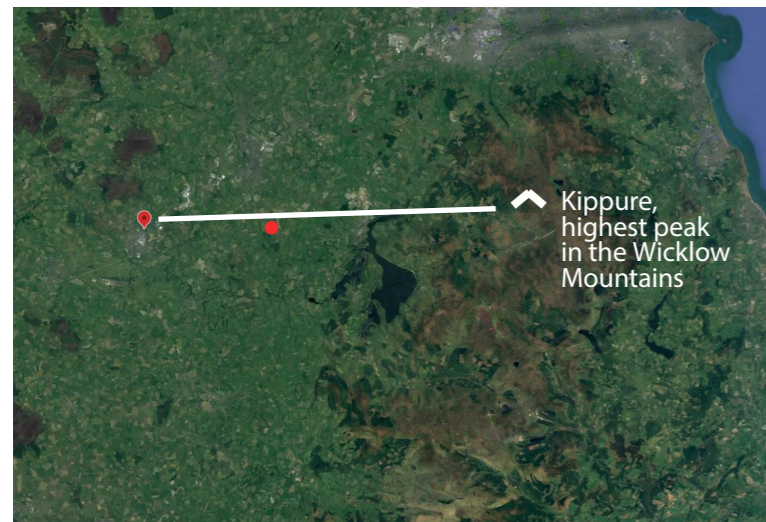


Proposed grid mirroring Old Sketch

2.0 Design Approach

2.4 Orientation and Views

The Orientation of the library means that it's upper floors with enjoy views towards the Wicklow mountains and the north view up the river.



2.0 Design Approach

2.5 Form and massing

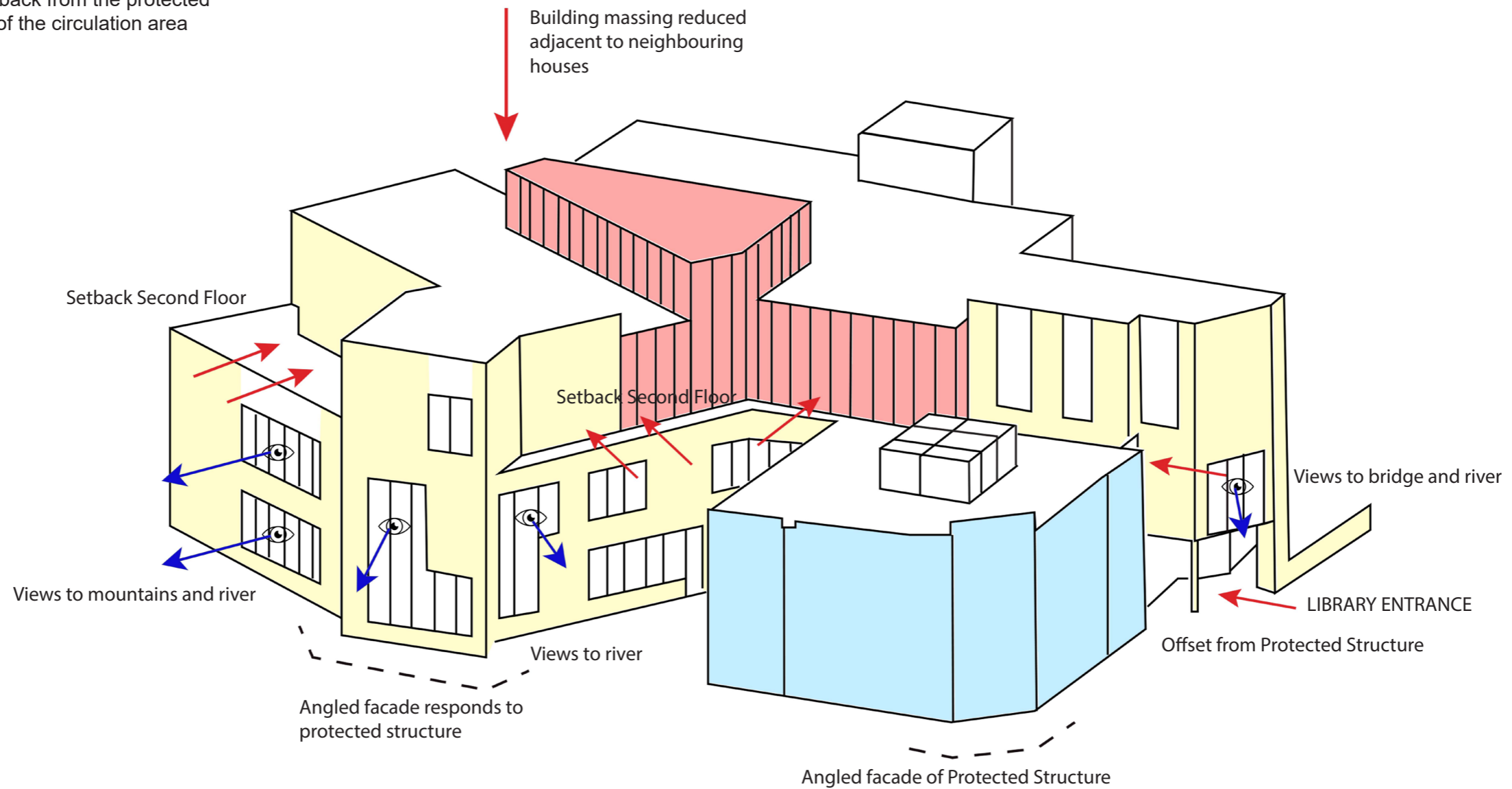
The design emerged from the idea that the new Library, Archive and Cultural centre was a version of Newbridge in miniature, consisting of a pair of Villas, a Townhouse, a Garden and a Courtyard all linked by a Street.

A linking structure forms the entrance off the main street linking new with old. This structure continues back like an internal street, linking the main street with the large staircase in the centre of the building. The glazed atrium brings light and air deep into the plan. The new building steps back from the protected structure, allowing views out of the circulation area back to the Liffey Park.

The brief calls for the Archive and Local studies to be separate. The Local studies and Archive sit above the main library space. The Local studies room is orientated towards the views of the river. Both the archive and the local studies are visually connected to the rest of the library, through the atrium. The spaces where the collections are housed are differentiated by a masonry facade fronting onto Athgarvan Road and the rear courtyard

The volume is eroded towards the rear courtyard to a 1 storey massing in sensitivity to the neighbouring gardens. A 3 storey volume holds the corner on Athgarvan Road mirroring the canted entrance and raised parapet line of the protected structure. This 3 -storey volume takes the grid of the protected structure allowing for a recess to the courtyard providing more distance between the new building and the protected structure.

This is a Conservation led approach ensuring that the protected structure did not become overwhelmed by its new neighbours. The Conservation Architect JCA welcomes the proposed approach as it allows the existing building to 'breathe' and creates a cluster of equally weighted components.



2.0 Design Approach

2.6 Elevational Treatment

The strategy for materials and structure has evolved in the context of the architectural precedents and the environmental approach. The materials will be masonry, whether brick or cast stone and a singular cladding material will be employed. The intention is to use the material to reinforce the singularity and refined nature of the new architectural composition establishing a strong public facade and identity for this important new project.

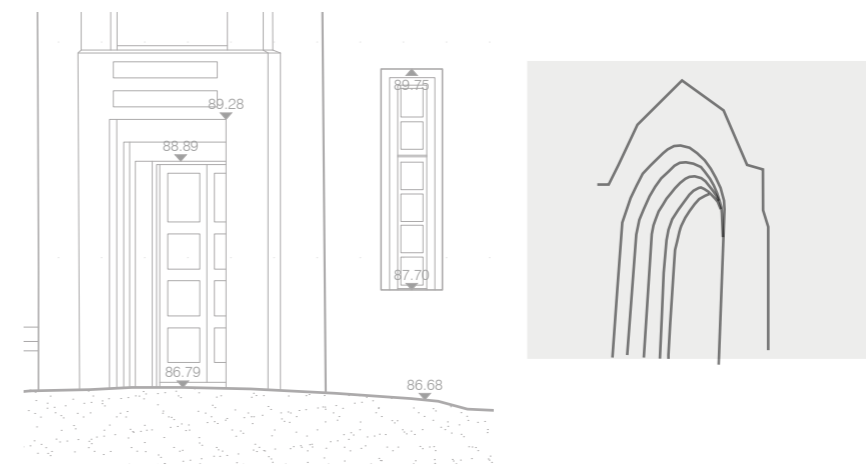
Where windows are provided these are to be purposeful large openings for specific views in and out with daylighting provided through facade windows and rooflights. Large glazing panels will be carefully detailed with complementary frames, surrounds and reveals.

References to the Art Deco and Newbridge College are made with the inclusion of a stepped reveal and a strong 3 storey tall volume on the corner.

External surface materials will be high quality as described in the Landscape Report.



The Kodak Building - strong corner and stepped parapet

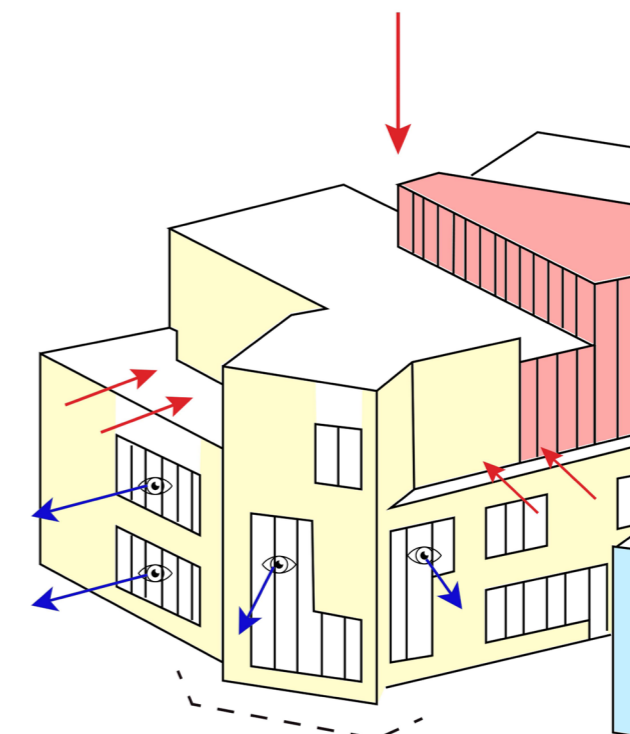


Staggered reveals are a common feature of Art Deco buildings. These are expressed on the corner entrance bay of the Protected Structure

Stepped reveal Newbridge College



Proposed corner to Athgarvan Road



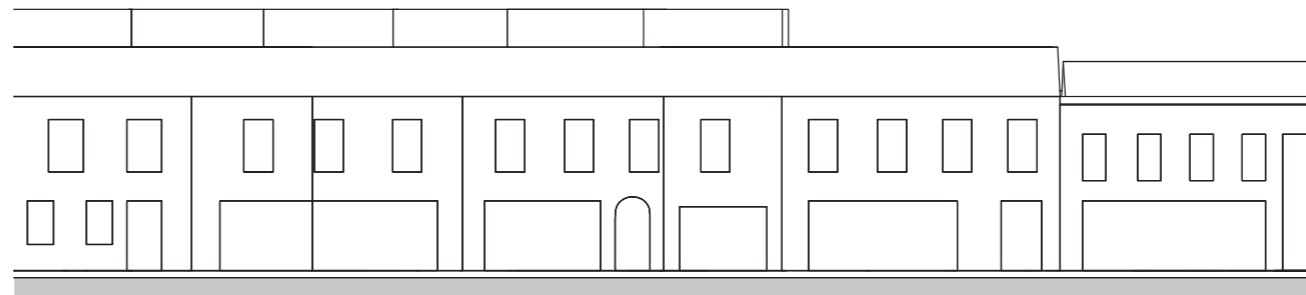
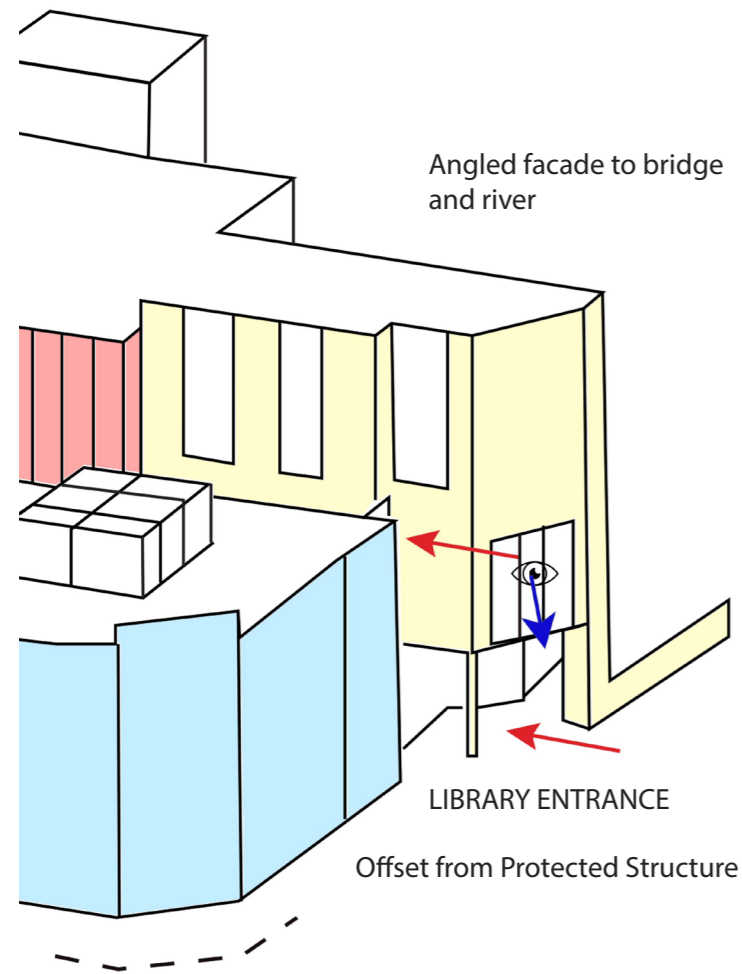
Angled facade responds to protected structure - strong corner with large parapet

Windows engage with language of protected structure.

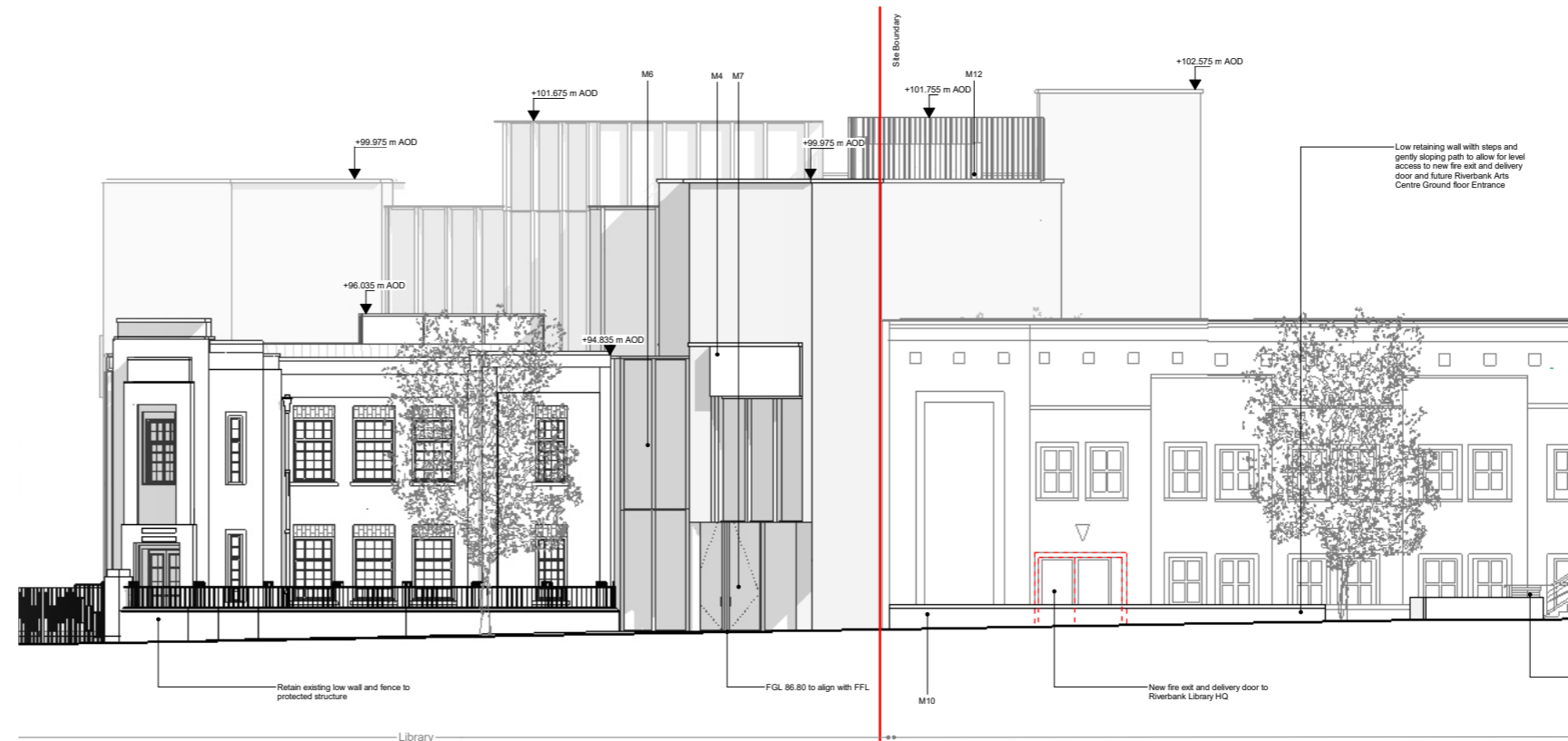
2.0 Design Approach

2.6 Elevational Treatment

The Main Street elevation makes reference to the building grain on the opposite side of the Main street. The facade projects onto the Main Street aligning with the groundscape of the Riverbank arts centre. It is then steps back into form a setbank to the protected structure.



Elevation of other side of the Main Street shown the historic grain of elevations to the street



Proposed Elevational treatment of Library on Main Street

2.0 Design Approach

2.7 Public Realm and Access for All

Metropolitan Workshop were instructed by the client that the pavement and parking spaces on the road outside Riverbank are to be taken into the red line boundary of the site – to allow the loading bay/ bays to be included.

What is needed at the roadside is the loading bay, bus stop and accessible car spaces. The cycle lane is to be included.

This is to be designed to match the overall cultural quarter/ TRP public space works and NTA plan for the junction of Main Street and Athgarvan Road.

The entrance to the rear courtyard will be repositioned from Main Street to the Athgarvan Road to facilitate the new development.

The existing car parking and set delivery to Riverbank Arts Centre will be retained as far as possible commensurate with the delivery of the new project.

The existing street trees on the Main Street and the low wall and railing in the curtilage of the protected structure will be retained. The exterior surface around the building will be of good quality and the dimensions generous enough to cater for crowds visiting the library and the Riverbank Arts Centre

The internal courtyard could be used for outdoor events and markets as part of the ambition for the cultural quarter.

The public nature of the building require the highest level of accessibility possible to ensure all users can interact with and benefit from the facilities in the building. “A changing places” room is available at the Ground floor. this should be viewed as a resource for the whole town.

© Metropolitan Workshop 2023



Public Realm Main Street



Public Realm Athgarvan Road



Main Street View





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3.0 Technical Considerations

3.0 Technical Considerations

3.1 Technical Considerations

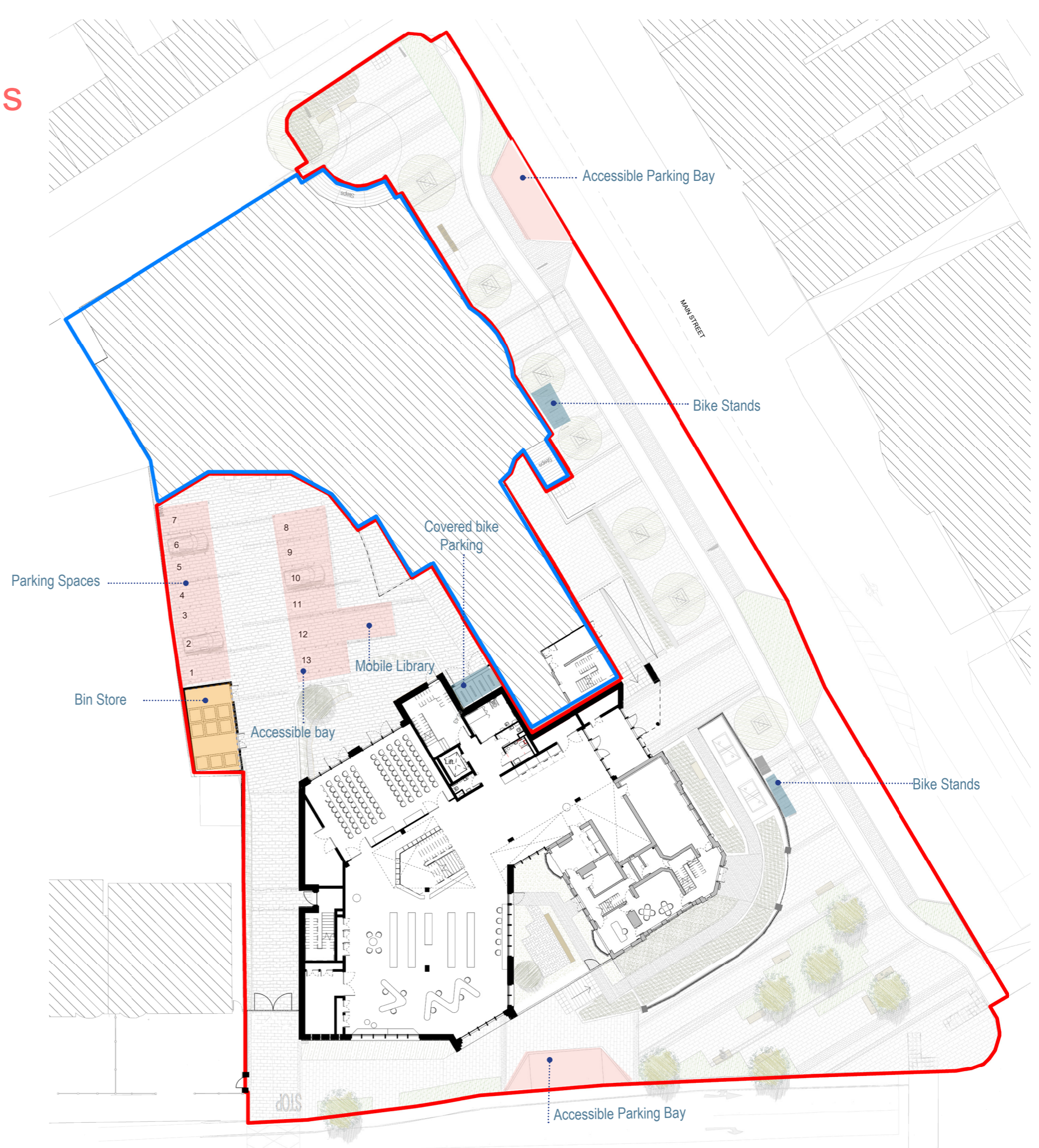
The proposed Main Street public realm will provide a loading bay, bus stop and 2 no. accessible car parking spaces alongside the provision of a new cycle lane.

A limited number of parking spaces will be provided in the courtyard to the rear of the library. This courtyard will be accessed off Athgarvan Road. It is proposed that 13 no. spaces will be provided within the internal courtyard which would consist of 10 no. standard car parking spaces, 1 no. accessible space and 1 no. service vehicle parking space which is for the mobile library.

Electric Vehicle (EV) charging will be provided on these spaces in line with the revised requirements of Part L of the Building Regulations (Conservation of Fuel & Energy – Buildings other than Dwellings) 2021.

It is proposed that cycle parking is provided within the internal courtyard to help promote cycling for staff to the Library. It is proposed to provide 8 no. covered cycle parking spaces within the courtyard for staff and 20 no. cycle spaces along the main street for visitors. The cycle parking spaces are envisioned to be Sheffield stands with the staff parking to be covered.

Refuse
A designated bin store to the inner courtyard deals with the refuse and recycling for the new Library, Riverbank Library HQ building and Riverbank Arts Centre (approx 9 bins)
Collections will be from Athgarvan Road.

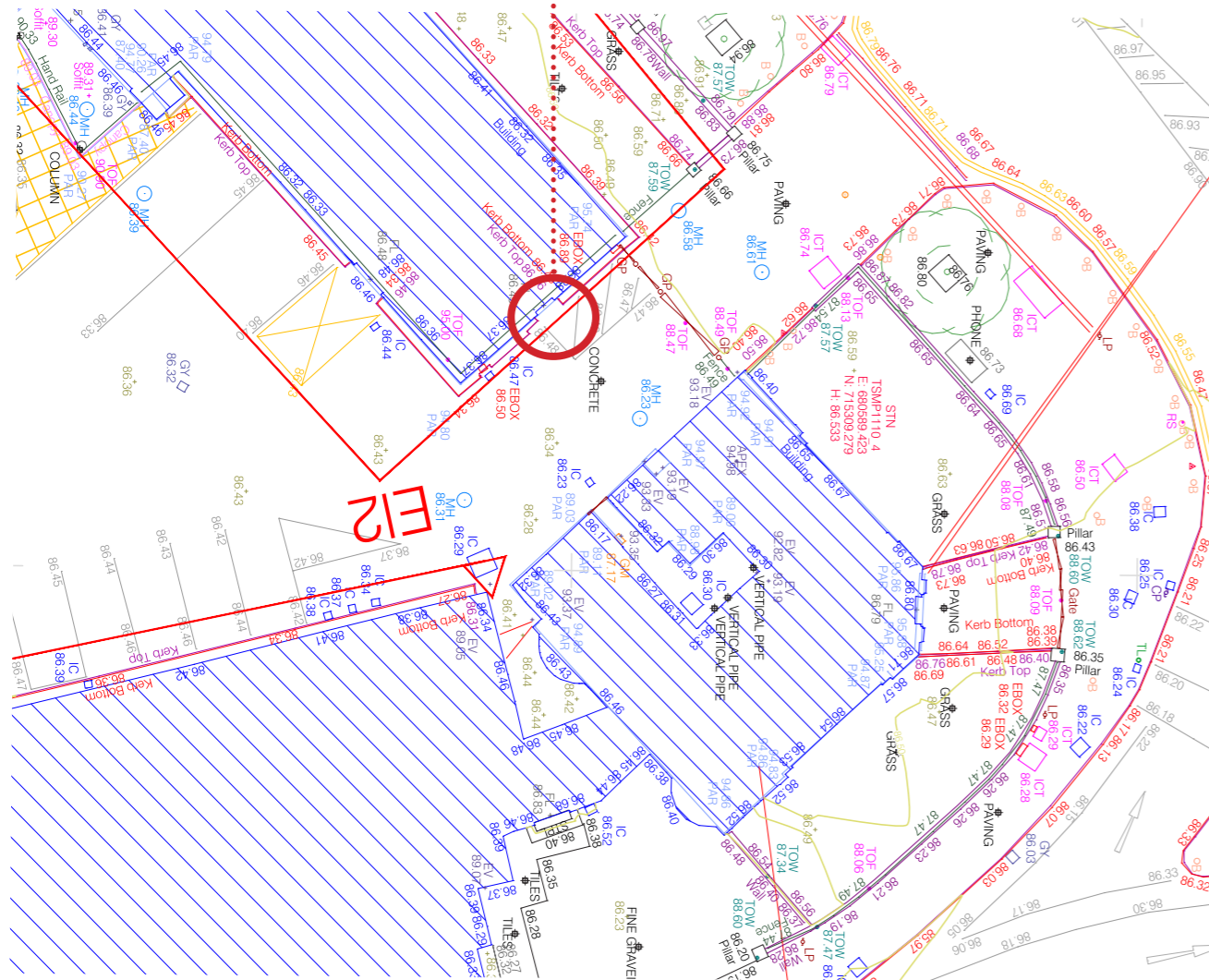


3.0 Technical Considerations

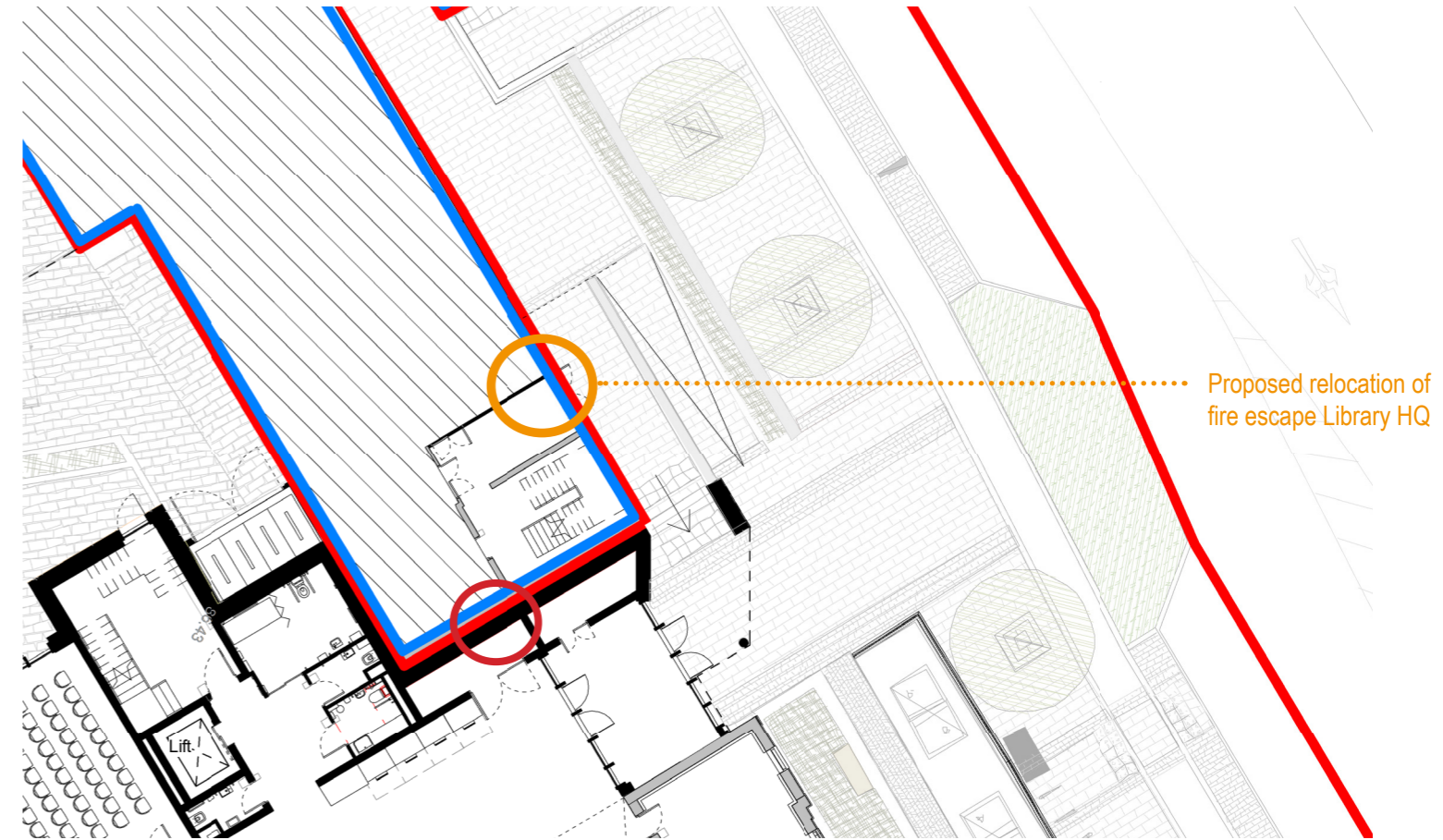
3.2 Riverbank Library HQ Fire Escape

The new building blocks an existing Fire escape route to the Riverbank Library HQ . A new entrance is proposed to Main Street

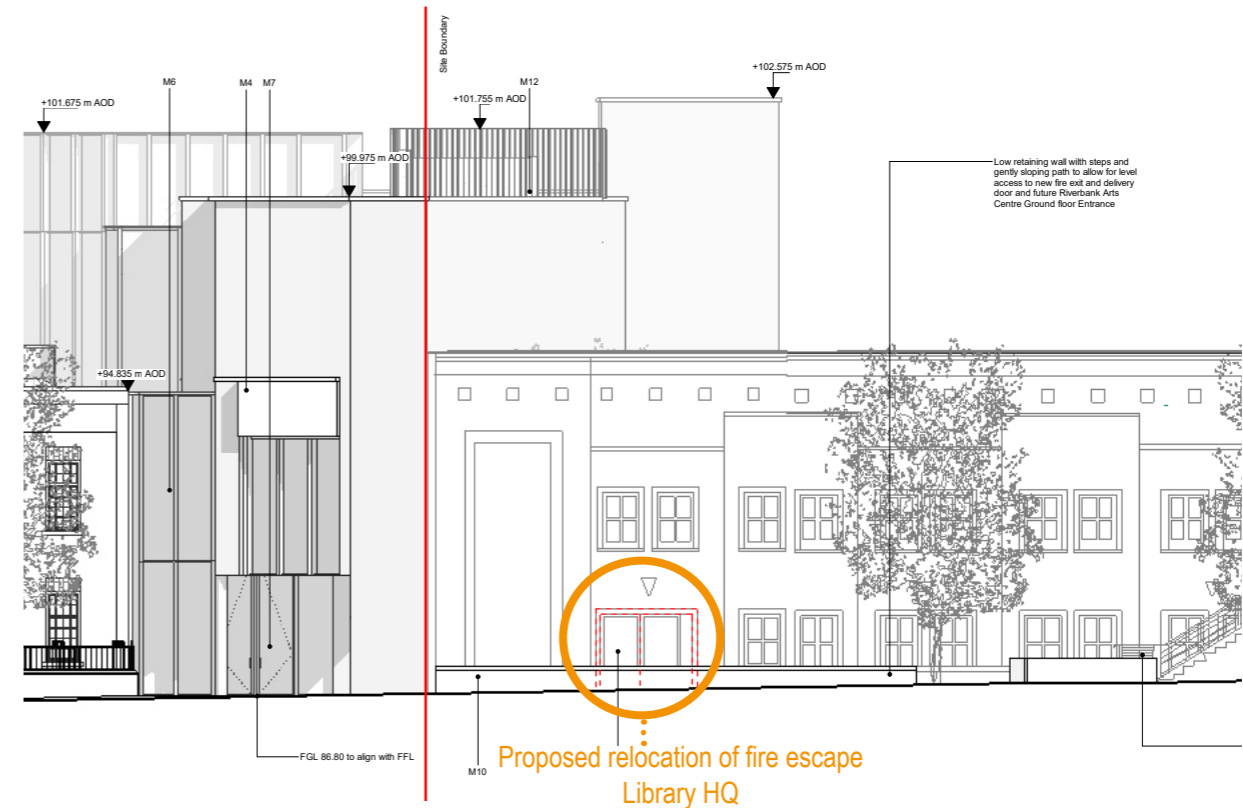
Location of existing fire escape Library HQ



Existing Topographical Survey



Proposed relocation of Fire exit



Proposed relocation of fire escape Library HQ

3.0 Technical Considerations

3.3 Surveys and Site Investigations

The design team carried out the following: desktop analysis of the site (including archaeology), commencement of building surveys, procurement of site investigations on behalf of client, site visits to review the protected structure and wider context.

The assessment of the protected structure was essential to identify any repair works necessary to the existing timber and structure and will help inform the project cost budget and tender design.

The consultants reports will detail their results of desktop analysis completed.

Survey Status summary:

- Topographical survey: Complete and survey information received.
- Measured Building survey: Complete and survey received.
- GPR/ Below Ground Utility Survey: Complete and survey received.
- Timber and Damp Survey: Complete and survey received.
- Building Investigation Survey/ Opening Up works: Complete and survey received.
- Asbestos Survey: Complete and survey received
- Window Study Report: Complete and survey received.
- Ground Investigation survey tender: Complete
- Bat survey: A bat assessment report was done in lieu of the bat survey because we were out of season. No Bat survey is required.
- CCTV survey: Complete



Above: Image from Draft Newbridge Town Renewal Plan

3.0 Technical Considerations

3.4 Natural Daylight and Ventilation

During the pre-planning design development, several ventilation and overheating strategies were considered for the library to achieve the following objectives:

1. To maintain good air quality levels throughout the spaces at all times of the year.
2. To minimise overheating in summer months.
3. To minimise energy consumption and associated carbon emissions associated with HVAC plant.
4. To minimise the acoustic impact of traffic noise (from openable windows) in the library spaces from the adjacent roads.

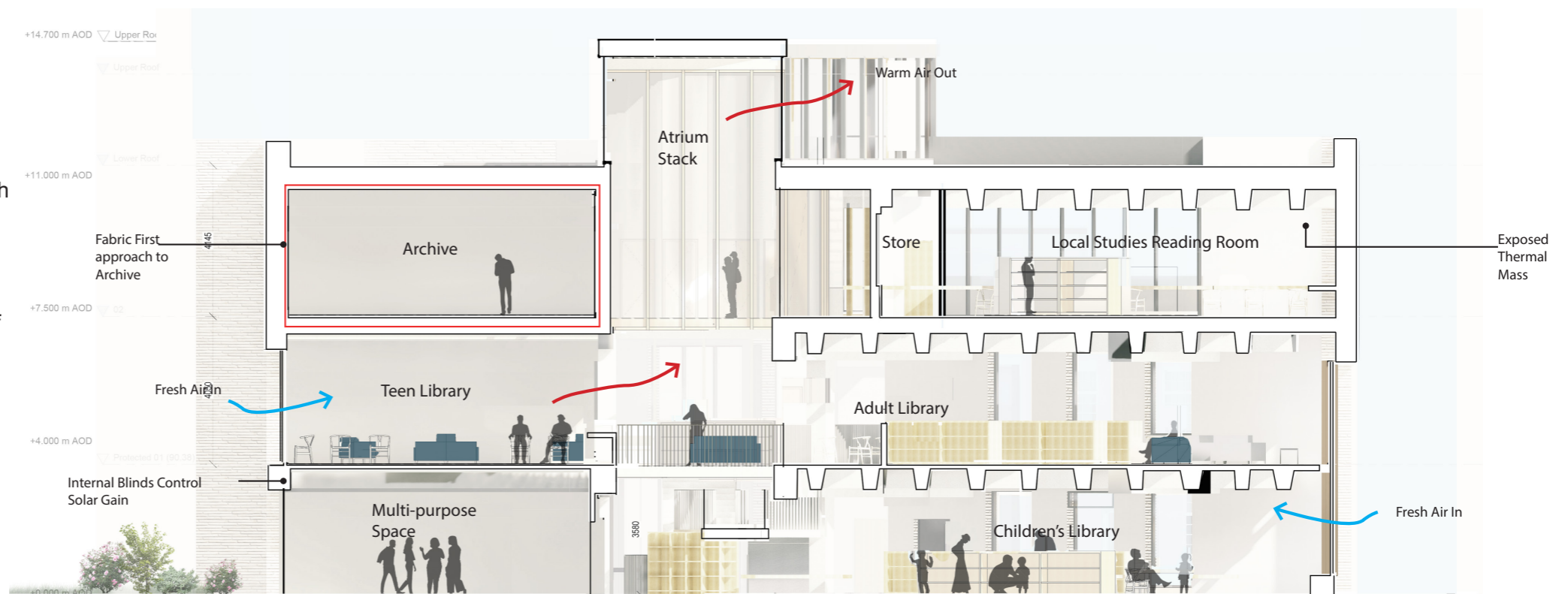
The proposed option a utilises mixed mode system incorporating mechanical ventilation for year-round ventilation and openable windows for summer overheating.

A key driving force behind our design approach is to maximise the potential for natural daylight and passive ventilation in order to minimise energy demand. The large Atrium with rooflight “Winter Garden” provides daylight within the heart of the building and draws warm stale air from the surrounding spaces up and out of the building. Fresh cool air is drawn in from the external façades at low level.

The location of the Atrium is in a central location, providing daylight and ventilation to a deeper part of the plan in between the key library spaces.

On -site renewables will be provided by the use of Air source heat pumps and PV panels on the roof. These will be carefully located and will be shrouded from view behind the upper parapets.

Please refer to the Energy and Sustainability report for more detail on the proposed strategies



3.0 Technical Considerations

3.5 Schedule of Accommodation

Totals	Proposed Location	Dept Approved Design Room Area sqm	Proposed Room area sqm	Proposed Shelving	Existing Library Shelving	Proposed desk seating	Proposed soft seating
Totals	Protected Structure + New Buid	2238	2170	1688	945.5	259	56

2340 if you include multifunction rm

Totals	Gross Internal Area sqm
GF New Build	710
1F New Build	700
2F New Build	550
Total	1960
GF Protected Structure	150
1F Protected Structure	150
Total	300
Total Gross Internal Area	2260
Existing single storey extension building to be demolished (1970's building)	450

4.0 Proposed Works to the Protected Structure and Design Development



*Front elevation from the design drawings, by Alma Kingsley Sargent,
sourced from the Irish Architectural Archive*

4.0 Protected Structure

4.1 Proposed Works

Description

The development will consist of the repair, refurbishment and fabric upgrade works to the existing 1930's protected structure with a new 3 storey building to it's south.

The works will require the removal of the 1970's single storey pre-cast concrete structure currently located to the south east of the protected structure, which connects to it via a small lobby area where the original 1930's porch once stood. This building consists of approximately 550 sqm of space. It's condition has deteriorated over the last few years and is now in a very poor state of repair.

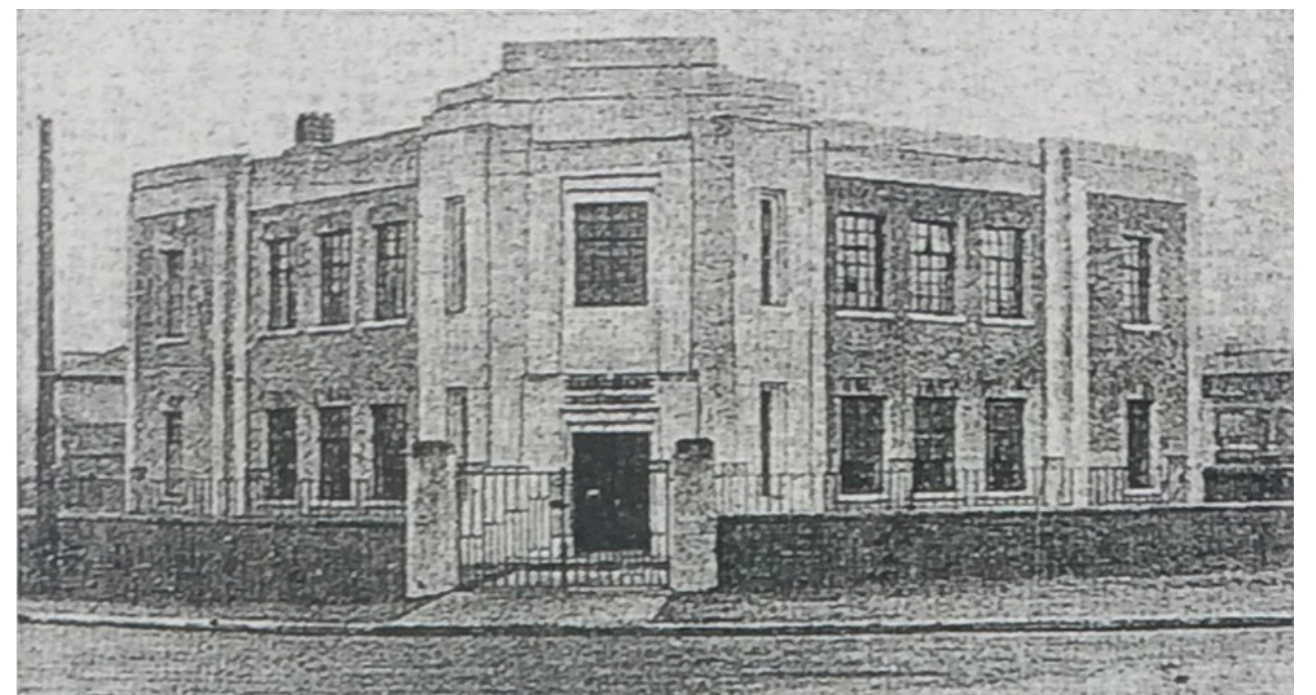
The protected structure was the original county library, dating from 1936. This art deco building currently houses the local studies section and will be repurposed for staff accommodation. It offers approx. 292 m2.

Alterations to the protected structure will consist of thermal improvement works as described below, adjustment to the layout to incorporate enhanced provisions for staff and modifications to openings to better integrate with the new structure. Refurbishment works will include renewal and repair of internal and external finishes, plaster repair works, upgrading of services and the stabilising of the structure

We have had pre-application consultation correspondence with the Conservation Officer. This report details this correspondence and subsequent design development.



View towards the main entrance to the existing library building

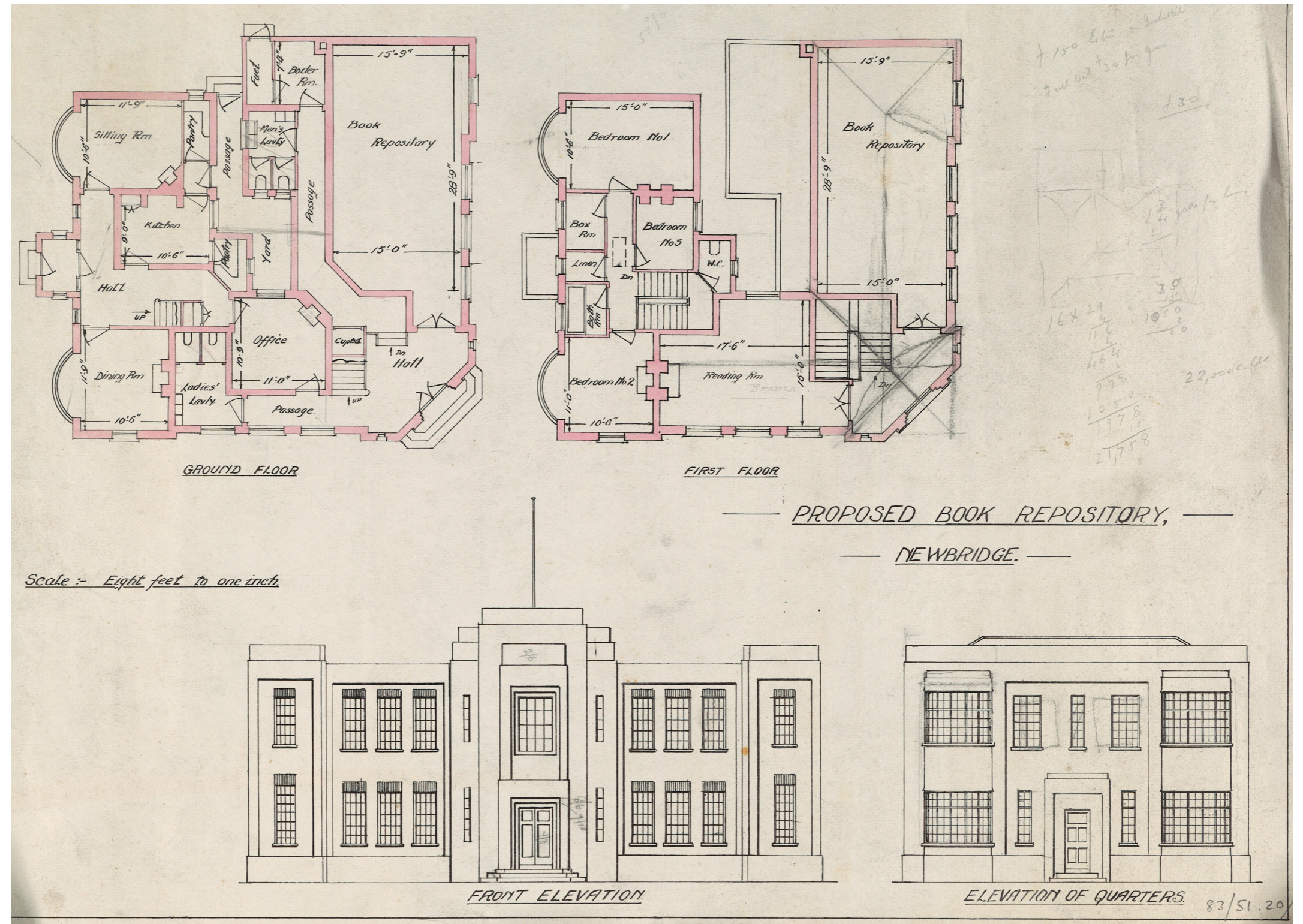


"The new library at Droichead Nua", from the Irish Independent, November 26th, 1936

4.0 Protected Structure

4.2 Old Drawing

An Old drawing found in the Irish Architecture Archive indicates the location of the initial design. This indicates the Librarian's house and the Book Repository.

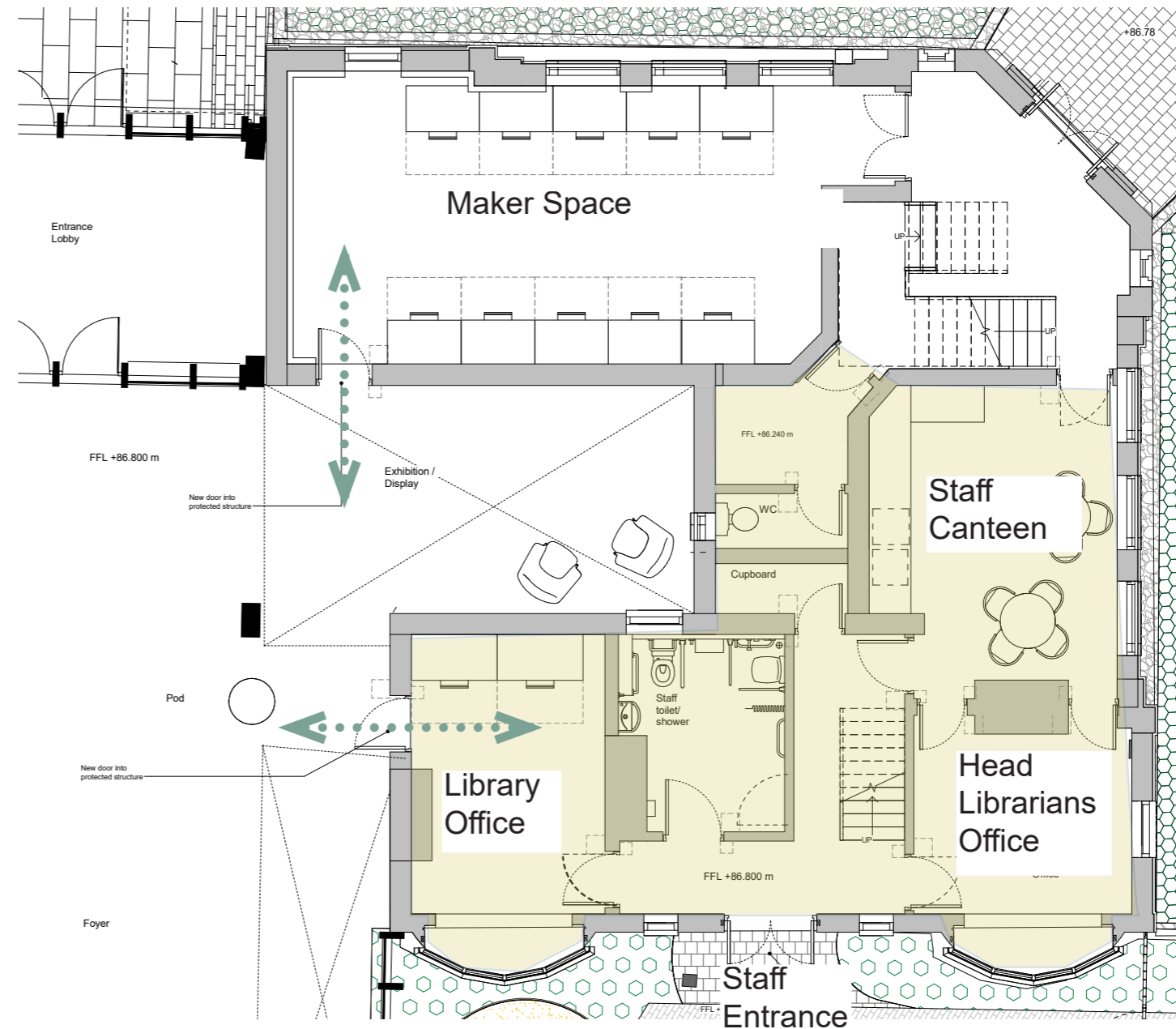


4.3 Proposed Protected Structure Layout

In contrast to the new building, The existing building is divided into a number of cellular rooms which are ideal for use of as offices and facilities to be used by staff.

The placement of the staff quarters in south east part of the Protected Structure echoes it's earlier use as the house for the librarian.

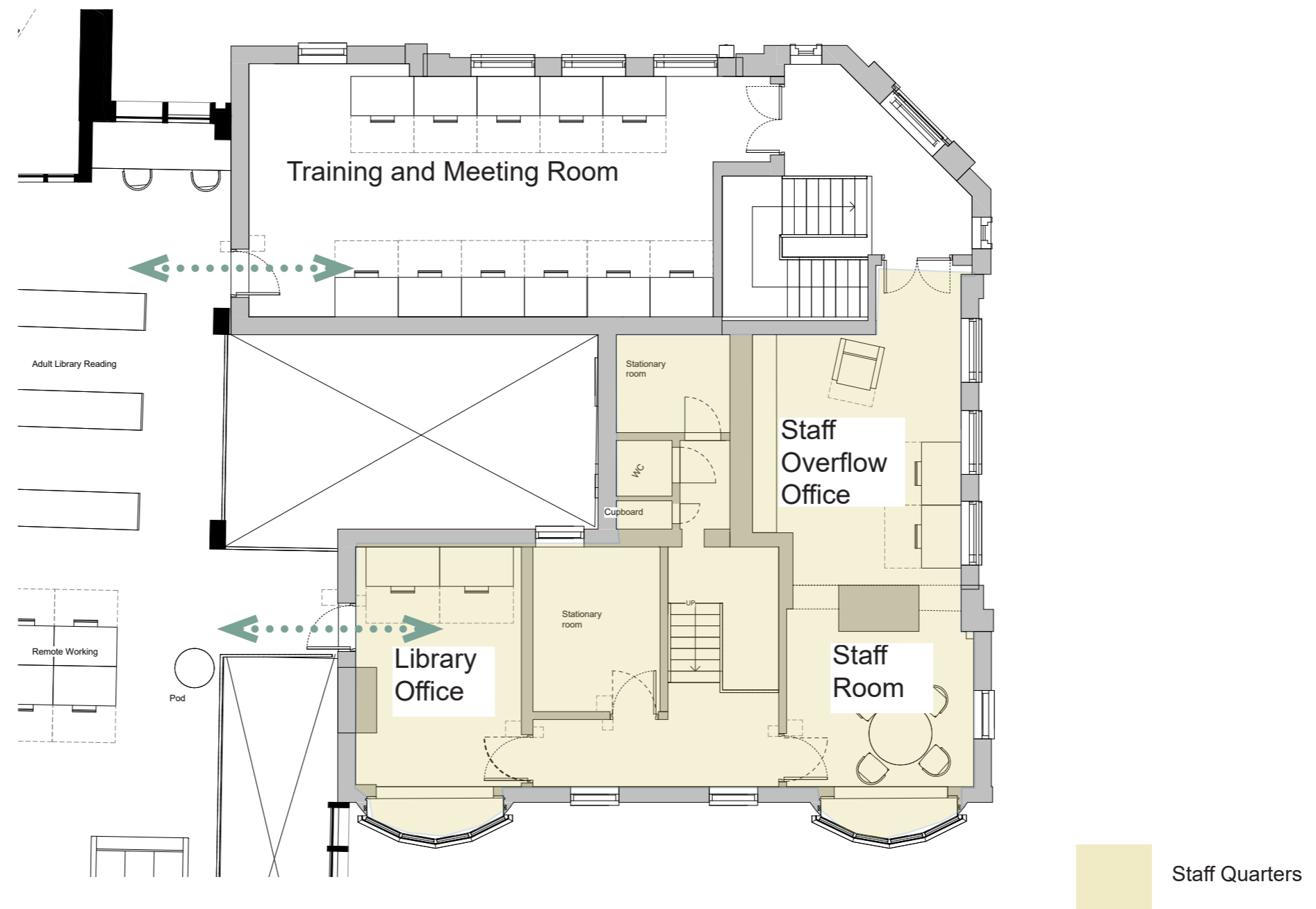
The two large 42sq.m rooms are ideal for use as teaching and learning spaces, (accessible to the public like the old book depositary) The team tested different seating arrangements for these rooms. Ideally the Maker Space would be accommodated at Ground floor level with good proximity and visibility to the main entrance and the street.



Proposed Ground Floor Layout of Protected Structure



4.3 Proposed Protected Structure Layout



Proposed First Floor Layout of Protected Structure

4.4 Scale and height of other buildings in Newbridge

Conservation Officer's Comment

- There are concerns regarding the scale and form of the proposal and its suitability regarding its location on Main Street, Newbridge; a predominately 19th century 2-storey streetscape. In particular, the inclusion of 3 storeys wrapping around the protected structure to the SouthWest, South and South-East which appears to dominate the protected structure. The western wing of the new extension should be reduced to 2-storey.

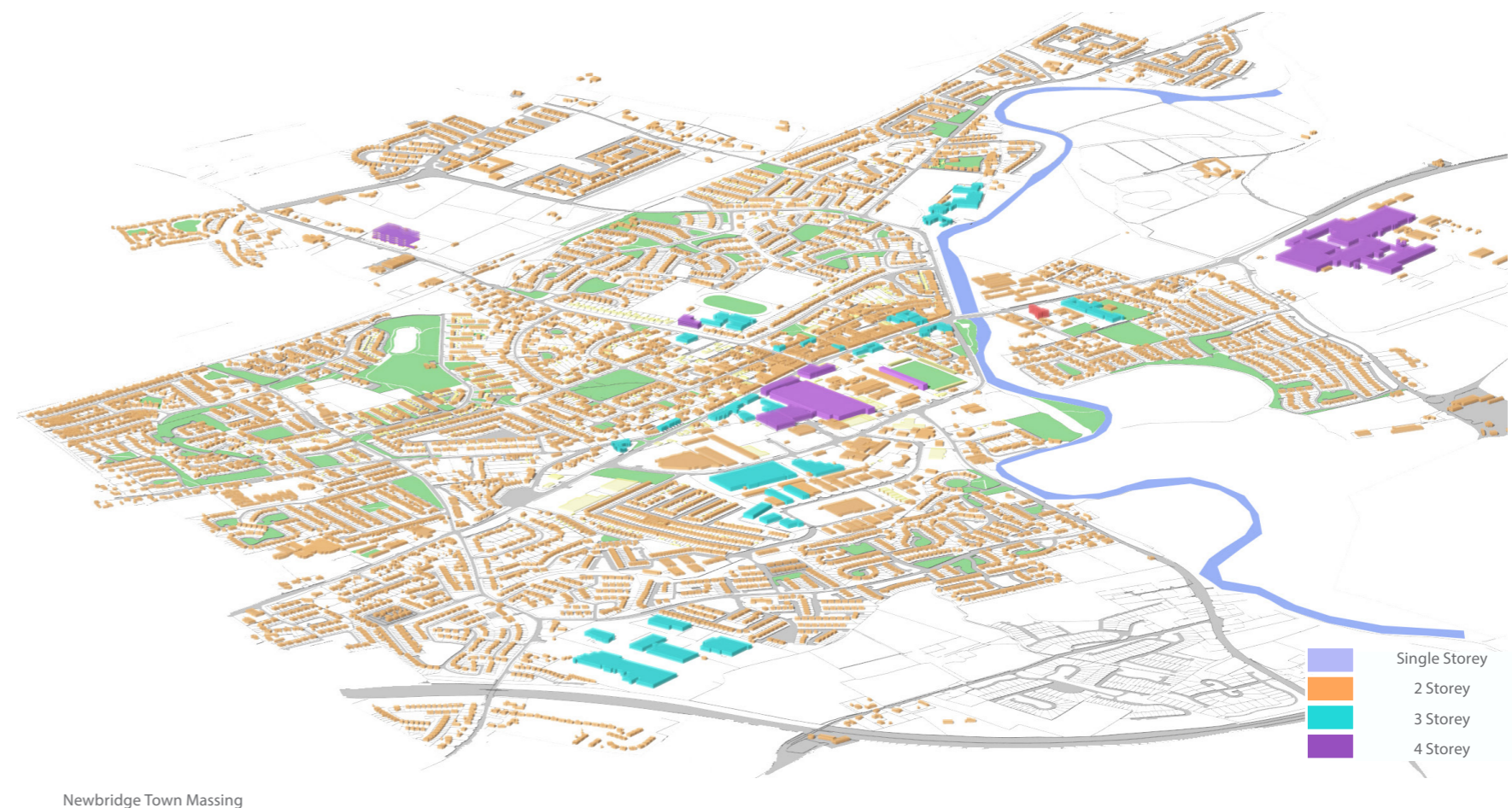
4.5 Design Team Response

We have conducted analysis of the Scale and Form of the Main Street.

While the historic character of the northern side of Newbridge's Main Street is largely 19th century, comprising small to medium plot sizes and commercial uses, the southern side is characterised by more recent development, having been occupied by the Military Barracks until the early decades of the 20th century. The present plot sizes on this side are larger, uses more mixed and their architectural expression more varied.

There are several 3/4 buildings reflective of the principle attractions in the town. Such attractions are both cultural (Riverbank Arts Centre) and retail (Whitewater, Penneys) in use.

In this context, the visual impact of the proposed scheme on the wider streetscape character may be regarded as negligible. However we have addressed the Conservation Officer's concerns with proposed alterations to the new building.



Newbridge Town Massing



Newbridge Town Centre Massing

4.6 Height of other 2+ / 3 storey Buildings in the Town



Eyre Powell Hotel



7 Main Street



Newbridge Town Hall



32 Main Street



Penneys Main Street



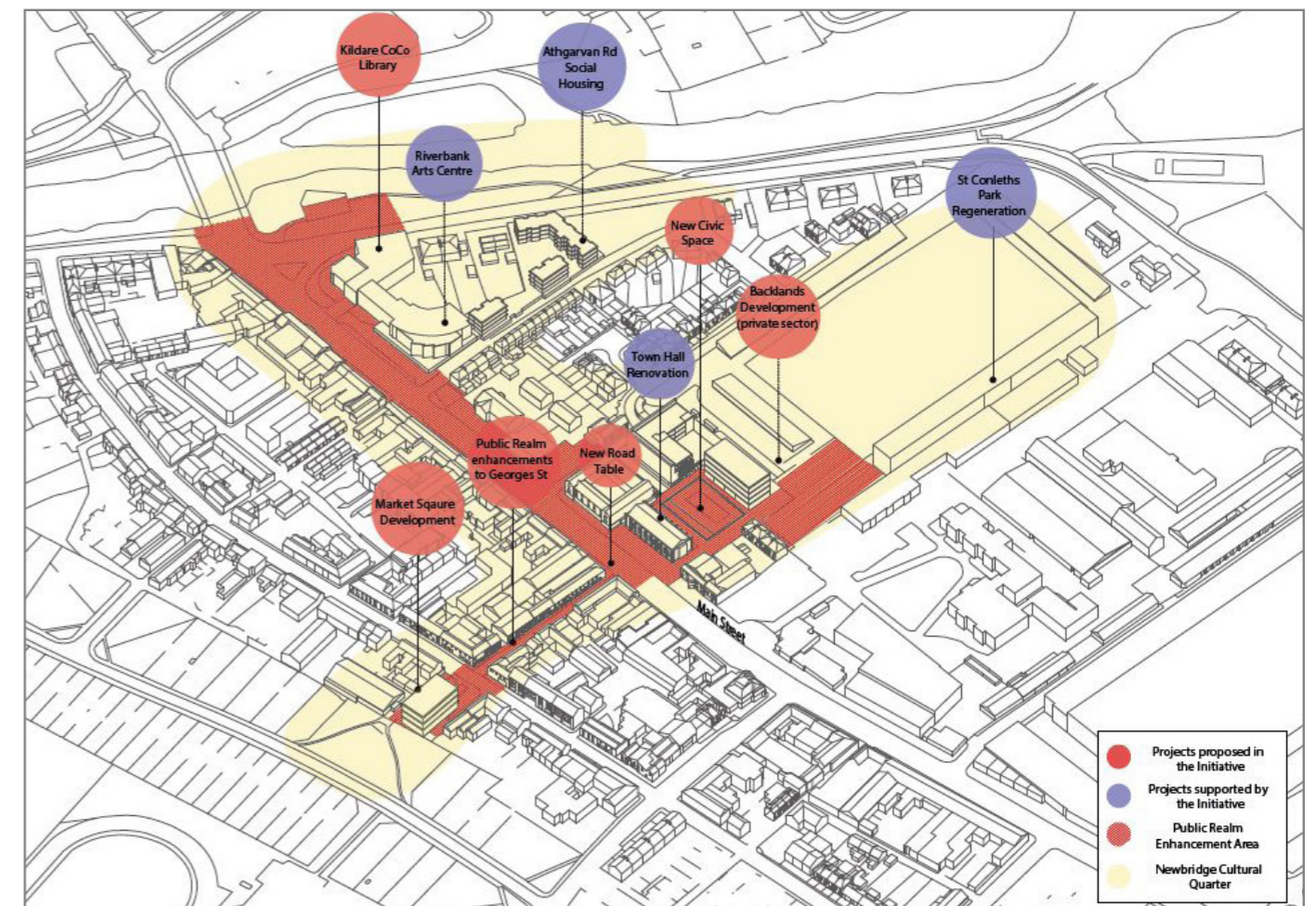
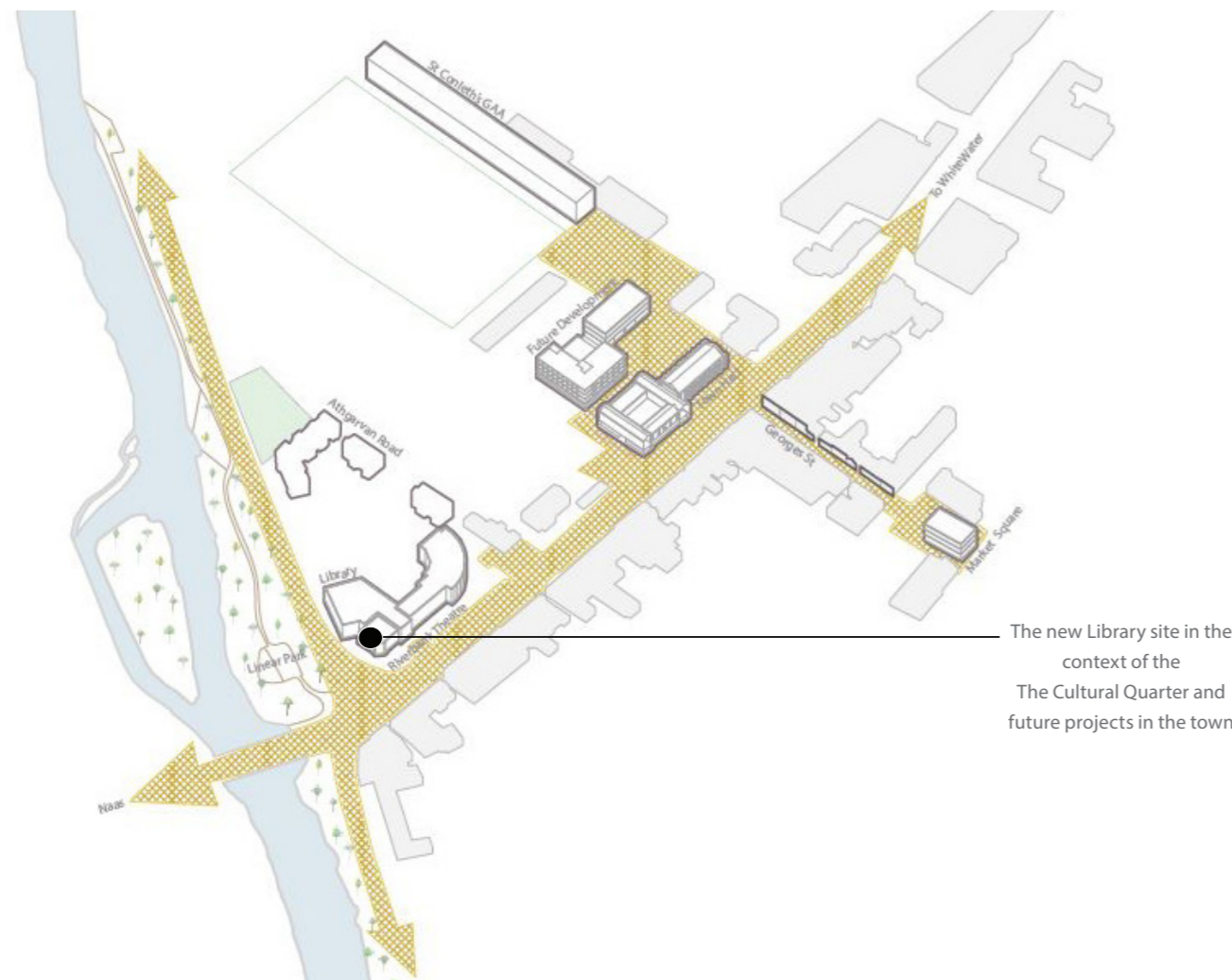
Whitewater Shopping Centre

4.7 Newbridge Town in a Microcosm

We have conceived of the new Library, Archive and Cultrual centre as a version of Newbridge in miniature. This approach evolved from our careful reading of the place, its history and morphology. It is a Conservation - led approach ensuring that the Protected Structure does not become overwhelmed by it's new neighbours. The Conservation Architect JCA welcomes the proposed approach as it allows the existing building to "breath" and creates a cluster of equally weighted components



Concept Diagram - Newbridge Town in a Microcosm

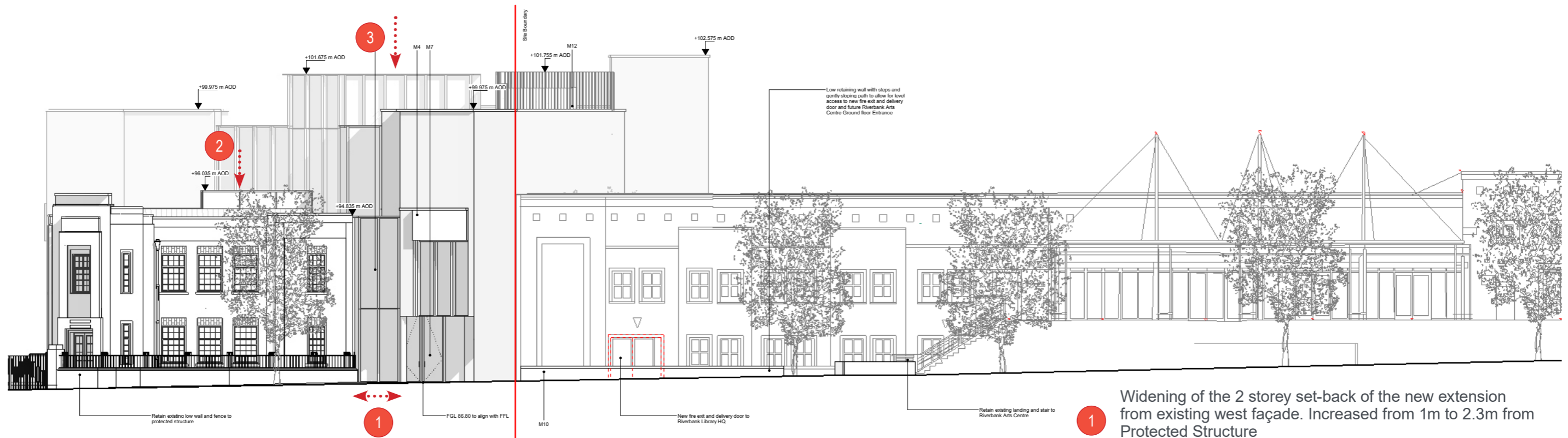


Concept Diagram - Cultural Quarter as Landmark in Newbridge

4.7 Design Development of Main Street Elevation



Draft Part 8 Main Street Elevation



Main Street Elevation with Proposed Alterations

- 1 Widening of the 2 storey set-back of the new extension from existing west façade. Increased from 1m to 2.3m from Protected Structure
- 2 Reduction in height of Rooflight to the new internal courtyard by 870mm
- 3 Reduction in height of atrium by 700mm

4.7 Design Development of Main Street Elevation

The mitigation of visual and physical impacts to the Protected Structure has been integral to the design of the new building. Mitigation against the impact of the scale of the new development is provided by the use of setbacks and changes in parapet line and materials of construction in the new building elements, which visually subdivide the elevations into a series of separate elements more appropriate to the setting of the 1934 Library and surrounding streetscapes.

The alterations propose a widening of the 2-storey setback of the new extension 2.3m away from the existing west facade. The solid pier has been moved towards the Riverbank Theatre side of the facade.

The 2nd floor glazing that wraps the Riverbank has been recessed further away from the Protected Structure

The height of the 3 -storey element corresponds with the Eyre Powell hotel opposite and the steel structure of the Riverbank Theatre adjacent

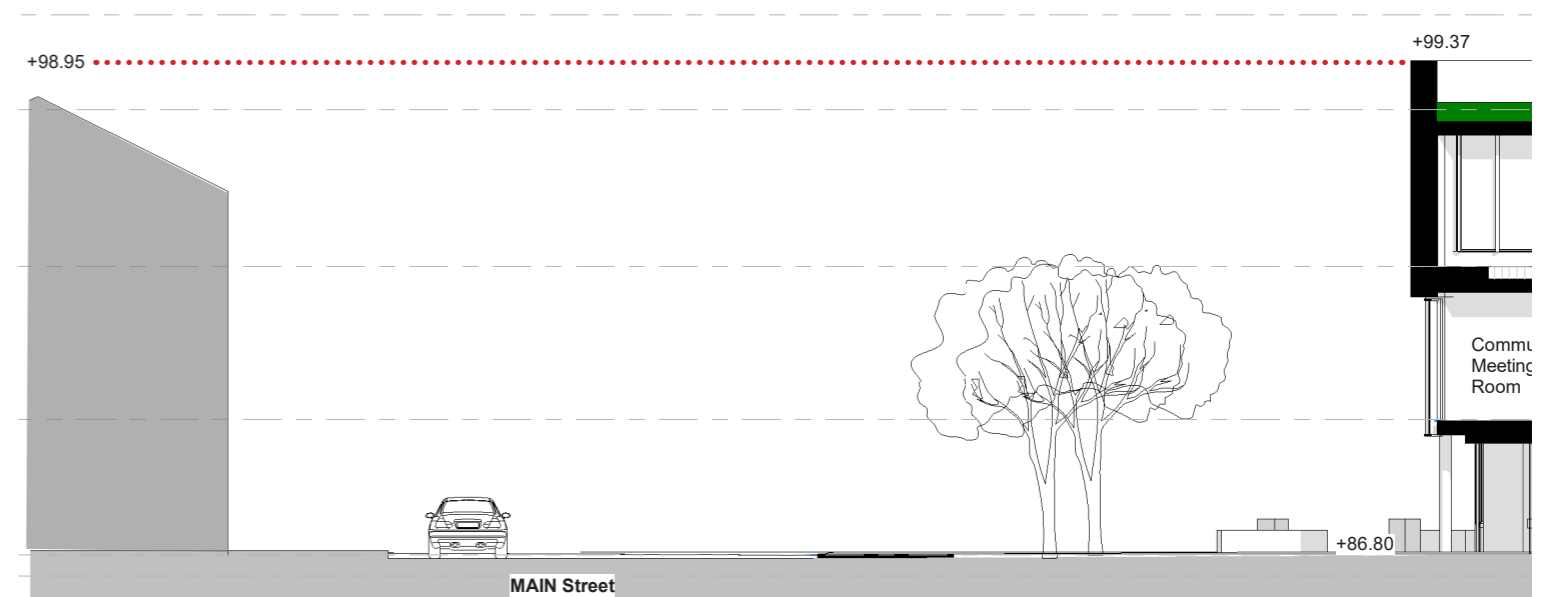


View showing proposed alterations



Widening of the 2 storey set-back of the new extension from existing west façade. Increased from 1m to 2.3m from Protected Structure

Recess of 2nd floor further away from protected structure



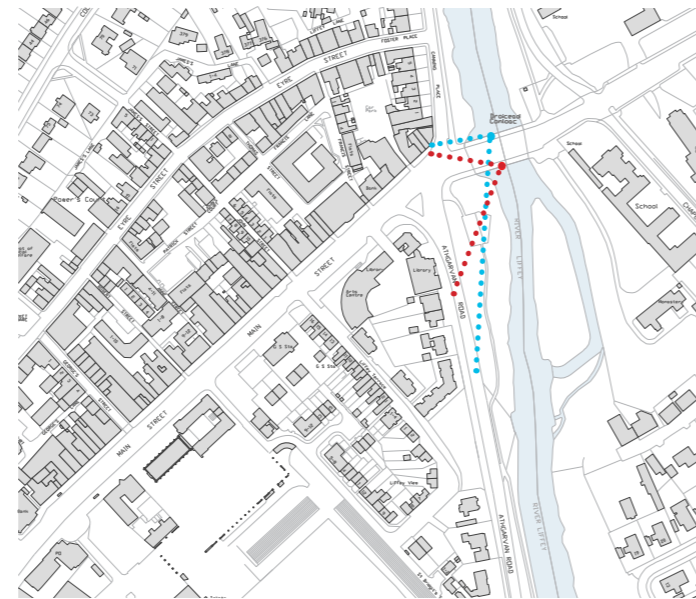
Section showing Eyre Powell Hotel and New Entrance on Main Street

4.8 Views of Proposed Scheme

With Reference to the Newbridge Local Area Plan 2013 - 2019, we have taken two views from the Bridge of the Proposed Scheme.

The two vantage points are taken from two existing photographs.

The Proposed views aim to show the impact of the Proposed scheme on the Protected Structure and the views to/from the River Liffey



- View 1
- View 2

Plan of showing vantage points from Bridge

CF 11: To support all schools in their development and implementation of a Green School Programme.

Community Objectives

It is an objective of the Council:

- CO 1: To provide for an extension to the existing cemetery at St. Conleths on the Athgarvan Road.
- CO 2: To facilitate the use of appropriate sites/buildings within the town for the provision of childcare services in tandem and in the vicinity of all new and existing residential development.

7.11 Architectural, Archaeological and Natural Heritage

7.11.1 Architectural Heritage

Detailed policies for the protection of archaeological and architectural heritage are set out in Chapter 12 Architectural and Archaeological Heritage of the CDP 2011-2017. The CDP identifies a number of protected structures in Newbridge (see Table 14 for reference purposes⁹). It is important that such features are maintained and enhanced. Vernacular architecture makes a strong contribution to the character of the towns streetscapes and it is an objective of the Council to protect where appropriate vernacular architecture in Newbridge for the benefit of future generations

It is the policy of the Council:

- AH 1: To resist the demolition of vernacular architecture of historical, cultural and aesthetic merit, which make a positive

contribution to the character, appearance and quality of the local streetscape and the sustainable development of Newbridge.

AH 2: To assist owners of structures of particular significance within Newbridge in their maintenance and repair through advice and to make grant aid available under any future Conservation Grants scheme.

AH 3: To protect those built heritage items as listed below and shown on Maps 4 and 4a of this Local Area Plan.

AH 4: To protect and preserve the views to and from those items listed below as shown on Maps 4 and 4a of this plan.

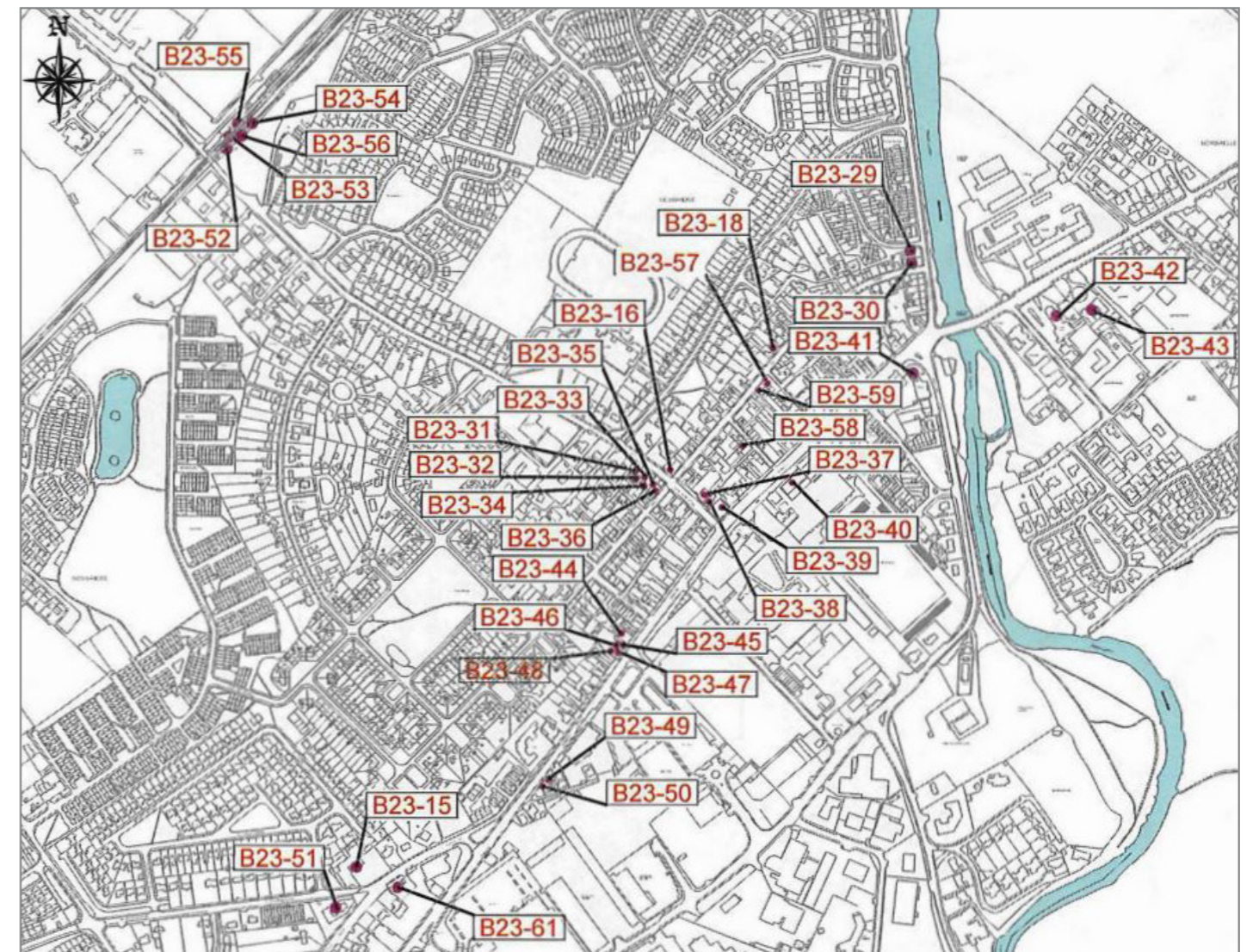
AH 5: To protect views to/from the River Liffey from St. Conleth's Bridge

AH 6: To protect and preserve the remaining sections of the original barrack walls and cavalry barracks as follows:

- * the Archway and all associated stonework on the Athgarvan Road
- * internal structures pertaining to the original cavalry barracks within the Bord na Mona and Conleths GAA grounds.



Extract from LAP 2013-2019



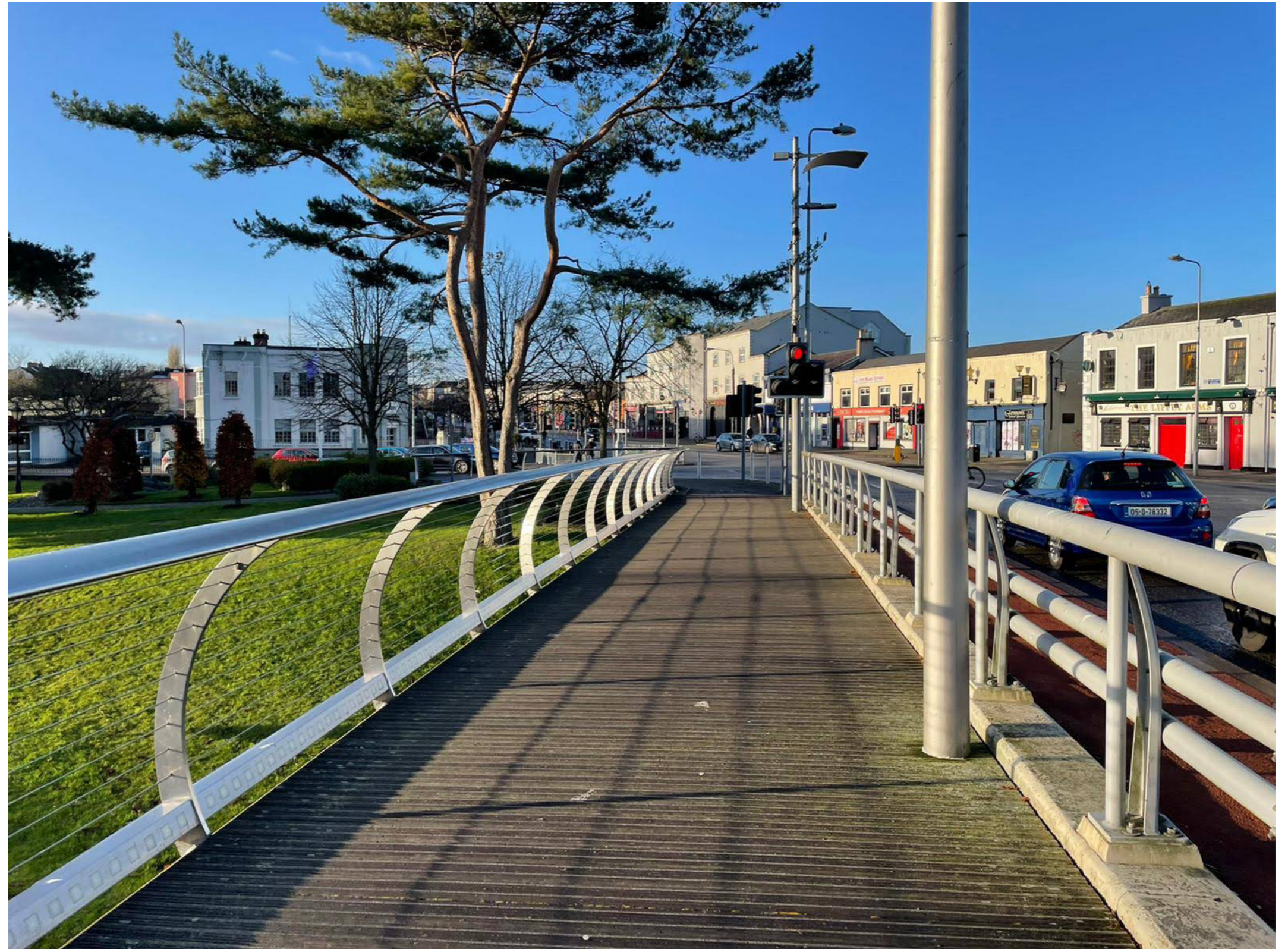
Extract from LAP 2013-2019 Protected Structures



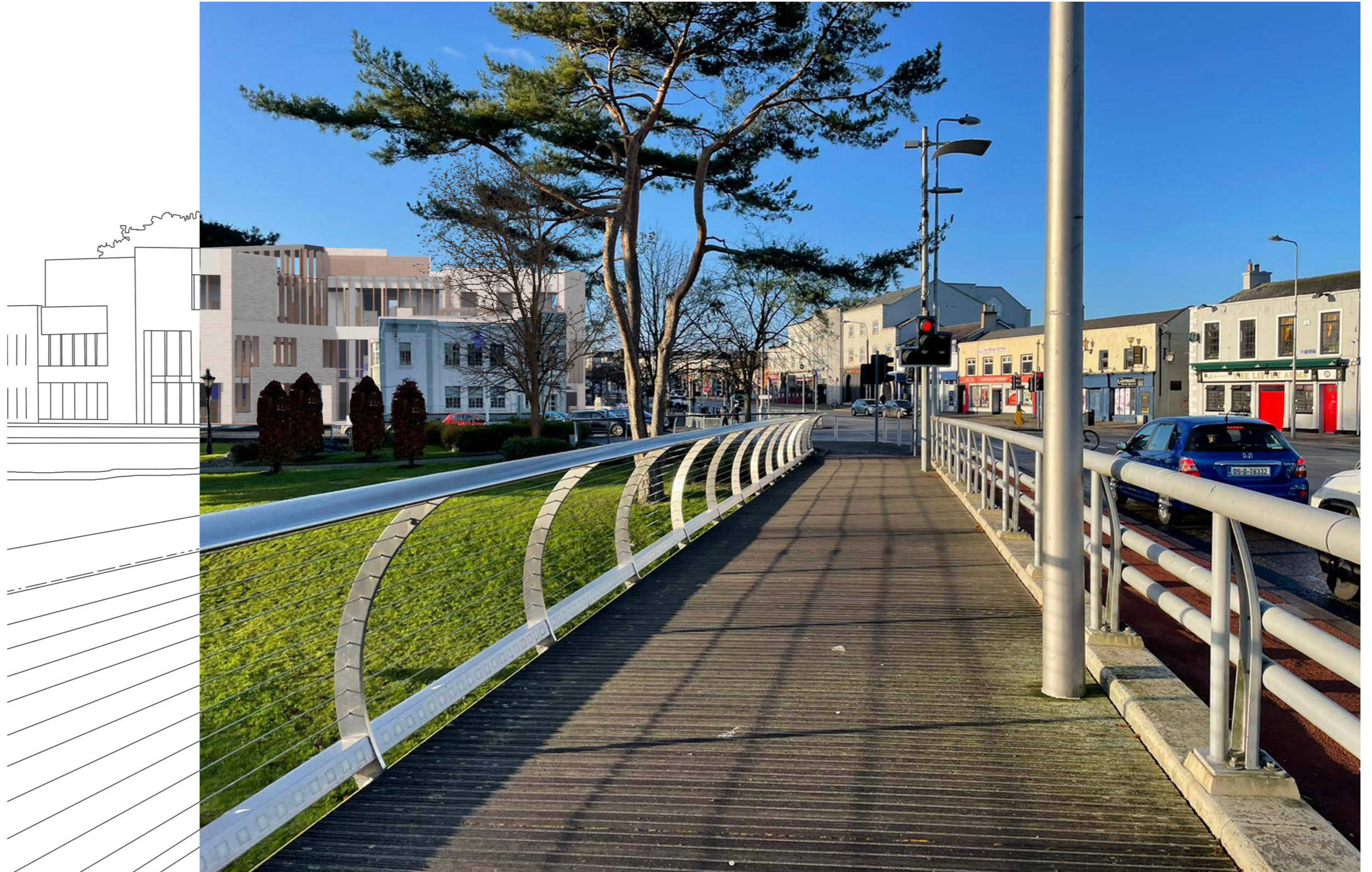
Extract from LAP 2013-2019 Protected Views

Extracts from the Newbridge Local Area Plan

4.9 View 1 Existing Photo



4.10 View 1 Proposed Scheme



4.11 View 2 Existing Photo



4.12 View 2 Proposed Scheme



4.13 Rooflight Height

Conservation Officer's Comment 12 May 2022

The rooflight over the new internal courtyard is visible over the roof line of the protected structure. It has a direct connection with the protected structure and I strongly feel this should be set down below the ridge level therefore not visible. For example, it is visible in View 4.2 view 1 Proposed scheme, from Newbridge Bridge.

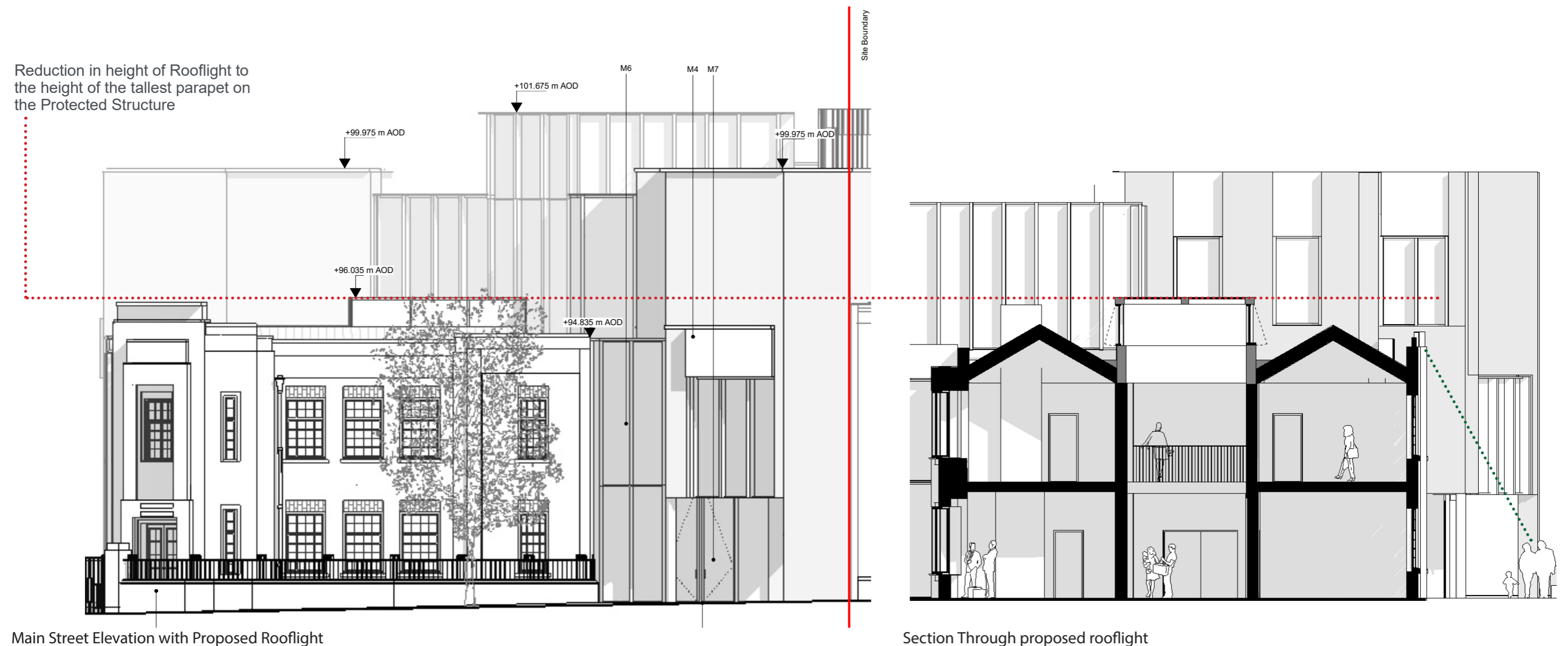
Design Team Response

3 June 2022

The rooflight has been reduced in height as far as possible whilst maintaining adequate space for opening vents that provide natural ventilation. The proposed rooflight aligns with the tallest parapet on the Protected Structure as per the elevation below.

Conservation Officer's Comment 28th June 2022

The reduced height for the rooflight to the new atrium lessen the impact of the intervention on the protected structure. This is an improvement to the scheme and is acceptable.



4.14 Thermal Upgrade Works - Initial Design Team correspondence

Conservation Officer's Comment

Thermal upgrade works which impact on the character of the building to be removed from proposal.

Proposed upgrade works include: removal of existing ground floor suspended timber floor and concrete floors for new insulated concrete slab would require removal of existing floor finishes (including decorative tiles) and internal joinery. Proposed works should be reconsidered and /or removed from scheme.

Design Team Response

The design team will ensure that any thermal upgrades to floors will not effect the existing ground floor timber floor finishes and internal joinery. The Design Team notes that the decorative tiling (marked in plan) is not from the Art Deco era, however the Design team will reconsider insulating this area.

Conservation Officer's Comment

New internal insulation, which the methodology has been thoroughly investigated would affect doors and architraves in some locations, skirtings, pictures rails and cornicing. The addition of internal insulation would affect the symmetry in the existing pattern floor tiles. This should be removed from scheme.

Design Team Response

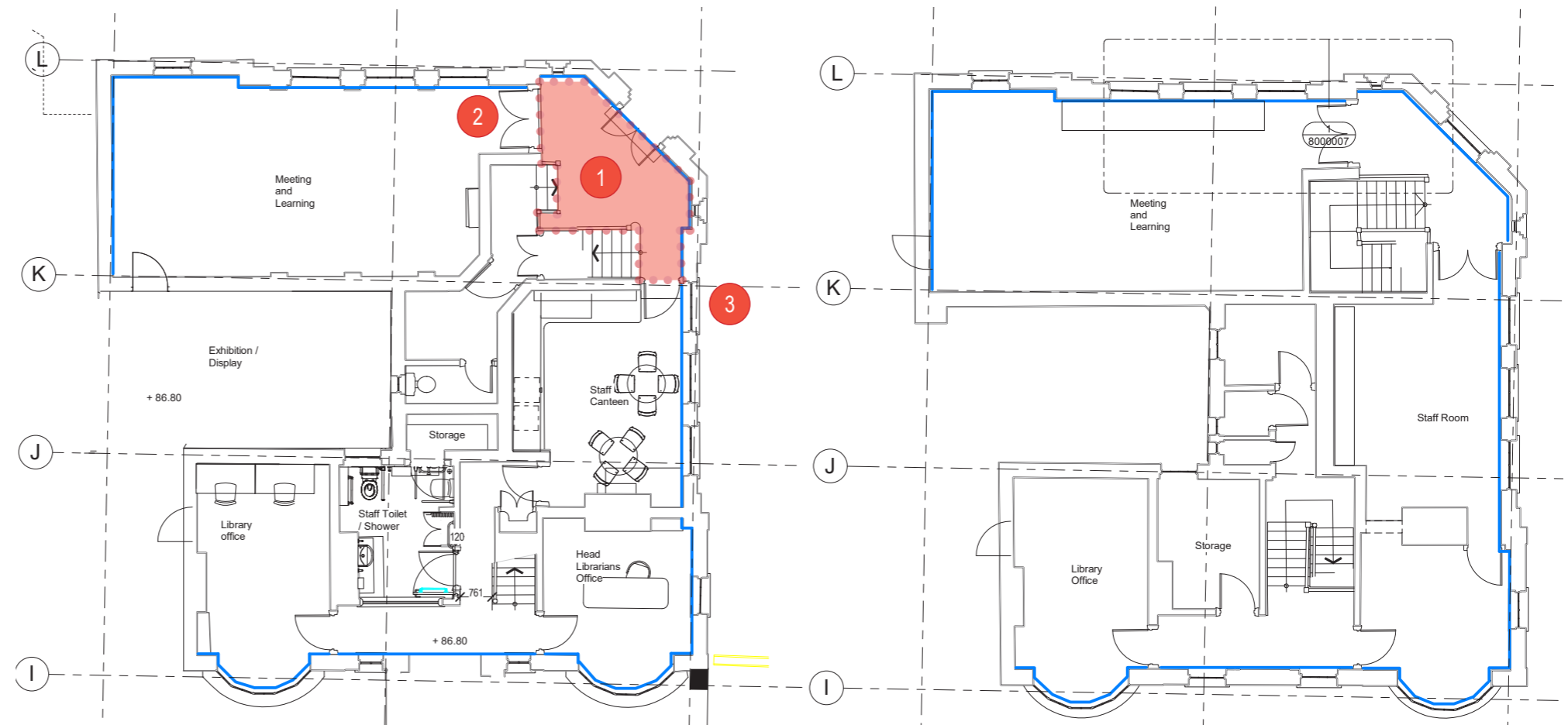
The design team propose to use thinner insulation in locations where doors and architraves would be effected. The objective is to retain the existing doors and architraves as far as practical having regard for Fire and DAC considerations. Any thermal improvements with be tested and carefully considered by the design team.

Conservation Officer's Comment

Reglazing of existing windows to include double glazing would include removal of original glazing. Secondary glazing should be considered.

Design Team Response

The design team has looked at the option for the inclusion of secondary glazing. This option has been ruled out due to clashes with existing door swings and proposed desk locations. The design team propose to include the approach advocated by lambstongue in their report on the existing windows as included in the Draft Part 8 pack of information



- 1 Design Team to reconsider insulating the concrete slab below Decorative Tiling
- 2 The Blue line denotes the extent of internal insulation proposed. Thinner insulation is proposed in areas adjacent to architraves and doors.
- 3 The inclusion of Secondary Glazing has been ruled out due to clashes with existing door swings and proposed desk locations

4.15 Thermal Upgrade Works - Further Design Team response

Conservation Officers Comment

Conservation Officer's comments received 28.06.22

• Areas of thermal upgrade described in the pre-part 8 documentation are required to be included in the Part 8 as these works are not exempt development in a protected structure. 1:50 drawings of the protected structure area required to indicate areas of thermal upgrade and proposed intervention, such as rooflight over atrium, to be included as part of the Part 8 documentation. The drawings should clearly indicate existing building fabric to be retained / removed and any proposed works to the protected structure.

Design Team Response

The Design Team have carefully considered in further detail the thermal upgrade works and have provided further details of proposed works to the protected structure. We considered three thermal improvement options for the existing reinforced concrete walls.

The design team initially considered 3 types of internal insulation, all three involve lining the inner face of the walls.

The three alternative strategies:
-Breathable insulating calcium silicate board
-Breathable insulating Plaster
- Drylining with mineral wool insulation

Building Fabric

As part of the works to the protected structure it is proposed that the external envelope of the building will be upgraded in order to improve the thermal performance.

Any proposed thermal improvement works to the existing fabric will be carefully considered with particular regard to potential thermal bridging and moisture control (condensation) implications.

Breathable Insulating Plaster

Having examined the options, a Breathable Insulating Plaster has been recommended by JCA Conservation Architects as the best option to be used where existing plasters have decayed, offering the optimum balance between energy efficiency and minimising impact on the historic character of the building interior.

This is a breathable lime-based insulating plaster made from cork, clay and diatomaceous earth. It allows vapour to pass through and actively transports moisture from the structure of the building helping the wall and building dry out. It regulates humidity and prevents condensation and mould growth. These properties make it ideal for historic fabric.

The insulating plaster can be applied by hand or by spray pump machine, which is quicker and uses approximately 10-15% less material because the plaster is not being compacted by a trowel. The material is particularly suited for use on uneven or curved walls. This is particularly suited to areas where we may have internal doors meeting the external wall.

The proposed spec is 20mm Diasen Diathonite Deumix PLUS combined with 30mm Diasen Diathonite Evolution for all other areas (U value 0.62W/2K)

Where walls meet internal doors a 20mm Diasen Diathonite Deumix PLUS for the areas where thinner depths of thermal plaster are to be applied to accommodate internal doors (U value 1.27W/m2K)

The material is finished with a layer of breathable lime-based finishing plaster (Argacem HP) followed by a breathable paint such as Auro Natural paint to the inside.

We have undertaken WUFI analysis of the two scenarios. In both cases the walls present a high level of safety against interstitial condensation and moisture risk as moisture and humidity levels within the wall and thermal insulation remain well within safety levels thanks to the capillary and overall compatibility between the lime thermal plaster, finishes and the wall.





The benefit of including a layer of DEUMIX Plus is that it helps accelerate the dehumidification of a wall which historically suffered damp and helps reduce the risk of salt permeating to the interior. Noting that any existing penetrating damp issues will be resolved first.

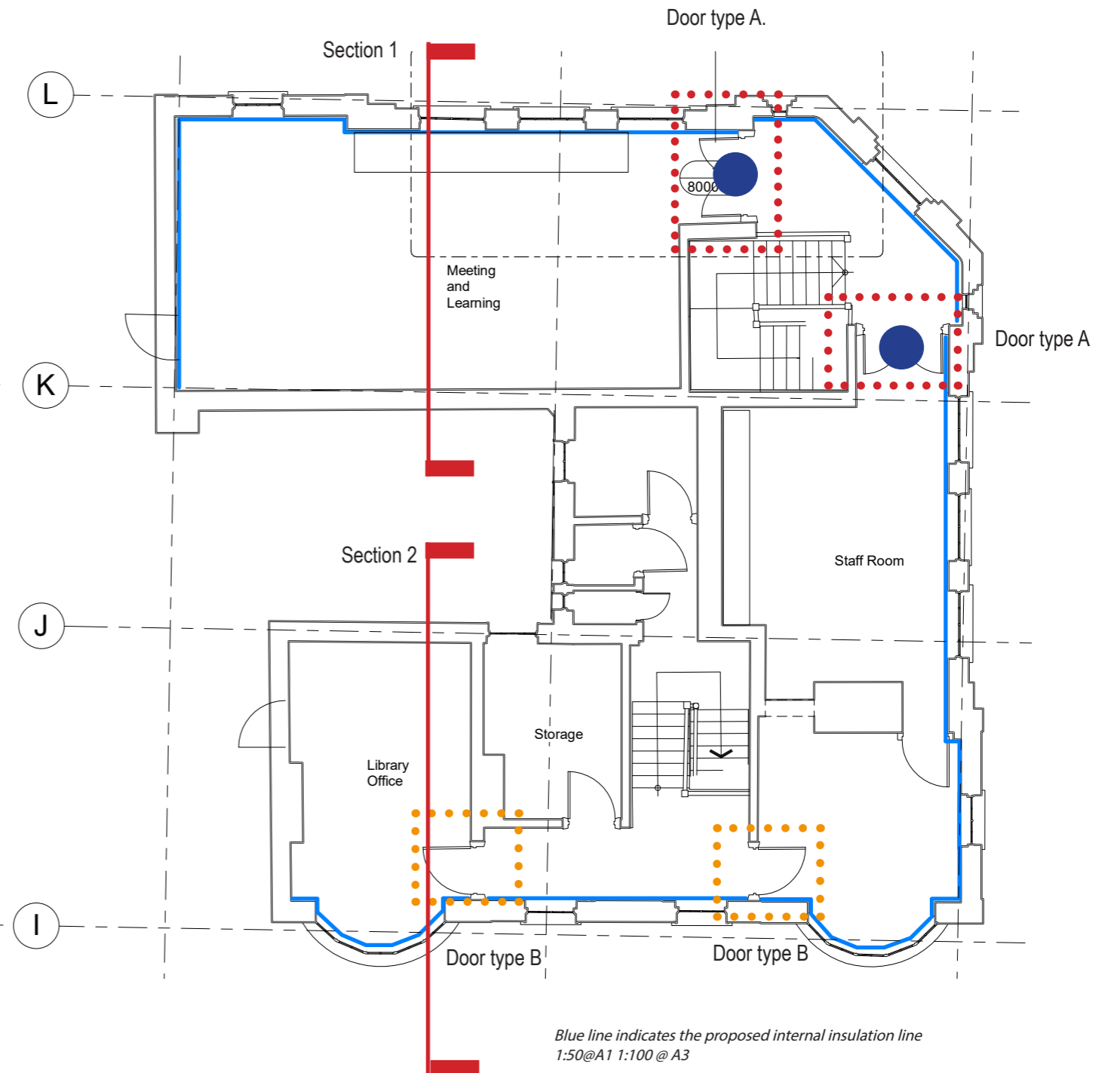
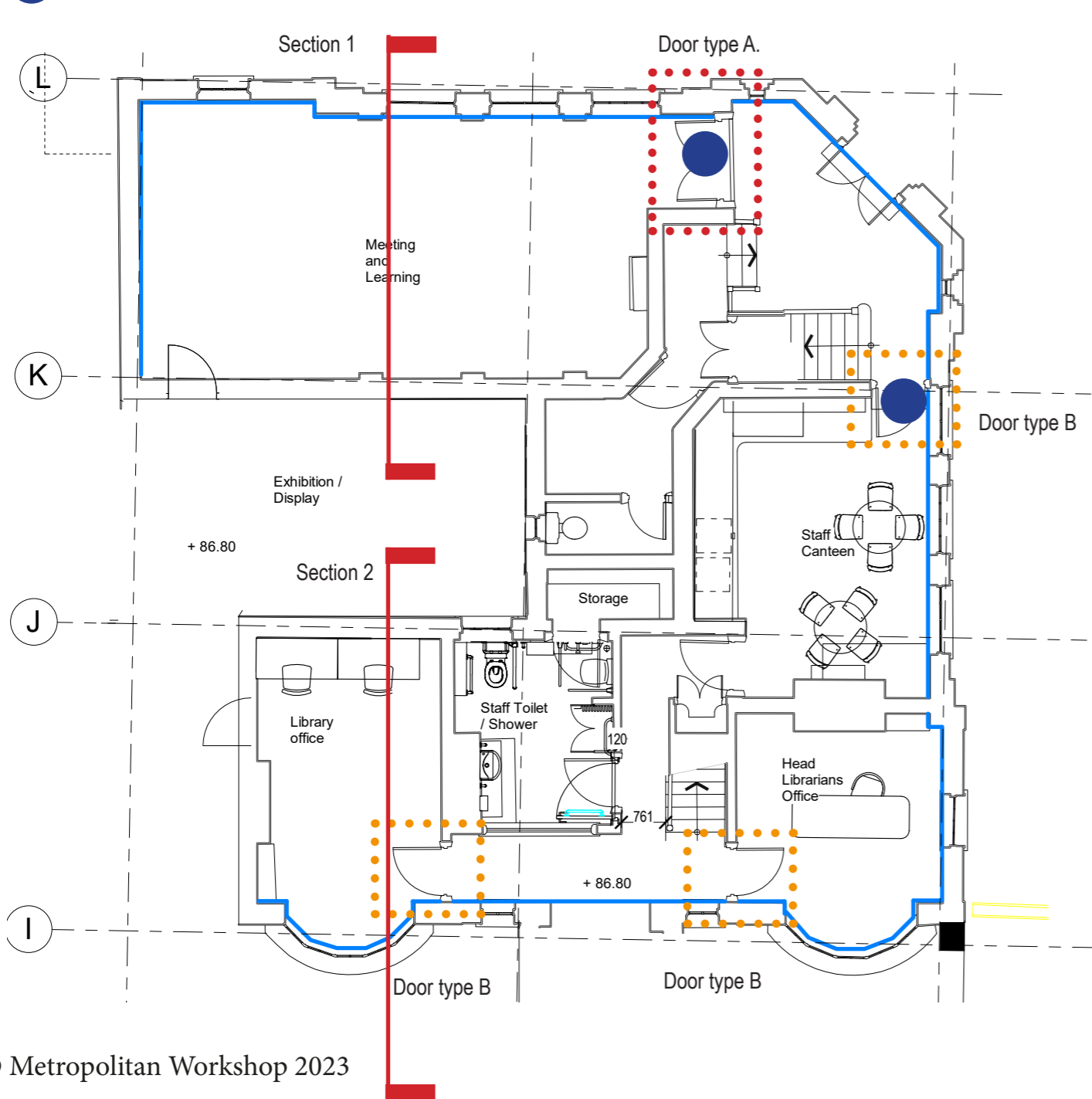


Application of Diathonite

4.15 Thermal Upgrade Works - Further Design Team response

MARKUP OF INTERNAL INSULATION LINE AND DOORS THAT NEED TO BE ALTERED

-  Blue line denotes the location of the proposed internal insulation
-  Door type A. Thermal upgrade works to walls will require adjustment to the door opening position.
-  Door type B Thermal upgrade works to walls will require adjustment to the door opening position.
-  Existing door to be upgraded to a FD30s: 30 minute fire resisting door set when tested to BS 476: Part 22. Or E30s when tested to I.S. EN 13501-2:2013. 'S' Denotes smoke seals with a leakage rate of <math><3\text{m}^3/\text{hour}</math> at 25Pa.



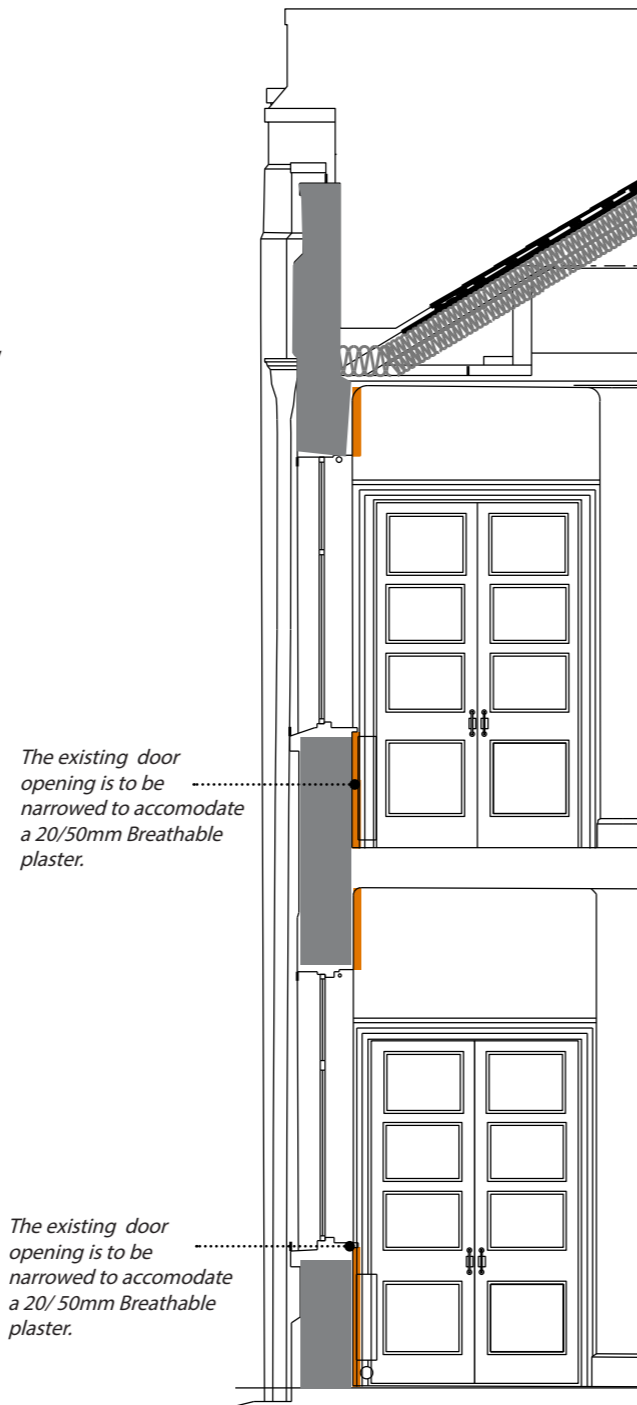
Adjustments to Internal Door Type A

To facilitate the Thermal Upgrade works, the existing double door openings (Type A) are to be narrowed to accommodate a 20/ 50mm Breathable insulating plaster. Existing doors to be cut and timber used to enlarge the width of one door leaf to facilitate wheelchair access. Existing architrave to be cut, moved and adjusted to the new structural opening size.

All door Type A Existing doors are to be upgraded to a FD30s: 30 minute fire resisting door set when tested to BS 476: Part 22. Or E30s when tested to I.S. EN 13501-2:2013. 'S' Denotes smoke seals with a leakage rate of <math>< 3\text{m}^3/\text{hour}</math> at 25Pa.

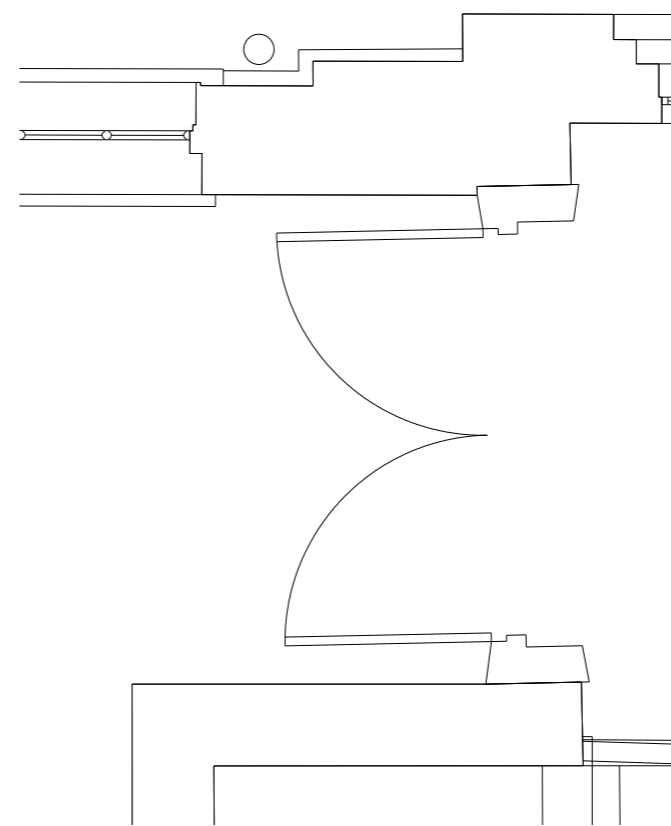


Door at 1F level between Teaching learning room and stair



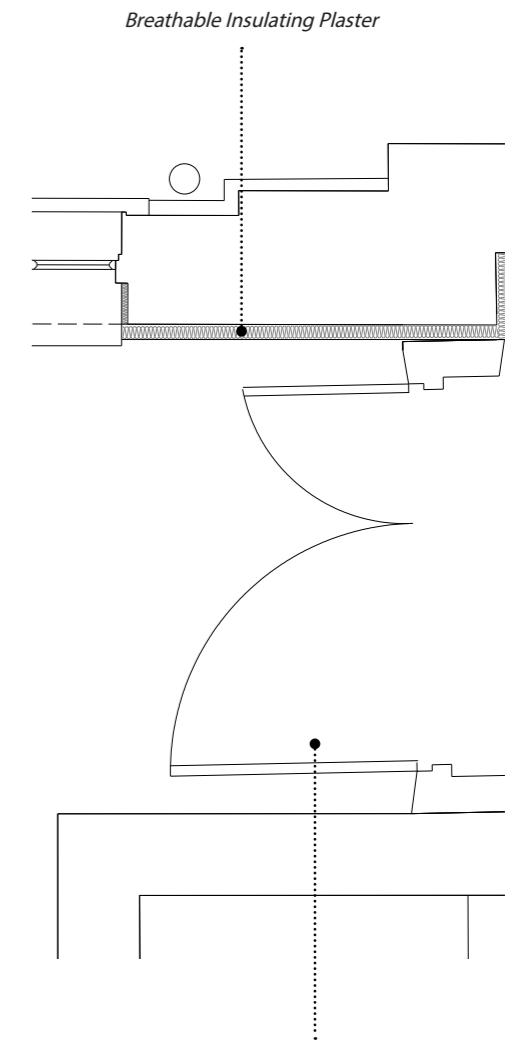
Section 1: Existing section/ elevation Door Type A
Scale: 1:50

Existing Door Jamb Detail



Existing door position

Proposed Door and thermal upgrade



The existing door opening is to be narrowed to accommodate a 20/50mm Breathable plaster. Existing doors to be cut and timber used to enlarge the width of one door leaf to facilitate wheelchair access. Existing architrave to be cut, moved and adjusted to the new structural opening size.

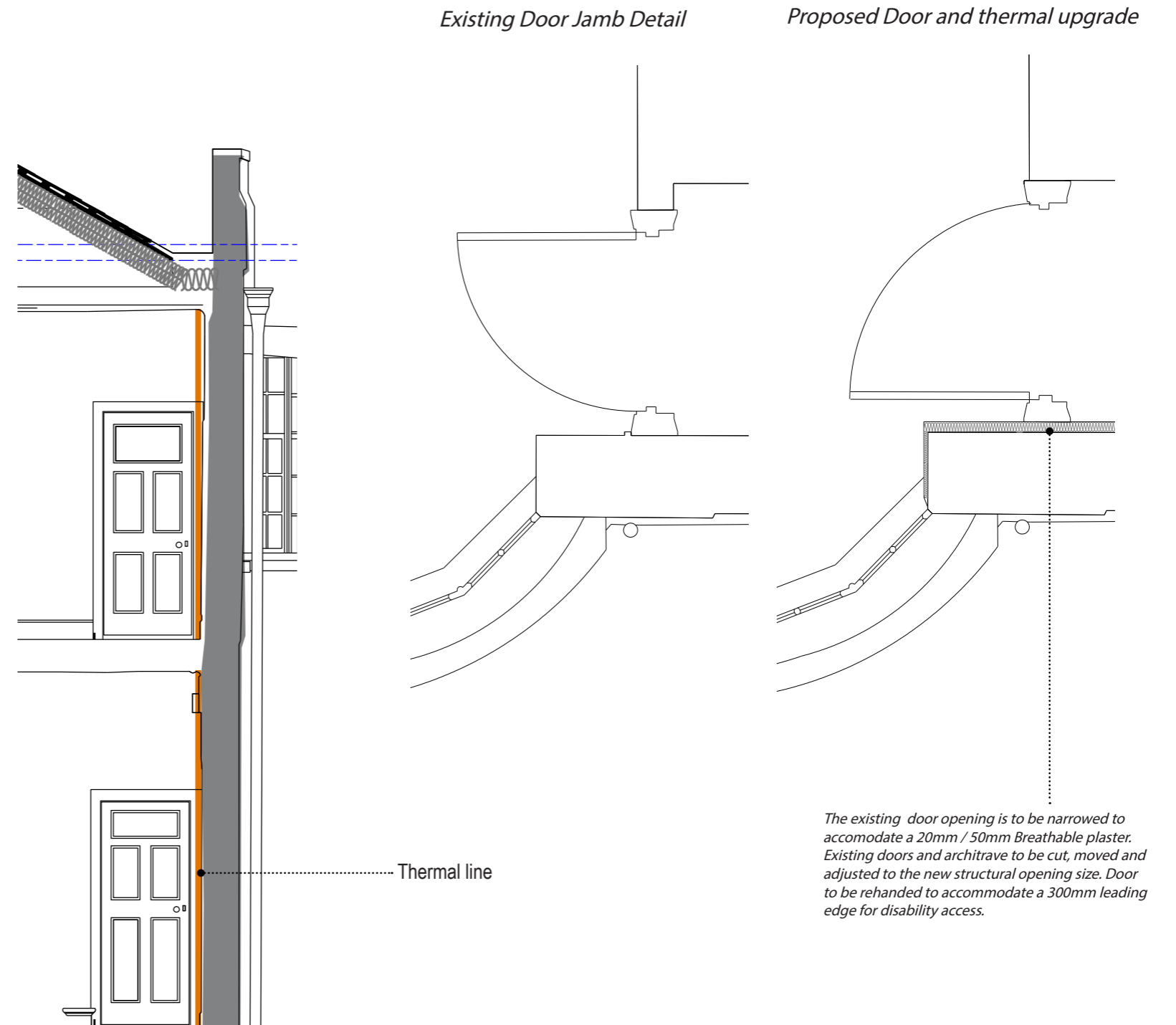
4.15 Thermal Upgrade Works - Further Design Team response

Adjustments to Internal Door Type B

To facilitate the Thermal Upgrade works, some of the existing single door openings (Type B) are to be narrowed to accommodate a 20/50mm Breathable insulating plaster. Existing doors and architrave to be cut, moved and adjusted to the new structural opening size.

Some doors to be rehanded to accommodate a 300mm leading edge for disability access.

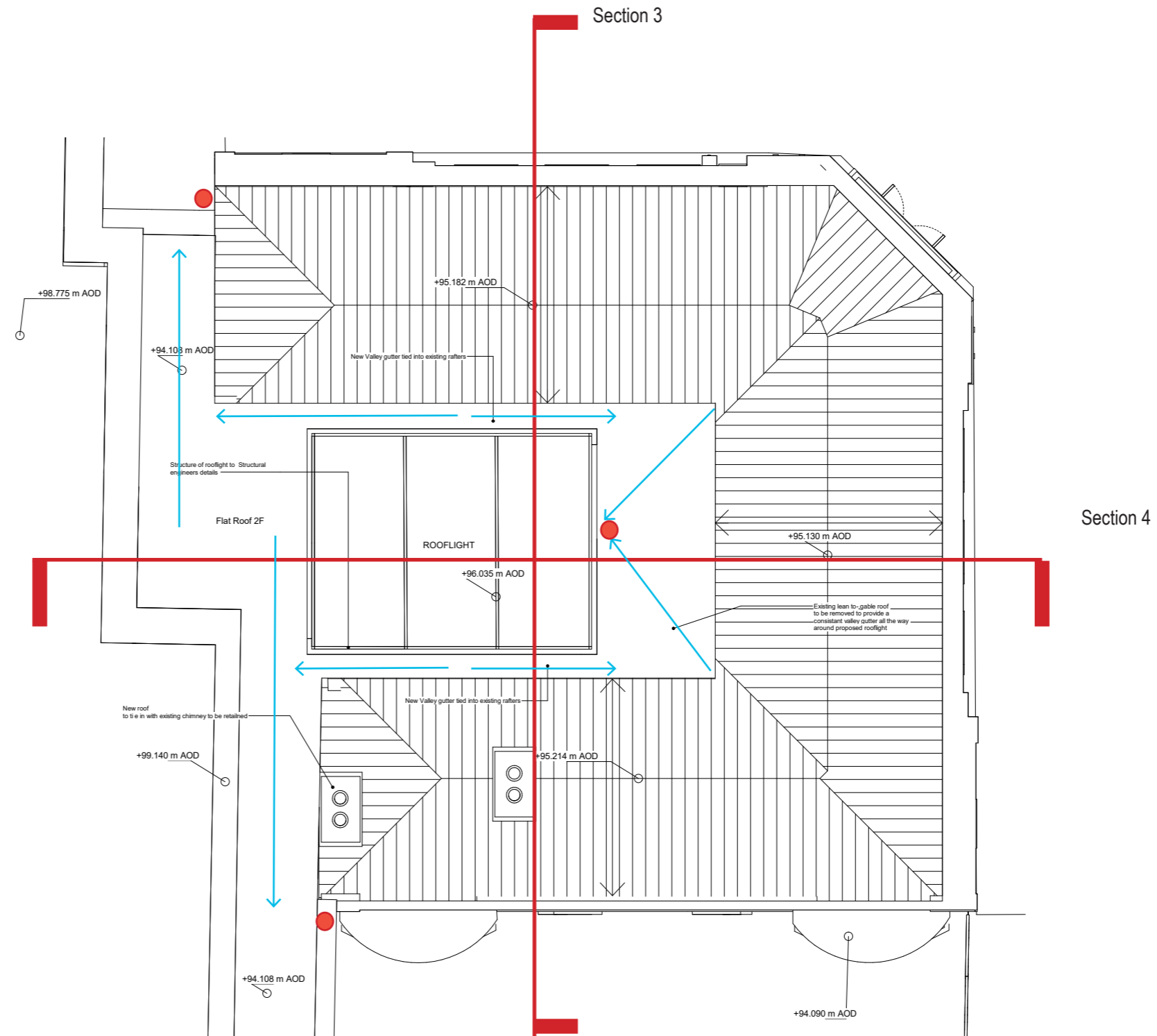
Some Door Type B Existing doors are to be upgraded to a FD30s: 30 minute fire resisting door set when tested to BS 476: Part 22. Or E30s when tested to I.S. EN 13501-2:2013. 'S' Denotes smoke seals with a leakage rate of <math>< 3\text{m}^3/\text{hour}</math> at 25Pa.



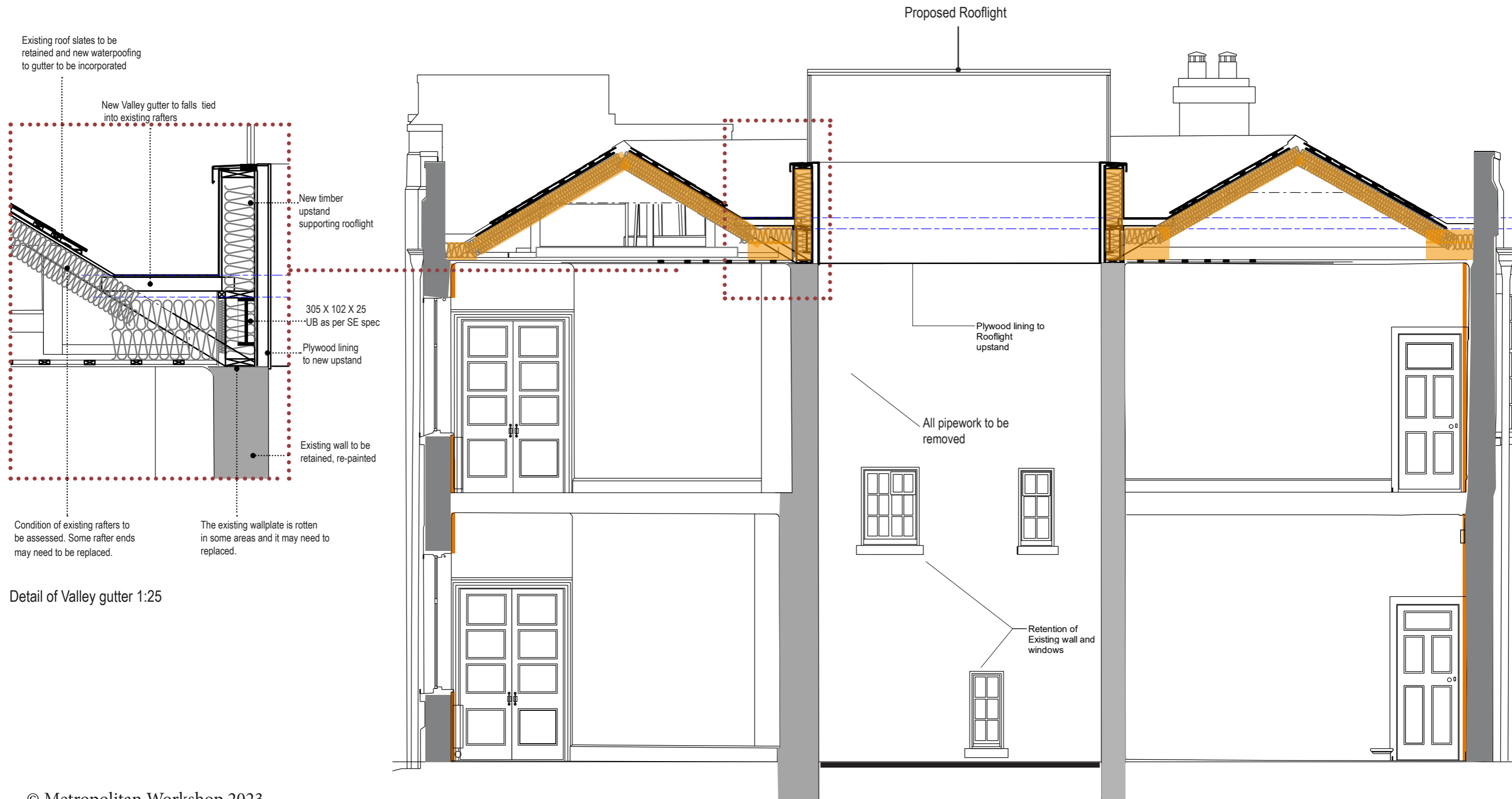
Section 2: Existing section/elevation through Door type B doors

Rooflight Details

The following drawings are indicative of the approach to the rooflight structure.



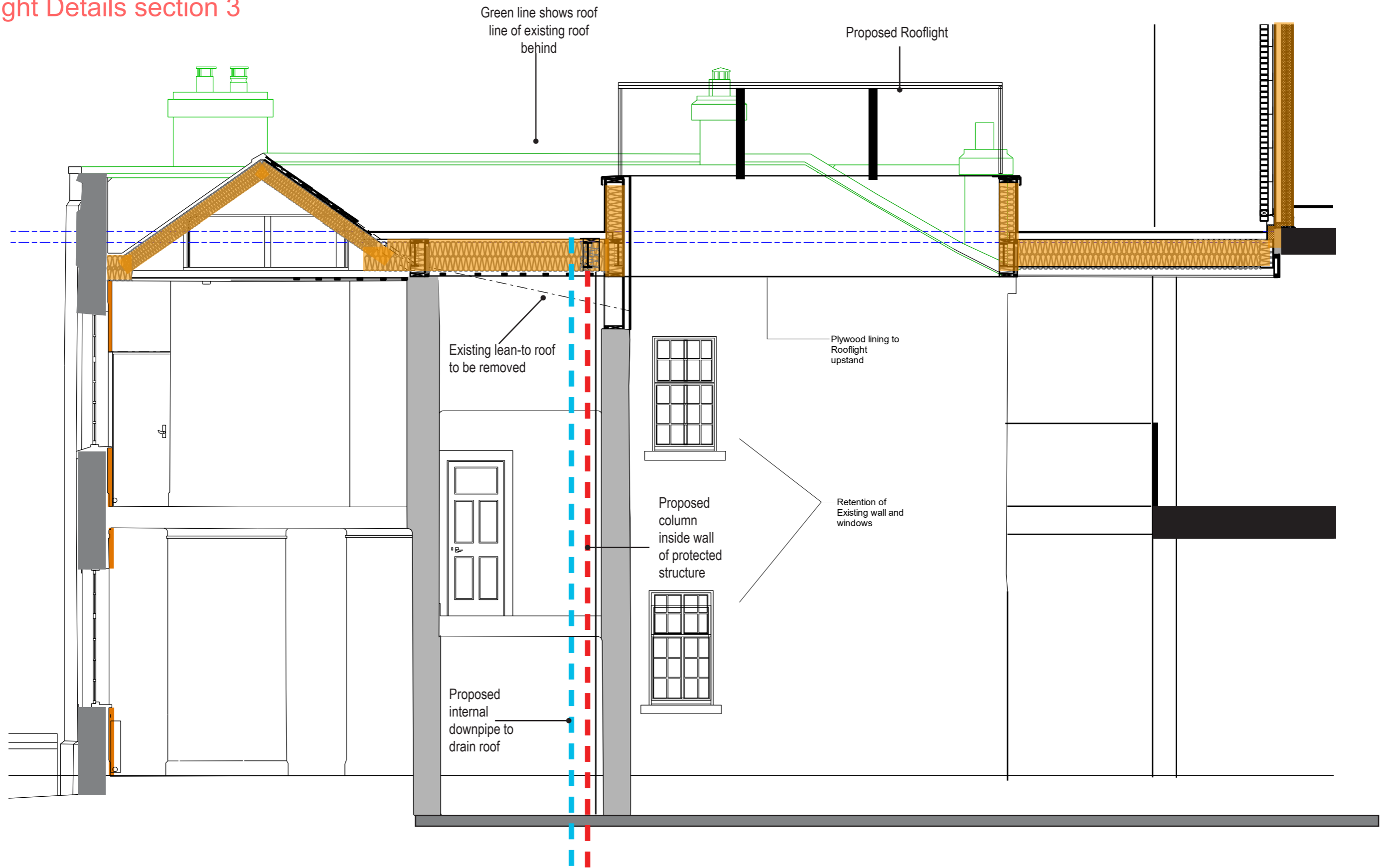
Rooflight Details: Section 3



Detail of Valley gutter 1:25

4.15 Thermal Upgrade Works - Further Design Team response

Rooflight Details section 3



4.16 Thermal Upgrade Works - Windows

Windows

A window condition report by Lambstongue forms part of this application. This report investigates the condition of the windows and the conservation approaches that might be considered.

The 4no. uPVC windows to the south east are to be replaced with steel framed / thermally-broken steel framed windows to match the original units elsewhere on the structure.

The approach to the remaining 25 windows on the outward facing elevations will be to conserve and repair.

The use of thin profiled double glazing replacement panels will be considered to enhance thermal performance.



Above; Three of the 4 uPVC window units to be replaced can be seen, The fourth is obscured by the 1970's building

Existing windows shown on the right



4.16 Thermal Upgrade Works - Windows

Windows

* Meeting Room @ north of existing Bldg. - Area A
 - Relative window opening areas.

Area of Room: 43 m²
 Depth 4.65m.

1st Floor Meeting Room
 Ground Floor Meeting Room

FRONT ELEVATION

STRUCTURAL OPE 1170 500
 STRUCTURAL OPE 870 360

STRUCTURAL OPE 1950
 500
 1200

OPERABLE WITH WINDOW POLE HOOK.

APPROX. 18° APPROX
 APPROX. 975 - 1075

Large window:
 $0.25 \text{ m}^2 + 0.6 \text{ m}^2 = 0.85 \text{ m}^2$

Small window:
 $0.18 \text{ m}^2 + 0.43 \text{ m}^2 = 0.61 \text{ m}^2$

Metropolitan Workshop
 2104 Kildare County Library
 Protected Structure - Window Opening Areas

Note: All areas are approximate. Survey data TBC

Room No.	Floor	Room Name	Area - m ² (Approx.)	1/20th of Area	Window Ope. Area - m ²	Estimated Occupancy
1	Ground Floor	Large Meeting Room	43	2.15	$3(0.85) + 1(0.61) = 3.16$	24
2	Ground Floor	Stairwell	15	-	-	
3	Ground Floor	Staff Meeting Room incl. Staff Lockers	22	1.1	$3(0.85) = 2.55$	
4	Ground Floor	Head Librarian's Office	13	0.65	$1(0.61) + \text{Bay Window} =$	
5	Ground Floor	Entrance Hall / Stairwell	13	-	-	
6	Ground Floor	Librarian's Office	16	0.8	Bay Window =	
7	1st Floor	Large Meeting Room	43	2.15	$3(0.85) + 1(0.61) = 3.16$	16
8	1st Floor	Landing / Stairwell	15	-	$1(0.97) = 0.97$	
9	1st Floor	Staff Facilities - Kitchen	22	1.1	$3(0.85) = 2.55$	
10	1st Floor	Staff Facilities - Lounge	13	0.65	$1(0.61) + \text{Bay Window} =$	
11	1st Floor	Landing / Stairwell	13	-	-	
12	1st Floor	Print Room / Store	7	-	-	
13	1st Floor	Librarian's Office	16	0.8	Bay Window =	

Opening areas of the typical windows to the main office spaces

4.16 Thermal Upgrade Works - Servicing Strategy

Heating & Ventilation Strategy

- Reference is made to:
 - Aecom Heating options memo &
 - Aecom mechanical strategy information.

The protected structure will be primarily ventilated by means of single sided natural ventilation.

The preferred heating of the Protected structure is
-Direct electric heating can be offset by the provision of a PV array above the new library.

Servicing Strategy

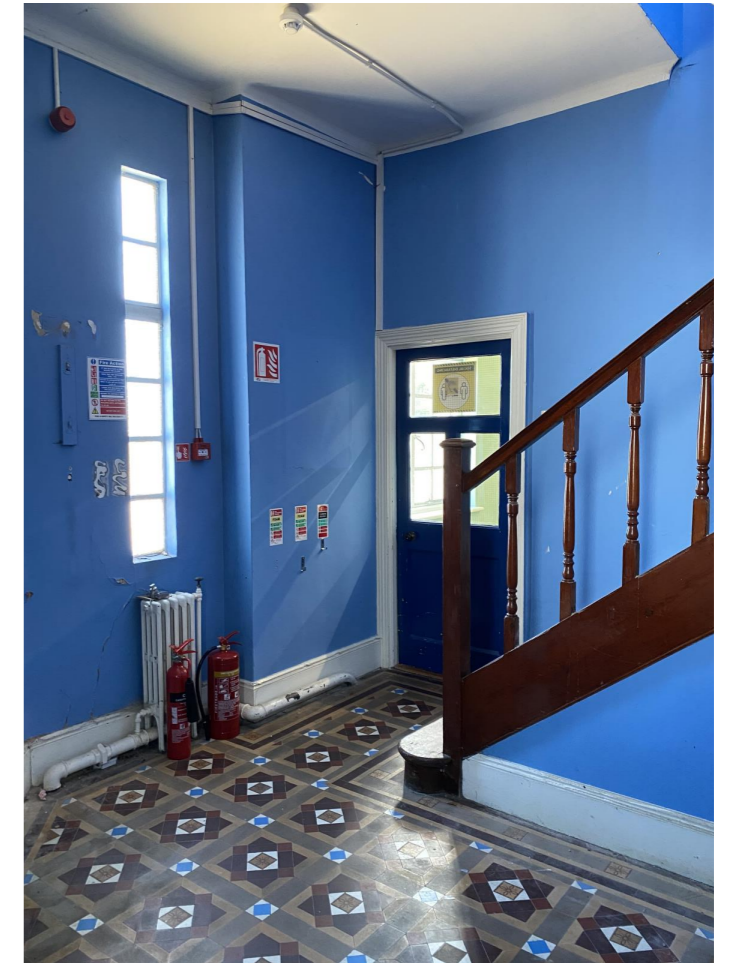
Removal of the existing heating system pipework and radiators.

Rationalisation of all internal electrical services

Opportunity to provide primary power and data services via floorboxes set within the timber floors, thus keeping services off the walls.



Existing heating system pipework to be removed



Existing heating system pipework to be removed,
Wall mounted services to be rationalised and conduiting to be concealed within the new wall linings

4.17 Protected Structure Works



Potential for primary power and data servicing via floorboxes



Removal and replacement of existing furniture



Existing radiators and associated pipework to be removed



Existing radiators to be removed



4.17 Protected Structure Works



*Upgrade works to windows,
Thermal improvement / lining to walls,
incl. replacement of window board, skirting board,
New window blinds*



*Existing uPVC windows to be replaced and bay window to be rebuilt up
to parapet level as advised in the Timber and Damp Building Investigation
Report that forms part of this application.
New blinds,
Thermal upgrade works to external walls - Note existing coving*

4.17 Protected Structure Works



Existing opening to protected structure to be made good where 1970's building will be demolished.



Damp issues to be investigated and resolved prior to thermal upgrade works, Refer to Timber and Damp Building Investigation Report



Metropolitan Workshop

Architecture + Urbanism

Dublin
Tower 2, Fumbally Court
Fumbally Lane
Dublin D08 N2N8
Ireland

+353 (0)1 531 4889
info@metwork.ie

London
14-16 Cowcross Street
London EC1M 6DG
United Kingdom

+44 (0)20 7566 0450
info@metwork.co.uk