SISTERS OF MERCY CONVENT, BALLINA, CO. MAYO

# ARCHITECTURAL HERITAGE IMPACT ASSESSMENT and CONSERVATION REPORT

**REVISION A -** ADDENDUM ADDED - JULY 2024


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SEARCH & RESCUE
RIVER MOY
BALLINA

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Comhairle Contae Mhaigh Eo
Mayo County Council
NDP
National Development Plan 2007 - 2013
Oirthuaisceart Mhaigh Eo
Mayo North East
LCDC
Department of Rural and Community Development
An Roinn Forbartha Tuaithe agus Pobail
Rialtas na hÉireann
Government of Ireland
Tionscadal Éireann
Project Ireland 2040
Funded by the Department of Rural & Community Development
Ár dTodhchaí Tuaithe
Our Rural Future
LEADER
An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine
The European Agricultural Fund for Rural Development:
Europe investing in rural areas

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## 1. Introduction

Vincent Coleman of Coleman Architects was retained in December 2023 by River Moy Search and Rescue Ballina, to provide Architectural Heritage Assessment Report and Conservation Report services at Sisters of Mercy Convent / Convent of the Immaculate Conception. It is intended to carry out urgent repairs, first-phase re-use of parts of the ground floor and long-term use of the whole convent building, gatehouse and site.

The convent is situated off Convent Hill and McDermott St. in a large educational campus, surrounded by residential areas. The relevant site comprises approximately 2.5 hectares and includes the convent building, the gatehouse, some modern detached school buildings, the graveyard and landscaped areas.

The purpose of the report is to provide the historical context of the relevant building and grounds, statutory context, descriptions, conditions, proposals, impacts of the proposals, and mitigation measures; methodologies for conservation-based repairs for urgent, first phase and long-term proposals; drawings of existing survey and proposed works; photographic survey; examples of similar works; cost estimates for proposed works.

The proposed layouts shown on the attached plans are working models in accordance with the preliminary brief and will be subject to change. Methodologies are proposed to provide information about the conservation processes required and to aid in compiling the pricing document below.

## 2. Executive summary

The convent is a protected structure and occupies a prominent elevated site overlooking Ballina town. The main convent building was constructed over three phases and was in use from 1867 to 2008. The first and second phases were built in the neo-gothic style, the third phase being a modern addition. The building is a protected structure with architectural, artistic, technical, historical, and social significance and retains much of its historical fabric.

The original convent buildings are of excellent design and workmanship. The second phase building of the 1880s appears to complete an original intended design and contains a large chapel space, large communal rooms, and cellular bedrooms. The building access, site size, plan arrangement and various room sizes all provide significant potential for reuse with a wide mixture of uses. The site is located close to the town centre.

Ongoing and rapid deterioration to the fabric is occurring mainly due to the non-use and lack of maintenance of the building since its closure resulting in areas of moderate to severe water ingress from blocked gutters and the reduction of ventilation and sunlight due to the covering up of all windows and doors to combat vandalism. Repairs are urgently required.

It is proposed that the building is re-used for various community-based functions and that the initial re-use commences in a relatively short period of time. The first phase proposals includes significant repair works at the chapel porch, illumination works and repair and refurbishment works to allow use of the chapel to main hall, kitchen and toilets. Long-term proposals are for full repairs, restoration and re-use of the overall convent building, gatehouse and grounds.

The protected status of the building means that all proposals and works must be carried out to conservation principles and all relevant statutory requirements.

**3. Methodology of Research**

Research into the history and condition of the building and site was carried out in Ballina Library; Mayo Central Library; information obtained from St. Marys Secondary School; National Inventory of Architectural Heritage (NIAH) records and publications; Ordnance Survey Map records; on-line books; various internet sites; local knowledge; *Heritage Buildings, Increased Rainfall and Climate Change Adaption* (report by Martin Henihan, UCD 2023); Jeremy Williams: Architecture in Ireland 1837-1921 (book); Various case studies of similar structures and proposed developments; Various scientific reports and publications; Various site visits.

**4. Methodology of Building Survey**

The surveys for the purposes of creating drawings and photographic records and of assessing the buildings and site areas and the condition of the elements were carried out on separate site visits in December 2023 and January, February and March 2024.

The convent building and site areas were inspected and surveyed in detail using a 3-D photographic survey programme, manual photography, a photographic survey programme and computer aided design (CAD) to record the plans and historical fabric details. See photographic surveys and CAD drawings at:

APPENDIX A. - Plan Drawings of Existing and Proposed; 3d Drawing Survey

APPENDIX B. - Plan Drawings Proposals

APPENDIX C. - Photographic Survey, with Plan Reference Drawings

APPENDIX D. - Cost Estimates

Opening up of fabric was not possible to most areas and the following areas including:

- Exterior of the roofs.
- Some external windows and doors which have been temporarily covered on each side;
- Under the ground floors to assess depth and condition of subfloor areas;
- Covered service areas including dry-lined and ducted areas throughout the building;
- Roof inspection from within most of the roof space was not possible and no assessment of roof timbers undertaken;
- Services were not tested;
- Asbestos survey has not been carried out.

**5. Statutory Designations**

<u>Record of Protected Structures</u>

The convent is a Protected Structure - Mayo County Council - No 10, described:

*Sisters of Mercy Convent and School Detached 11 bay, 2-storey neo gothic style convent, circa 1867. Incorporating cloister and chapel and with some fine interior detail. Said to be by George Goldie. Adjacent stone school building, circa 1885. Many later modifications and additions to convent and school, circa 20th century.*

<u>National Inventory of Architectural Heritage (NIAH)</u>

NIAH Survey Data

- Reg. No: 31204001
- Rating: Regional
- Categories of Special Interest: Architectural, Artistic, Historical, Social, Technical
- Previous Name: All Hallows Convent (Secondary School)
- Original Use: Convent/nunnery
- In Use As: Unused
- Date: 1860 - 1890

- Coordinates: 123997, 319230
- Date of Survey: 2008

NIAH Description

*Detached eleven-bay two-storey convent with attic, completed 1889, on a H-shaped plan with two-bay (six-bay deep) two-storey gabled projecting end bays centred on single-bay full-height buttressed gabled breakfront. Closed, 2009. Pitched slate roofs on a H-shaped plan centred on pitched (gabled) slate roof with clay ridge tiles, tuck pointed snecked limestone chimney stacks on chamfered cushion courses on tuck pointed snecked limestone bases having stringcourses below lichen-covered chamfered capping supporting terracotta pots, cut-limestone "slated" coping to gables on drag edged tooled cut-limestone corbel kneelers with Cross finials to apexes, and cast-iron rainwater goods on cut-limestone eaves retaining Maltese Cross-embossed cast-iron hoppers and square profile downpipes. Tuck pointed snecked limestone walls on drag edged tooled cut-limestone chamfered cushion course on plinth with drag edged tooled hammered limestone flush quoins to corners. Pointed-arch central door opening approached by two tooled cut-limestone steps, drag edged tooled cut-limestone block-and-start surround having chamfered reveals with hood moulding over on monolithic label stops framing glazed timber panelled double doors having stained glass overlight. Pointed-arch window opening (first floor), drag edged tooled cut-limestone block-and-start surround having chamfered reveals with hood moulding over on monolithic label stops framing storm glazing over fixed-pane fittings having stained glass margins centred on leaded stained-glass panels. Cusped window openings in bipartite arrangement (ground floor) with dragged cut-limestone engaged octagonal mullions, and drag edged tooled cut-limestone block-and-start surrounds having chamfered reveals framing one-over-one timber sash windows. Shouldered square-headed window openings (first floor) with drag edged tooled cut-limestone block-and-start surrounds having chamfered reveals framing two-over-two timber sash windows. Interior including (ground floor): central hall retaining carved timber surrounds to door openings framing timber panelled doors; carved timber surrounds to door openings to remainder framing timber panelled doors with carved timber surrounds to window openings framing timber panelled shutters; chapel with exposed timber roof construction on cut-limestone thumbnail beaded corbels, and pointed-arch chancel arch framing carpeted cut-limestone stepped dais to sanctuary (east) with timber panelled altar below stained glass windows. Set in landscaped grounds.*

NIAH Appraisal

*A convent completed to a design by William Henry Byrne (1844-1917) of Suffolk Street, Dublin (IAA), representing an important component of the nineteenth-century built heritage of Ballina with the architectural value of the composition, one begun (1863) to a design by George Goldie (1828-87) of London (Reilly 1993, 241; Williams 1994, 301-2), confirmed by such attributes as the symmetrical or near-symmetrical footprint centred on an expressed breakfront; the construction in a "sparrow pecked" limestone offset by sheer dressings not only demonstrating good quality workmanship, but also compounding a sober monochrome palette; the slight diminishing in scale of the openings on each floor producing a graduated tiered visual effect; and the high pitched gabled roofline. Having been well maintained, the elementary form and massing survive intact together with substantial quantities of the original fabric, both to the exterior and to the interior where contemporary joinery; chimneypieces; sleek plasterwork enrichments; and '[an] inventive [chapel] with rose windows cutting through [an] apsidal semi-dome framed by arches rising from tiny coupled columns' (Williams 1994, 301-2), all highlight the considerable artistic potential of a convent making a pleasing visual statement in McDermott Street.*

Appraisal by Jeremy Williams: *Architecture in Ireland 1837-1921* (1994, p.301-2):
*Gothic Revival Convent of 1863-7 built round three sides of a cloister with chapel confined to the ground floor and externally articulated by polygonal apse perforated with rose windows set onto dormers. Interior of chapel equally inventive, with rose windows cutting through apsidal semi-dome framed by semi-circular stone arches rising from tiny coupled columns. Most probably by George Goldie, who designed the sister convent in Sligo. Additions by W.H. Byrne, 1889.*

**6. Mayo County Council Development Plan 2022-2028 - Relevant sections**
*Architectural Heritage Policies*
*BEP 4 To protect the architectural heritage of County Mayo which is a unique and special resource.*
*BEP 5 To promote best conservation practice and encourage the use of appropriately qualified professional advisors, tradesmen and craftsmen with recognised conservation expertise, for works to protected structures or historic buildings in an Architectural Conservation Area.*
*BEP 6 To encourage the conservation of Protected Structures, and where appropriate, the adaptive re-use of existing buildings and sites in a manner compatible with their character and significance.*
*BEP 7 To protect buildings and structures included in the Record of Protected Structures (RPS) which forms part of this Plan.*

*Architectural Heritage Objectives*
*BEO 9 To ensure the protection and sympathetic enhancement of buildings and structures included and proposed for inclusion in the Record of Protected Structures (RPS) that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, together with the integrity of their character and setting.*
*BEO 10 To protect the setting of protected structures and seek to prevent the demolition or inappropriate alteration of Protected Structures, which would adversely impact on the character and special interest of the structure, where appropriate.*

*Historic Building Stock and Vernacular Architecture Policies*
*BEP 8 To encourage the retention, sympathetic maintenance and sustainable re-use of historic buildings, including vernacular dwellings or farm buildings and the retention of historic streetscape character, fabric, detail and features, where appropriate.*

*Architecture Objectives*
*BEO 17 To preserve the character and setting (for example, gates, gate piers and courtyards) of historic building and vernacular buildings, where deemed appropriate by the planning authority.*

**7. Draft Ballina Local Area Plan 2024-2030**
*2.10 Development Strategy Policies*
*DSO 6: Protect, conserve, and enhance the built environment, through promoting awareness, utilising relevant heritage legislation, and ensuring quality urban design principles are applied to all new developments, respecting historic and architectural heritage.*

*Architectural Heritage and Record of Protected Structures Policies.*
*It is a policy of the Council to:*

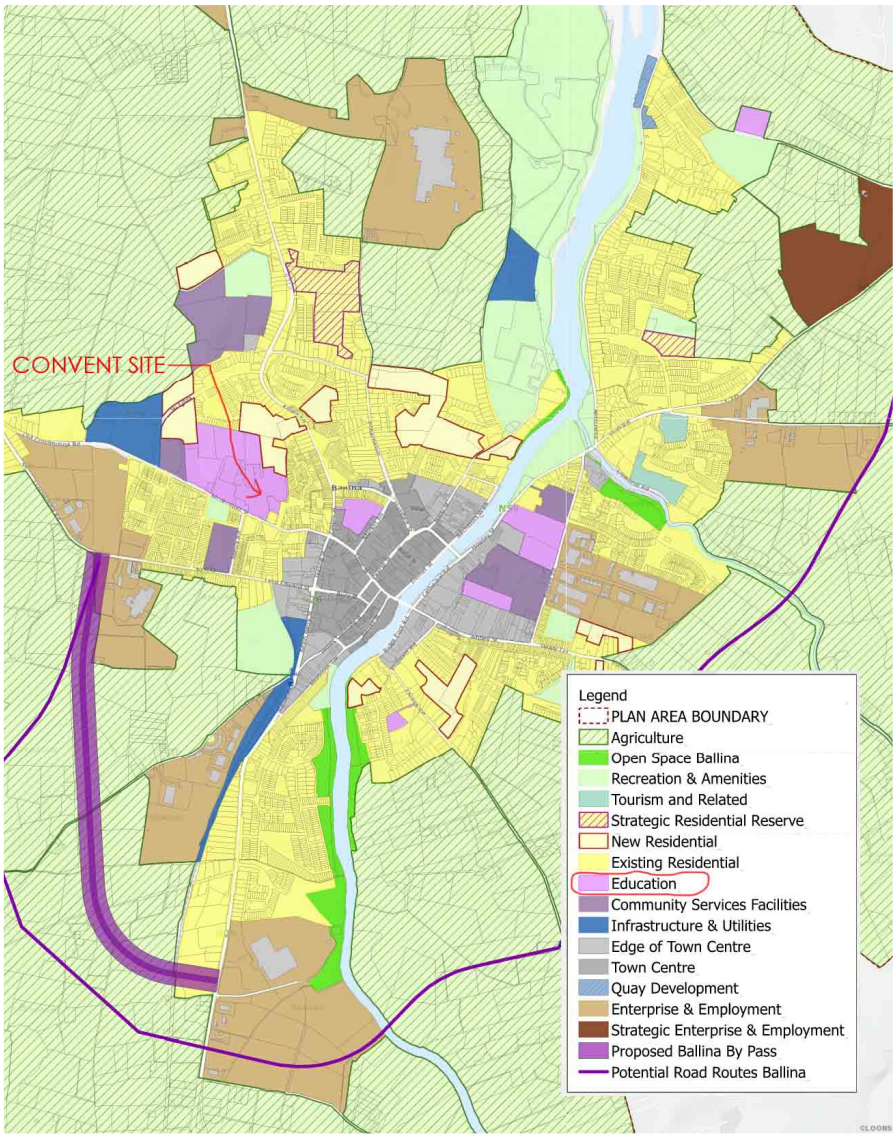
*BEP 7 Encourage the rehabilitation, renovation, climate-proofing and re-use of existing protected structures and vernacular buildings within the plan area, where appropriate, over the demolition of same and new-build on-site. Architectural Heritage and Record of Protected Structures Objectives It is an objective of the Council to:*
*BEO 2 Preserve the protected structures and their settings in Ballina on the Record of Protected Structures and seek to prevent the demolition or inappropriate alteration of Protected Structures, which would adversely impact on the character and special interest of the structure, where appropriate and to review the Record of Protected Structures from time to time as the need arises.*
*BEO 3 Preserve the form and character of the protected structures by ensuring that any proposed sub- division of protected structures for multiple residential units does not impair the character of the protected structure.*
*BEO 4 Ensure that any alterations or interventions to protected structures shall be executed to a high conservation standard in order to protect their significance or value. Any applications for development of protected structures shall be accompanied by an assessment carried out in accordance with the Councils requirements by an accredited conservation architect, in accordance with the Councils requirements.*
*BEO 5 To ensure that any new development or alteration to a building within or adjoining the Pearse Street/Walsh Street Architectural Conservation Area positively enhances the character of the area and is appropriate in terms of the proposed materials, scale, density, layout, proportions, plot ratio and building lines.*

Note: The draft *Local Area Plan* does <u>not</u> include the Convent site as part of its *Chapter 4 Town Centre and Regeneration: 4.7 Character Areas and Opportunity Sites.* This may relate to the site being on the edge of, and partly removed from the town centre, and the designation of the site as *'Education'* under the draft plan.

**8. Development Strategy**

In the Draft Ballina Local Area Plan 2024-2030 the Convent site is proposed to be zoned as *'Education': Land Use Zoning Objectives: LUZ 5 - Educational: To provide for the protection of lands for schools and educational uses.*
Such zoning would not include for the proposed uses. For the purposes of this report community-based and other public uses are proposed for the short and the long terms.
The previous Local Area Plan zoned the site as *Community Services* which includes permission for many of the uses proposed. This report will detail those proposals with the view that the permitted uses will be reviewed and new uses added that are *'Permitted in principle'.*
The site is located 250m from edge of town centre and 350m from town centre zones, and is separated from the town zones by *Existing Residential* zone via Mc Dermott St.
The plan states: *There are a wide range of land uses identified under each of the Land Use Zoning Objectives. Proposals for development will need to demonstrate compliance with the various written provisions of the Plan, as relevant, including those relating to environmental protection and management. Prospective applicants are encouraged to engage with the Planning Authority at the earliest opportunity to seek guidance as to the appropriateness of emerging proposals.*
*<u>The Land Use Zoning Matrix</u> details the most common forms of development land uses in accordance with the county's zoning objectives and classifies under the three below categories as to whether a proposed use is generally:*
*'Permitted in principle'* (denoted **P**).

*'Open for consideration'* (denoted **O**).
*'Not normally permitted'* (denoted **X**).
*Whilst the matrix does not provide an exhaustive list of potential uses, the uses listed in the matrix should be considered by applicants to provide a clear indication of the overall acceptability of a particular land use within a specific zoning category.*
*Where a use is proposed that is not listed in the matrix, development proposals will be assessed on their individual merits in accordance with the general guidance provided by the matrix, and having regard to the nature of existing and proposed uses, to the general policies and zoning objective(s) for the area in the Local Area Plan and to the principles of proper planning and sustainable development. Where there is no perceived conflict between existing and proposed uses, favourable consideration will be given to the proposed development, subject to all other normal requirements and to the principles of the proper planning and sustainable development of the area.*
Discussions with the planning authorities will be required to agree the proposed uses.



*Draft Ballina Local Area Plan – 2024-2030 – MAP 1 – Land Use Zoning Map*

| Land Use Zoning Matrix Table 11.2 | Town Centre Inner | Edge of Town Centre | New Residential | Existing Residential | Strategic Residential Reserve | Educational | Enterprise and Employment | Strategic Enterprise and Employment | Community Services | Recreation and Amenity | Agriculture | Open Space | Infrastructure and Utilities | Quay Development/Marine Related Tourism | Tourism and Related |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Abattoir | X | X | X | X | X | X | X | X | X | X | O | X | X | X | X |
| Advertisement Billboards | O | O | X | X | X | X | O | X | X | X | X | O | O | X | X |
| Agricultural Structures | X | X | X | X | X | X | X | X | X | X | P | X | X | X | X |
| Amusement Arcade | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Apartments | P | P | P | P | P | X | X | X | X | X | X | X | X | X | X |
| B&B/ Guesthouse | O | O | P | P | O | X | X | X | X | X | O | X | X | X | X |
| Bank/ Financial Institution | P | P | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Batching Plant (asphalt/ concrete) | X | X | X | X | X | X | X | X | X | X | O | X | X | X | X |
| Betting Office | O[1] | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Boarding Kennels | X | X | X | X | X | X | O | X | X | X | O | X | X | X | X |
| Caravan Park / Campervan Park / Camp Site/ Glamping (Tourism) | X | X | X | X | X | X | X | X | X | X | O | X | X | P | P |
| Car Parking | O | O | O | O | X | X | O | X | O | X | X | O | O | O | X |
| Cash and Carry Wholesale Outlet | X | X | X | X | X | X | P | X | X | X | X | X | X | X | X |
| Cemetery | X | X | X | X | X | X | X | X | O | X | O | X | X | X | X |
| Chemist/ Pharmacy | P | P | X | X | X | X | X | X | O | X | X | X | X | X | X |
| Childcare Facilities – Crèche, Nursery and Playschool | P | P | P | P | P | P | O | X | P | X | X | X | X | X | X |
| Cinema/ Theatre | P | P | X | X | X | X | O | X | X | X | X | X | X | X | O |
| Community Facility (hall, centre or recreational use) | P | P | O | O | O | X | X | X | P | X | O | X | X | X | O |
| Conference Centre | P | P | X | X | X | X | X | X | X | X | X | X | X | X | O |
| Dance Hall/ Disco/ Night Club | O | O | X | X | X | X | X | X | X | X | X | X | X | X | O |
| Data Centre | X | X | X | X | X | X | O | P | X | X | O | X | X | X | X |
| Dentist/ Doctor Surgery | P | P | X | X | X | X | X | X | O | X | X | X | X | X | X |
| Drive Through Restaurant | X | X | X | X | X | X | O | X | X | X | X | X | X | X | X |
| Education – excluding a night-time use | O | O | O | O | X | P | X | X | O | X | X | X | X | X | X |
| Education – night-time education use | O | O | X | X | X | P | O | X | O | X | X | X | X | X | X |
| Education – third level education use | O | O | X | X | X | P | O | X | O | X | X | X | X | X | X |

| Land Use Zoning Matrix Table 11.2 | Town Centre Inner | Edge of Town Centre | New Residential | Existing Residential | Strategic Residential Reserve | Educational | Enterprise and Employment | Strategic Enterprise and Employment | Community Services | Recreation and Amenity | Agriculture | Open Space | Infrastructure and Utilities | Quay Development/Marine Related Tourism | Tourism and Related |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education – training centre | O | O | X | X | X | O | O | X | P | X | X | X | X | X | X |
| Enterprise Unit/Workshop | P | P | X | X | X | X | P | X | X | X | X | X | X | X | X |
| Extractive Industry | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Funeral Home | O | O | X | X | X | X | O | X | O | X | X | X | X | X | X |
| Fuel Depot | X | X | X | X | X | X | O | X | X | X | O | X | O | X | X |
| Garden Centre | O | O | X | X | X | X | O | X | X | X | O | X | X | X | X |
| Go-Kart Track | X | X | X | X | X | X | O | X | X | X | X | X | X | X | X |
| Hospital | O | O | X | X | X | X | X | X | P | X | X | X | X | X | X |
| Hostel | P | O | X | X | X | X | X | X | X | X | X | X | X | O | O |
| Hotel | P | O | X | X | X | X | X | X | X | X | X | X | X | O | O |
| Industry – Heavy | X | X | X | X | X | X | O | X | X | X | X | X | X | X | X |
| Industry – Light | X | X | X | X | X | X | O | O | X | X | X | X | X | x | X |
| Leisure Centre/ Gym | P | O | X | X | X | X | O | X | O | O | X | X | X | O | X |
| Library | P | P | X | X | X | X | X | X | O | X | X | X | X | X | X |
| Licenced Premises (Public House) | P | P | X | X | X | X | X | X | X | X | X | X | X | x | X |
| Logistic, Storage and Distribution Units | X | X | X | X | X | X | P | X | X | X | X | X | X | O | X |
| Mart/ Co-operative | X | X | X | X | X | X | X | X | X | X | O | X | X | X | X |
| Motor Sales/ Service | O | O | X | X | X | X | P | X | X | X | X | X | X | X | X |
| Nursing Home/Retirement Village/Residential Care | P | P | P | P | P | X | X | X | O | X | X | X | X | X | X |
| Office | P | P | X | X | X | X | $O^2$ | $O^2$ | X | X | X | X | X | X | X |
| Open Space (Public) | P | P | P | P | P | P | P | X | P | P | P | P | X | P | P |
| Park and Stride Facility | X | O | X | O | X | X | O | X | X | X | X | O | X | O | X |
| Place of Worship | P | P | O | O | X | X | X | X | P | X | X | X | X | X | X |
| Plant/ Tool Hire | O | O | X | X | X | X | O | X | X | X | X | X | X | X | X |
| Playground | P | P | P | P | P | P | O | X | P | P | X | O | X | O | O |
| Playing Pitches/ Sports Club | O | O | P | P | P | P | X | X | P | P | P | O | X | P | O |
| Primary Care Centre, Health Centre and Clinics | P | P | X | X | X | X | X | X | P | X | X | X | X | X | X |

| Land Use Zoning Matrix Table 11.2 | Town Centre Inner | Edge of Town Centre | New Residential | Existing Residential | Strategic Residential Reserve | Educational | Enterprise and Employment | Strategic Enterprise and Employment | Community Services | Recreation and Amenity | Agriculture | Open Space | Infrastructure and Utilities | Quay Development/Marine Related Tourism | Tourism and Related |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Professional Services | P | P | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Residential – Multiple (two or more units) | P | P | P | P | P | X | X | X | X | X | X | X | X | X | X |
| Residential – Single | P | P | P | P | P | X | X | X | X | X | O[3] | X | X | X | X |
| Restaurant/ Café | P | P | X | X | X | X | O | O | O | X | X | X | X | p | p |
| Retail Warehousing | O | O | X | X | X | X | P | X | X | X | X | X | X | X | X |
| School / Third Level Education | P | P | O | O | X | P | X | X | O | X | X | X | X | X | X |
| Service Station | O | O | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Shop/Retail (Comparison) | P | O | X | X | X | X | X | X | X | X | X | X | X | O[4] | O[5] |
| Shop/Retail (Convenience) | P | O | O | O | X | X | X | X | X | X | X | X | X | X | X |
| Shopping Centre / Supermarket | P | O | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Take Away | P | O | X | X | X | X | X | X | X | X | X | X | X | O | X |
| Traveller Accommodation | O | O | O | O | O | X | X | X | X | X | X | X | X | X | X |
| Utility Structures | O | O | O | O | O | O | O | O | O | O | O | O | P | O | O |
| Veterinary Surgery | O | O | X | X | X | X | P | X | X | X | O | X | X | X | X |
| Warehousing | X | O | X | X | X | X | P | O | X | X | X | X | X | X | X |

**9. Statement of Significance of the Convent Building.**

The dominant building in a group of structures which includes a gatehouse along with other modern constructions within the curtilage, is on the Record of Protected Structures and thus its significance is recognised by Mayo County Council. The National Inventory of Architectural Heritage (NIAH) lists the building as of *Regional* importance with *Categories of Special Interest* of *Architectural, Artistic, Historical, Social,* and *Technical*.

The building is a quadrangle arrangement made up of three separate phases of construction. The first phase attributed to George Goldie including the chapel, the second phase by William Henry Byrne, both known and distinguished architects of their era.
The third phase is a late 20th c. modern extension which closed the quadrangle and is modern and functional in its plan and material use, with some fenestration deign referencing the historical windows. The convent block makes a positive contribution to its hilltop setting, within a green space and overlooking the town of Ballina, and contributing to the character, scale and definition of Mc Dermott St. A substantial amount of fabric of the early phases (both 19thc.) survives both externally and internally.

The building was designed (and faithfully extended) in partly neo-gothic style and displays high quality architectural design and detailing, externally and internally, with good

craftsmanship throughout. The exterior of the near-symmetrical footprint is centred on an expressed breakfront with slight diminishing in scale of the openings on each floor, high pitched gabled roofline good quality workmanship in its limestone detailing. The interior is generally well detailed in its decoration and spatially pleasing in room and corridor proportions. Special Architectural and Technical significance may be attributed to the design of the (Goldie and Byrne) historical buildings, including internal areas such as the chapel, the chapel apse and entrance hall. Special artistic interest may be attributed to the ornate timber wall and ceiling panels and stained-glass windows of the chapel, and carved masonry and joinery to the interior and exterior of the building. Special technical interest may be attributed to technically unusual and inventive details such as the semi-domed ceiling of the polygonal punctuated by the rose windows, and robust detailing at roof structures.
Parts of the building including some internal spaces may be considered of limited significance.

The convent is an historic landmark of social and cultural importance due to its early establishment in the 19th century by the Sisters of Mercy, contributing significantly to the social history of Ballina with its subsequent use as a convent, chapel, boarding school and secondary school for almost 150 years, on a site close to the town centre, and having been a place of work, education and visit by the Ballina community until recently. Various alterations and additions have been carried out including an extensive removal fixed pews and other furniture and interior woodwork from the convent of convent and other areas.

The site is a former place of worship and burial, and contains a graveyard for former residents. This report concerns the main convent historical building, the gatehouse and their immediate external areas. The landscape features within the quadrangle of the convent are interesting adornments to the site, but none could be said to have historical significance.
The gatehouse is a modest and simple building, constructed in the early to mid 20thc. The building provides a link to the community due to its roadside and site entrance location but may be considered of limited significance

During the lifetime of the convent certain traditions and customs were observed which informed the use of entrance areas, circulation patterns and customs outside and within the building, the use of rooms etc. These customs included rituals including a specific path of entrance to the convent for women who were attending for the first time; specific movements of clergy at certain rituals; customs regarding use of spaces and circulation areas within the building and on the site. These customs and rituals even informed the plan and door locations at some rooms. The traditions form part of the significance of the structure and should be respected and recalled and may inform any proposed re-designs and uses.

Summaries of the significance of the Structure:
The following is a list of factors present in the building which indicate *Architectural, Artistic, Historical, Social, and Technical* significance. DoAHG (Department of Arts, Heritage and Gaeltacht) *Architectural Heritage Guidelines* includes criteria for Special *Architectural, Artistic, Technical, Historical, and Social* interest as follows, summarised with relevance to the Convent building*:*

*Architectural Significance*
*a) A generally agreed exemplar of good quality architectural design;*
*b) The work of a known and distinguished architect, engineer, designer or craftsman;*

*d) A structure which makes a positive contribution to its setting, such as a streetscape or a group of structures in an urban area;*
*e) A structure with an interior that is well designed, rich in decoration, complex or spatially pleasing.*

*Artistic Significance*
*a) Examples of good craftsmanship;*
*b) Decoratively carved statuary or sculpture that is part of an architectural composition;*
*c) Religious art in a place of public worship such as the Stations of the Cross or stained-glass windows;*
*d) Fixtures and fittings such as carved fireplaces, staircases or light-fittings;*

*Historical Significance*
*a) A structure may have influenced, or been influenced by, an historic figure;*
*b) Historic interest can be attributed where light is thrown on the character of a past age by virtue of the structure's design, plan, original use, materials or location…*
*c) Some fixtures and features survive, that are important evidence of former liturgical practice and may have special historical interest for that reason.*
*d) Special historical interest may exist because of the rarity of a structure. Either few structures of an identifiable type were built at a particular time.*

*Technical Significance*
*a) It displays structural or engineering innovation evidenced in its design or construction techniques*
*b) It is the work of a known and distinguished architect;*
*Even where interesting structural elements are not exposed, they are nonetheless of significance and contribute to the character of the building.*

*Social Significance*
*Special Social interest is defined in the DoCHG guidelines as 'those qualities for which a structure, a complex or an area has become a focus of spiritual, political, symbolic or other sentiment to any group of people. A community may have an attachment to a place because it is an essential reference point for that community's identity, whether as a meeting place or a place of tradition, ritual or ceremony. The configuration, disposition or layout of a space or group of structures, where they facilitate behaviour that would otherwise be difficult or impossible, may be of social interest.*

**10. Protected Structures: Planning Approval and Building Regulations**
The structure is included in the Record of Protected Structures therefore that protection covers:
- The inside of the structure;
- The land in its curtilage. Curtilage means the land and outbuildings immediately surrounding a structure which is (or was) used for the purposes of the structure;
- Any other structures on that land and their interiors;
- All fixtures and features forming part of the interior and exterior of the protected structure or any structure on the grounds within the curtilage;

All works to a Protected Structure requires planning permission unless a *Declaration* is obtained from Mayo County Council which details those works which would be exempt from planning permission, or the works may be agreed with Mayo County Council prior to

execution if they do not require planning permission. A Declaration under *Section 57 of the Planning and Development Act 2000* has been requested from the Council.

Planning Approval:
Section 57 of the planning Act allows for the owner or occupier of a Protected Structure to make a written request to the Planning Authority to issue a declaration as to the type of works which it considers would or would not require planning approval. As the works will constitute Material Change of Use planning permission will be required.

Building Regulations:
When Material Change of Use occurs the new use must be constructed in accordance with the Building Regulations. Protected structures are exempt from TGD Part L *Conservation of Fuel and Energy* and Building Energy Certification (BER) requirements
In the case of Material Alteration or Material Change of Use of existing and historic buildings, *the adoption without modification of the Building Regulation Guidance Documents 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 Guidance Documents may be more relevant and should be considered.*

Further Regulations:
Further regulations may apply including in regard to the use of an area to prepare of cook food for the public may require specific standards and separate applications.

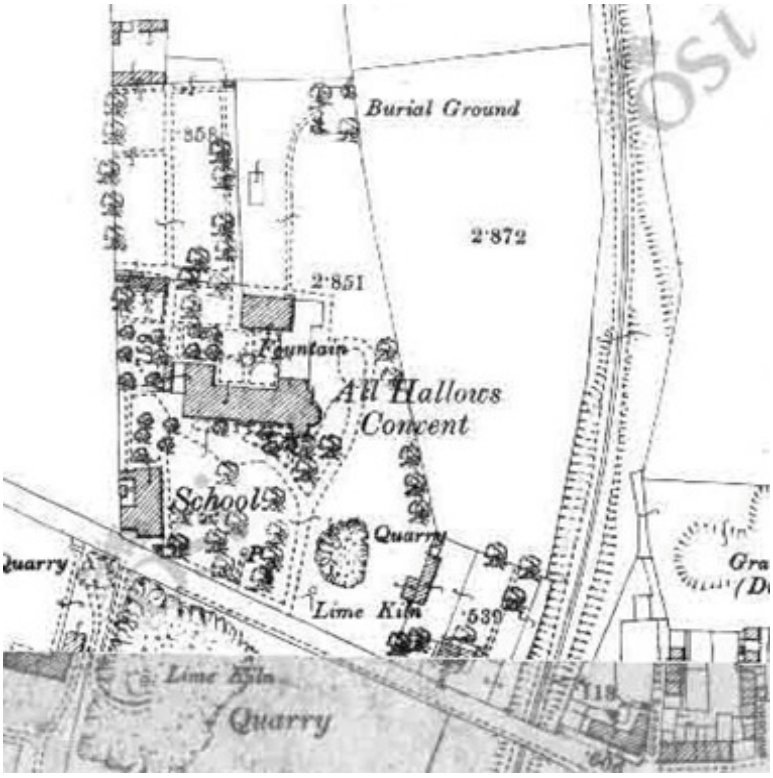
## 11. Legislative Context

*Protected Structures* are defined as:
"Any building, structure, excavation, or other thing constructed or made on, in or under any land, or any part of a structure". The meaning of the term 'structure' is expanded to include the interior of the structure, the land lying within the curtilage of the structure; any other structures lying within that curtilage and their interiors; and all fixtures and fittings which form part of the interior or exterior of the above structures.
*Curtilage* is defined as: The land immediately associated with the structure and what is (or was) in use for the purposes of the structure.
This report is an Architectural Heritage Impact Assessment of proposed works to the main convent building, the gatehouse and relevant site areas intended for long term proposals.

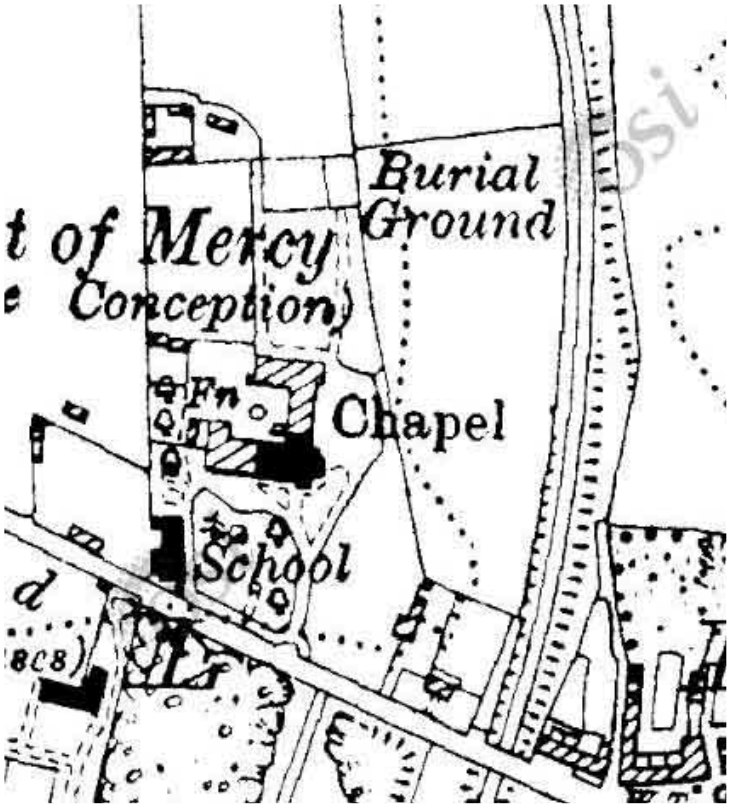
## 12. History of the Convent

<u>Summary of history of the convent building</u>
1867: Original convent building completed on 'greenfield' site, i.e. chapel block and boarding school block to the north - George Goldie Architect.
1889: Extension completed - William Henry Byrne Architect.
1987: Modern extension (completing the quadrangle) completed.
2008: Closure of convent.
2024: The Sisters of Mercy, Western Province, entrusted the building to the *Ballina Convent Regeneration CLG.*

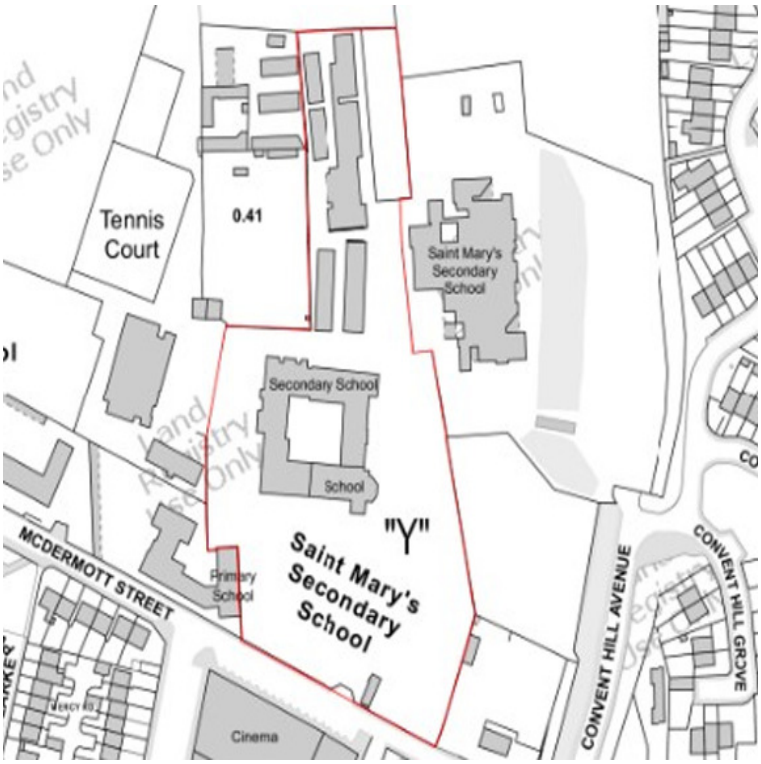
*OS Map 6-inch First Edition c.1837 (No convent development shown)*




*OS 25-inch c.1880s*




*OS Map 6-inch Last Edition early 1900s*




*Modern OS map with relevant site in red*


*Modern aerial view*

The original convent designed by architect George Goldie, is shown on the 1837 6-inch OS map. The layout as shown was the first manifestation of the convent and comprised two main buildings. The large main building contains the chapel and other rooms at ground floor and presumably the living quarters at first floor, as exists at present. The northernmost building appears to have been a boarding school for girls until the 1889 extension was built.
The extended building of 1889 by architect William Henry Byrne became primarily a convent and secondary school, called St. Marys Immediate School. This new extension was a faithful extension of George Goldie's original building in terms of continuation of overall plan and sectional forms, elevational layouts and architectural detailing. Most of the ground floor comprised chapel, classrooms and ancillary school spaces. The first floor comprised bedroom and associated accommodation.
Various other stand-alone facilities were constructed on the site through the 20th century. The final extension to the original convent building was completed in 1987 and the extension coincided with the opening of a new purpose-built school on the site. This extension closed

the block to form a quadrangle and was designed in a modern style, retaining the basic scale and form of the original blocks with some design references to the original stone detailing to be seen at windows.
This extension coincided with the construction of a purpose-built school on the site.

Sisters of Mercy in Ballina
The Sisters of Mercy were formed by Catherine McCauley in Dublin in 1831, the principal aims of the Congregation being to educate poor girls, lodge and maintain poor women who are in danger and to visit the sick and the poor. Their arrival in Ballina '*followed many requests from Very Rev. Patrick Malone, the Ballina Administrator, who was anxious to improve social and education standards in the aftermath of the dreadful famine'* (Terry Reilly, *Dear Old Ballina*). Dr Hugh Conway, Bishop, and Fr Irwin travelled to America to raise funds for the convent building. The cost of the convent was twenty thousand pounds. The sisters also operated an orphanage at the convent shortly after it was opened and boys were taught net-making and other skills.

From the website of St. Marys Secondary School, Ballina:
*On the 14th of October, 1851, at the earnest and repeated request of the Very Rev. P. Malone, then Administrator of Ballina, the Mother Superior of St. Patrick's Convent of Mercy, Sligo, Mother M. De Sales McDonnell, accompanied by Sr. Mary Joseph Jones and Sr. Mary Augustine Nolan, professed nuns; Sr. Mary Angela McHugh and Sr. Mary Gertrude O'Connor, novices, and Honoria Kevany, postulant, came to Ballina and took up their residence in a large house provided for them in Knox Street. The house was located where the new Allied Irish Bank is now built. However, the house was too big, unfurnished and situated in a locality unsuited for a convent.*
*Soon after their arrival in Ballina the Sisters were on the move again to a smaller house on the Rehins Road, very prettily situated with a lawn in front, a small grove at the back and walk all around, having a view of the river and the town. The house, then owned by a Mr. West, is now occupied by the Quinn family. In December, 1851, Mother M. De Sales returned to Sligo leaving Sr. M. Joseph Jones in charge. Ballina remained a branch house of St. Patrick's, Sligo, until 1854.*
*In January, 1852, Mother M. Joseph became ill and was unable to continue her work Mother M. Paul Dillon was sent to take charge as local Superior on January 15th, 1852. The snow was falling for almost the entire journey as she and Sr. M. Augustine travelled to Ballina by the public car. Mother De Sales died on 13th July, 1854, and on the 16th July, 1854, acting on the express wish of Mother De Sales the new Ballina foundation was launched in the presence of the Most Rev. Dr. Feeny. Mother M. Paul Dillon was appointed Mother Superior. Following their vows to a life of caring, the Sisters soon made a foothold in the local community when they took charge of the Girls' National School in that same year. Two years later they set up a Benefit School for Catholic children in the town and by 1855 they felt the necessity to move nearer to the schools and so moved their convent to two adjoining houses in Arthur Street. (The caring tradition which was brought to this place by the Sisters has continued since as it is now the site of the Community Centre where the Sisters of Mercy continue to serve the poor with the help of the St. Vincent de Paul and other societies). During their days in Arthur Street the Sisters had many trials and worries, including severe financial hardship. However, they survived from day to day and opened a Poor School in an old disused corn store on Ardnaree Hill soon afterwards. Here they taught mainly girls, although boys were allowed to attend until the age of 10 or 11 years, and had to trudge home each evening to often little more than a small saucer of porridge for dinner. Many young*

*Sisters gave their lives to the poor people in this way as most of them had been brought up in much better circumstances.*
*September 13th, 1863, was an historic occasion for the Sisters of All-Hallows Convent as the foundation stone was laid for the present convent building near the workhouse and Fever Hospital (now St. Joseph's Hospital). Called the Convent of the Immaculate Conception, All-Hallows, the building was finally erected due to the dedication and perseverance of Rev. Patrick Irwin, who was then administrator in Ballina, and on May 3rd, 1867, the Sisters moved out into their new home, which has expanded ever since to its present capacity.*
*Early days*
*For a number of years a boarding school for girls operated in the Northern wing of the Convent — it closed in the 1880s to make way for a new secondary school which, when opened, was called "St. Mary's Intermediate School".*
*Very few records of the early years exist up to 1911; even the principal's name is unknown.*

From the website of Congregation of the Sisters of Mercy, Nancy Clarke, Western Province:
*The Sisters of Mercy came from Sligo to Ballina on 14th October, 1851. On 8th December the Sisters of Mercy took charge of the female National School where four Sisters were teaching 330 pupils. It took some time to find suitable accommodation. The foundation stone of the Convent was laid on 13th September, 1863 and the Sisters moved into this building on 3rd May, 1867. In 1868 following the tradition of Catherine McAuley, who believed in educating young girls, a room in the new Convent was used for this purpose. This was the forerunner of St. Mary's.*

The Sligo Champion, September 26th 1863 (excerpt)
*The laying of the foundation stone at the Convent of Mercy, Ballina.*
*Sunday last, being that fixed for the laying of the corner stone at the Convent of Mercy in Ballina, will be a memorable day on the future annals of that fine old Catholic town. The deep interest felt for the erection of a suitable residence for the good Nuns was not confined to the town, considerable numbers of people from out-lying districts having proceeded to the site during the morning, for the purpose of witnessing the sacred ceremonies, and providing by their presence their sincere gratification at the auspicious event. At 12 o'clock Mass the splendid Cathedral was filled in every part.*
*On the previous evening a cross had been placed on the site of the intended chapel of the convent and his lordship vested with white cops and mitre, and crozier in his left hand, blessed water and sprinkled the place where the cross stood, at the same time, the chair of priests in soutans and surplices chanted the third psalm.*
*After sprinkling the stone with holy water, taking a trowel on each end of the stone he made the sign of the cross*

The Evening Freeman – Dublin, Saturday May 11th 1867


The Evening Freeman.
EW SERIES. DUBLIN, SATURDAY, MAY 11, 1867. PRICE ONE

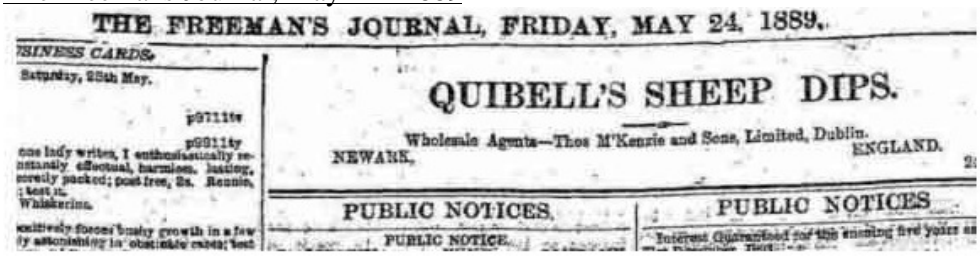

THE NEW CONVENT IN BALLINA.
The new convent of Ballina is all but completed, and ready for its intended occupants. We had an opportunity of seeing it last week, and we must say that we were very highly pleased with the entire

*The New Convent in Ballina*

*The new convent on Ballina is all but completed and ready for its intended occupants. We had an opportunity of seeing it last week and we must say that we were very highly pleased with the entire structure. The design, now that the building is up, appears admirable and well adapted to the object in view, while the execution is perfect. The convent is on a commanding position from which views of the country for miles around may be obtained, and even of Foxford on a clear day. From one side the town is seen lying underneath, from another side the far-extending and beautiful woods and groves of Belleek, while yet from another, Lough Con appears, and the pretty-looking white houses of Lord Arrans property in the distance. A finer site could not have been selected. The building is situated some short distance from the road. In front will be a parterre and large open space. The material used in the building is principally limestone obtained on the ground or taken from Moyne. The stones were all carefully prepared previous to being placed on the building. The dressing of those used on the entrance door, the windows, and the chapel is elaborate and beautiful and fully as good as that to be found in connection with our abbeys or the best of our modern ecclesiastical structures. The stones have all been cut on the place, and by tradesmen of the town, the Messrs. Matthews. To the right of the entrance hall is the chapel, a structure on the gothic style, the moan portion of which it is intended to reserve for the Sisters of Mercy, while a portion or rather an off-place has been set apart for the general public. The ceiling will be of stained oak, and the apse, a very beautiful part of the building, and of itself worthy of a visit, is already completed in this way. The chapel fixtures and furniture will all be of oak. All the ground floor excepting that of the chapel is composed of red and blue tiles, which have a very good appearance. The hall is spacious. To the left of it is a refectory, a noble apartment, 40 feet on length by 25 feet on width, lofty and well lighted. The kitchen, pantry, dairy, laundry, yard etc are also on this side of the house, and each and every one is perfectly fitted up. There are sitting rooms also on the ground floor, which are supplied with marble and slate chimney pieces, and are otherwise well finished off. The second floor is approached by a spacious stair case, made of oak, and exquisitely carved. It is grand in its simplicity, chasteness, and apparent lightness. The visitor is landed in the corridor, which extends the entire length of the building, and along each side of which the dormitories are situated. The vista along the corridor is very pleasing, from the great length and suitable ornamentation. The dormitories themselves are admirably constructed and well lighted from the outside, and fan lights over each door. Thorough ventilation is secured. In the wings at both sides of the building are drawing and sitting rooms, an hospital, bathrooms, closets etc. Into every apartment of the house, we believe gas pipes have been introduced, and there is also a plentiful supply of water, which is conducted by pipe to the top of the house, the water being obtained from a pump on the grounds. The plumbing work was executed by Mr Maxwell, and seems very perfect. The drainage system is an admirable on, earthen pipes being used exclusively, which are sunk to a considerable depth and communicate with an immense air-tight reservoir, placed deep in the ground at some distance from the house. In fact, nothing seems wanting to make the house a perfect and delightful residence in all respects. In any description we could give of it we should fall short of doing the building full justice. During the few days which may elapse before the building is occupied, those having taste, and curious about such matters should go see the building for themselves, raised by local resources, by local tradesmen, and with materials from the locality. The Rev. Mr Irwin personally superintended the building of the convent and to him the credit of the undertaking is due, as we understand he originated it, and raised the large amount of money, necessary to proceed with and complete the undertaking. The building has proved a greater success than even the most sanguine and faithful at the outset anticipated. It reflects credit on the zeal,*

*liberality and perseverance of the Catholic administrator and Catholic people of the parish, and no less credit does it reflect on the tradesmen employed, all of whom, as we have said, are local. In another point of view this building is not without interest either. The expenditure of money on connection with it has been considerable, amounting during part of the year to as much as 40l, and 50l, a week; and while the money has been obtained from various sources, both far and near, the expenditure has been as nearly as possible confined to the locality. Everything that it was possible to obtain in town was obtained there, and no other labour we believe that was employed on the building than that which was locally afforded. In this respect, the promoters of the building showed a spirit and patriotism very rare in this country, generally where everything is held to increase in value and importance in proportion as local men have nothing to do with it. But they have their reward.*

The Freemans Journal, May 24th 1889



THE FREEMAN'S JOURNAL, FRIDAY, MAY 24, 1889.

BUSINESS CARDS.

Saturday, 25th May.

QUIBELL'S SHEEP DIPS.

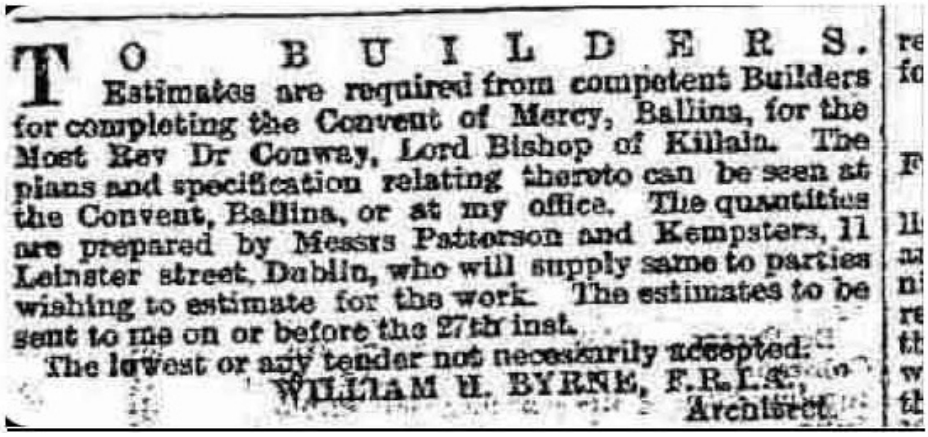
Wholesale Agents—Thos M'Kenzie and Sons, Limited, Dublin.

NEWARK, ENGLAND.

PUBLIC NOTICES.

PUBLIC NOTICE.

PUBLIC NOTICES



TO BUILDERS.

Estimates are required from competent Builders for completing the Convent of Mercy, Ballina, for the Most Rev Dr Conway, Lord Bishop of Killala. The plans and specification relating thereto can be seen at the Convent, Ballina, or at my office. The quantities are prepared by Messrs Patterson and Kempsters, 11 Leinster street, Dublin, who will supply same to parties wishing to estimate for the work. The estimates to be sent to me on or before the 27th inst.

The lowest or any tender not necessarily accepted.

WILLIAM H. BYRNE, F.R.I.A.I.,
Architect.

*Advert from William H Byrne to complete the Convent of Mercy, May 1889*

*View from south east of the convent including the 1889 extension*

Construction of extension 1987

Through the 20th c. other stand-alone buildings were constructed on site to cater for ever-increasing pupil numbers. In 1987 an L shaped, flat roofed extension was built to the convent, which completed the south and west sides of the block and created the full quadrangle.
At the same time a purpose-built school was built on site to the east of the convent.

Closure of the Convent

Fr Kevin Hegarty in the Mayo News, 26 November 2008
*Sisters of Mercy Convent, Ballina, Co. Mayo.*
*The Sisters of Mercy announced that the convent in Ballina is to close in the next few months. Some sisters will continue their pastoral ministry from their new homes in local housing estates. The convent is one of the most distinctive buildings in Ballina. Designed by George Goldie, one of the leading Irish architects in the 19th century, and constructed shortly after the sisters arrived in the town in 1851, it is a Gothic revival building, with overtones of Moyne Abbey. It contains a beautiful chapel, embellished by rose windows. Jeremy Williams comments favourably on it in his book 'Architecture in Ireland, 1837-1921'. In common with most people who grew up in Ballina, part of my personal history is entwined with that building on the hill. One of my earliest childhood memories is of seeing the nuns, dressed heavily in black, their veils almost enclosing their faces, reciting the rosary on a summer's evening in a slow, balletic procession outside the convent.*

Architect George Goldie

George Goldie (1828–81 b. York, England) was an English ecclesiastical architect who specialised in Roman Catholic buildings, and was engaged to design the original convent buildings (completed 1867 and as shown on the 25-inch OS map).
Notable Irish buildings designed by Goldie include:

- St Nathys Cathedral, Ballaghaderreen, Co. Roscommon
- Cathedral of the Immaculate Conception, Sligo
- Extensions to St Joseph's Ursuline Convent, Sligo
- Church of the Immaculate Conception at Ballymote, Co. Sligo
- St Vincent's College, Castleknock, Dublin
- St Peter's church, Phibsborough, Dublin
- St Saviour's church, Waterford
- St. John's College, Waterford
- St. Patrick's Church, Bandon, Co. Cork
- St Mary's church, Clonmel

Architect William Henry Byrne

William Henry Byrne (1844–1917 b. Dublin) was an Irish architect, and specialised in church and related buildings. Byrne was engaged to design the convent extension (completed 1889 and as shown on the 6-inch Last Edition OS map).
William Henry Byrne was architect to the Catholic dioceses of Killala, Ossory, Tuam, and Achonry and to the Sisters of Charity in Ireland, who ran the Mater, St Vincent's and Temple Street hospitals in Dublin and is particularly associated with Catholic church architecture.
Notable Irish buildings designed by Byrne include:

- St. Muredachs Cathedral, Ballina
- St. Muredachs College, Ballina
- Saint Joseph's Convent of Mercy, Ballyhaunis
- Ballymote Cathedral
- Carmelite Abbey, Loughrea, County Galway

- Cathedral of the Immaculate Conception, Sligo
- St. John's College, Waterford
- St. Patrick's Church, Bandon, Co. Cork

Excerpt from *Dear Old Ballina* by Ballina Author Terry Reilly

*The Convent of the Immaculate Conception All Hallows, Ballina, is the home of the Sisters of Mercy, who arrived from Sligo on 14/10/1851. Their arrival followed many requests from Very Rev. Patrick Malone, the Ballina administrator who was anxious to improve social and education standards in the aftermath of the dreadful famine. They were led by Reverend Mother De Sales, obviously a very resourceful woman who had overcome many difficulties, not the least of them being the furnishing of their house on Pearse St.*

*The house had belonged to Dr. Barrett, executed for his part in the 1798 rebellion and in more recent times house the Munster and Leinster Bank before being demolished with an adjoining property to make way for the new Allied Irish Bank premises. When the Sisters arrived the house was unfurnished, but Fr Malone asked the people of the town to provide furniture and utensils. They obliged but some days later surprised the Sisters by reclaiming their property.*

*The Sisters moved to Primrose Hill some ten days later (the house is now owned by the Quinn family) and, by 1855, they could be found in more spacious accommodation at Arthur Street (now the Community Centre), by which time the community had grown to eight, including four postulants.*

*The convent building which we have all come to know was designed by Mr Goldie of London at the request of Very Rev. Patrick Irwin, the administrator of the parish and a great benefactor of the Sisters, and the foundation stone was laid by the bishop of Killala, Most Rev. Dr. Feeny on September 13th, 1863. A four-acre site had been acquired at four pounds per acre on a lease of 999 years from Mr John Bourke. Finding the money to erect the convent building to house the Sisters proved a difficult task but by May of 1867it was sufficiently advanced to move into and it was duly blessed before a huge congregation. But it was far from finished. Fr. Irwin wanted to go to America to raise funds for its completion. He was sent, however, as parish priest to Kilglass. He moved to his new parish on August 24th of that year, the same evening as the reception of four young Sisters took place, the sermon being preached by Fr. Fortescue, S.J.*

*Dr. Hugh Conway exceeded Dr. Feeney as Bishop and Fr. Irwin sought permission to go to America to raise funds for the Convent building. It was granted and he raised enough money to complete the front wing. It seems he stayed too long, however, and on his return was deprived of his parish, but was befriended by the Sisters who visited daily: he is still prayed for daily n all the Sisters' houses. He was laid to rest in Kilglass cemetery. (The cost of building the Convent was twenty thousand pounds).*

*The Sisters, upon their arrival in Ballina, opened several schools, the first being the girls' N.S. on December 8th 1851. The Benefit School opened its doors in January, 1853, and all the ''respectable catholic children of the town attended''. Country girls took lodgings in town to attend. Around that time, too, the Sisters opened and Poor School on Ardnaree Hill, mainly for girls, though some boys also attended, in a disused corn store.*

*It was a rough time for the nuns, who literally never know where the next penny was coming from. But they survived and in 1885 they were able to open their new school, adjoining the Convent proper. Support for the project had been gaining momentum for three or four years, and the building cost the princely sum of nineteen hundred pounds. Over seven hundred pounds was raised by public subscription and eight hundred pounds was borrowed at three per cent interest. The Sisters also operated an orphanage at the time at the Convent shortly after it was opened, and there, boys were taught net-making and other trades. The nuns were*

*also prominently associated with the Workhouse, taking up duty there in May of 1895, and later still, assumed charge of the District Hospital. A very comprehensive record of the Sisters of Mercy is given by Monsignor McHale in his South Tirawley edition of 'The Parishes in the Diocese of Killala'.*
*The upper portion was at first for the seniors and the lower for the babies, with a gallery room for the youngest children.*
*For a number of years, a boarding school for girls operated in the Northern wing of the Convent. It closed in the 1880s to make way for a new secondary school which, when opened, was called St. Mary's Intermediate School. Very few records of the early years of this school exists up to 1911. Even the principal's name is unknown. Subsequent principals were Sister Anne McGoohan (1913-1943); Sister Philomena (1943-1960); Mother M. Benedict 1960-1972); Sister Genevieve 1972-1981; Sister Attracta Tighe (1981-). In 1926 the Intermediate School became an ''A'' School teaching all subjects through Irish – a policy that continued to 1965.*
*The nuns have added on many other facilities for teaching and recreation, including the assembly hall which was opened a few years ago, and of course St. Mary's Secondary School. The latest expansion to this school took place in 1987 when the new split-level building of 2,350m sq. was opened. The local contribution to the cost was € 150,000.*

From research by Ballina Author Terry Reilly - *Mayo Examiner 1868-1876, 24.8.1868:*
*BALLINA CONVENT OF MERCY*
*Ballina Convent is fast progressing towards completion; and, unfinished though it is, a visit will repay the visitor. Within the space of four acres will stand a beautiful and capacious edifice; but, before we reach its precincts, some agility of limb is required to get over Barnadarrogue, once the principal highway to the town—from its present disgracefully neglected state. Should this public way be left unrepaired much longer, it is to be apprehended that it will be wholly inaccessible. But not until I climbed over this bad road, and until I reached the Convent grounds, did the whole exterior frontage begin to shape itself in our mind. I entered on the principal front of the building, which faces eastwards. The style throughout is the "mixed," now introduced about twenty years; but the Gothic style is most prominent throughout the whole of the building. The apse, which is very handsome, holds a prominent place in the building as it stands. It contains three dormal windows. In the apex is a beautiful niche for the figure of the patron saint of the diocese - St. Muredach - supported by carved columns and ornamental caps; and the gable over the apse is finished with an Irish cross, beautifully carved, the work of a native artist.*

*The sacristy chimney is a graceful but solid piece of work, and, perhaps, as much as anything else, displays the superior workmanship expended on the building. There will be four fronts to the building. I entered by the door of the secular chapel; exquisitely softening rays shoot across through the fine gothic side-lights, under which are the sisterhood engaged in prayer, and in their sacred company is a young lady—apparently an invalid. I could not, without risk of intrusion, enter the little chapel until the Sisters had concluded their devotions; and, to avoid disturbing the holy quiet*

*which prevailed, I was obliged to remain in the secular chapel until the sisters retired, when I was favoured with an entrance. The principal portion of the building completed is the chapel, which is 25 by 30 feet. The apse is half octagon, with a radius of 12 and a half feet; the refectory is 15 by 25, and the secular chapel 25 by 30 foot. The apse has a moulded gothic arch, supported by columns with beautifully carved caps, and is lit by three circular windows chastely filled in with stained glass. The ceiling is in moulded veils fifteen inches square—to be filled in with satin paper, and the mouldings gilt. Perforated brackets, with trefoil spangles, support the beams of the ceiling. Five gothic windows, the tracery of the heads of which is filled in with stained glass, complete the lighting. The chapel, as well as the entire building, is fitted for gas. The ceilings are lofty, and the dryness and ventilation of the building—so far as it is finished—are perfect. The mantelpieces are of marble, chaste in design and pattern; the altars of carved wood,—these have been provided in London. A neat, but capacious and solidly constructed, reservoir occupies a central position in the north return. There are then the cloisters and kitchen. The first floor contains twenty-five cells and a community room. The remainder of the building—comprising school accommodation for ladies and infants—is in course of erection.*

*The convent site is on an eminence, and it commands on aspect unbounded in extent as it is diversified in beauty. Returning to the grounds the visitor can indulge his romantic tastes, melancholy moods, or quiet habits. The bright rays of an unclouded sun have chased shadows far away, and have brought to full view every hue and colour, and gradation, in the grand panorama before him. At his very feet he will find a multitude of objects, and points of interest, to gaze upon from this Sacred spot, each and all suggestive of the grandeur of the creation of the Almighty Being whom it is the holy mission of the quiet inmates of the Convent to rigorously, yet joyously, serve. It is harvest time, too, and nature displays all the richness, perfection, and luxuriance peculiar to the season. But while this new building, in all its beautiful youth and freshness, binds one's attention almost exclusively to itself, there are old buildings all around this place, too, whose purpose was not different, and which, though in their season of decay, awaken no less a deeper or a holier sentiment, and a pleasing melancholy which I would be unwilling to exchange for more exciting spectacles of historic splendour. In preambulating the now roofless and voiceless cells of the old abbeys which abound here, we have little need to resort to conjecture for their early purpose, or for the grandeur of their early completeness; yet, while we must continually lament the ruthless assaults of persecution and of time,*

*it is questionable whether their history ever presented such varied charms and claims to public attention as at the present day. And had the good Abbots of old lived, they, too, would behold a curious sight in their ruins, and a rueful sight in our modern institutions—our gaols, our poorhouses, and the Church Establishment! But, if these be*

*only ruins, we can avail ourselves of the permission to explore, and, in imagination at least, restore these noble, religious, charitable, and educational institutions of the olden time! The Convent brings up for the rich and the poor, the charitable and the religious, for the young and the old, of its entire neighbourhood, hopes and blessings that will extend far beyond the grave. Well may Father Irwin congratulate himself on his Christian labours and his holy zeal, displayed in the erection of such a citadel of religion and charity—consoled must be the people who contribute to this sacred structure, and well may they whose strong hands built it up feel proud of its construction. Mr. George Goldy, of Portland-square, London, is the architect; Mr. Arthur Canning, of Ballina, is the clerk of works, by whom the execution of the work (according to the intricate plans) has been so faithfully and efficiently carried out. It is but just to say that the splendid Cathedral of the town of Ballina was also erected under the superintendence of this talented man; and in beautiful contrast - stands its majestic spire of 187 feet with the splendid Convent of Ballina,*

Excerpt from *Heritage Buildings, Increased Rainfall and Climate Change Adaption* A project submitted to UCD by Martin Henihan, May 2023

*The building was recorded on the NIAH survey in December 2008. The photographs accompanying the survey show the building to be in good repair and the appraisal describes the building as "having been well maintained" (Fusio, 2008). However, the convent was closed in 2009 after which the condition of the building has suffered from a lack of general maintenance. The building was victim of an attempted strip out of electrical cable shortly after the sisters left the building. The windows were then boarded up as a security measure, and later security cameras and an alarm system were installed. This boarding up of all windows and doors to all elevations (including those to the internal courtyard) has resulted in major condensation problems throughout the building due to lack of daylight with its natural antibacterial qualities (Holland, 2018) and without the benefits of any solar gain that might be afforded internally. The 13-14-year period since the closure of the convent has seen water ingress and damage, primarily due to the lack of maintenance of the rainwater goods. This boarding up and resulting condensation (and darkness) would seem to have accelerated the damage by creating the perfect conditions for rot and decay to thrive. It is apparent that the historic general maintenance prior to the closure in 2009 would not be in line with the conservation recommendations/specifications of present time, i.e. repairs to pointing, repairs to rainwater goods, etc. The past use of incompatible materials in maintenance and repairs, followed by a long period of neglect has put this building in urgent need of remedial intervention to arrest further deterioration and safeguard its future. With the predicted rainfall increase in Ireland, particularly in the west of Ireland, the condition of the building is of concern. The impacts of climate change, in particular extreme weather events, were demonstrated to promote the deterioration of heritage buildings and therefore reduce their functional and physical service life (Prieto et al., 2020). It is evident that the stress on historic buildings, such as the Convent of Mercy, will continue to increase due to the predicted intensity of precipitation.*

Gatehouse History

The gatehouse building is not shown on the 6inch last edition OS map and therefore was constructed relatively late in comparison with the main buildings, and likely early to mid

20thc. Small buildings in the area of the gatehouse are shown on the earlier OS maps, which likely included a gatehouse or similar functions and all of which have been removed. The house is an example of the kind of small lodges that were used throughout Ireland as a home for full time staff and immediate security at the entrance gates.

Note on the extension by William Henry Byrne

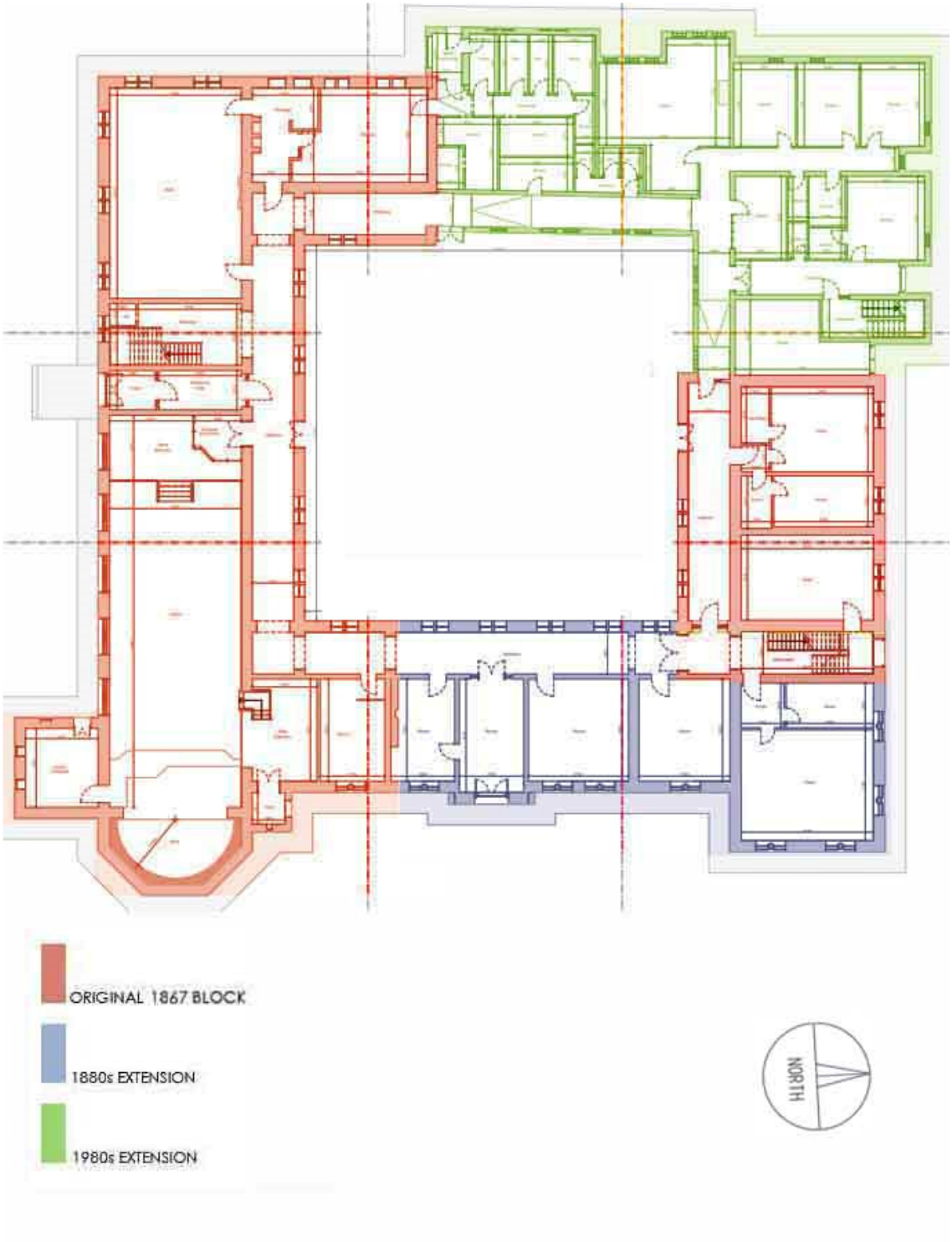
The works on the 1880s by Architect Byrne serve to join the two-storey chapel block with the two-storey northern block, and creates a new mainly symmetrical front elevation with new break fronted main entrance. The plan form and general detailing of the extension faithfully reproduces the style and detailing of George Goldie in his original design. No drawings were yet available of the original or extended design, but it may be that the extended design is as originally intended by Goldie and realised by Byrne, as the final plan is coherent whole. The second phase consists of larger rooms which may not have been feasible to construct in the original build of 1863.

There are few visible differences in the construction methods and detailing when comparing the original and extended works. These include the surface texture of the external facing stone blocks, and some of the details of the cast-iron rainwater gear and other small variations at internal and external.

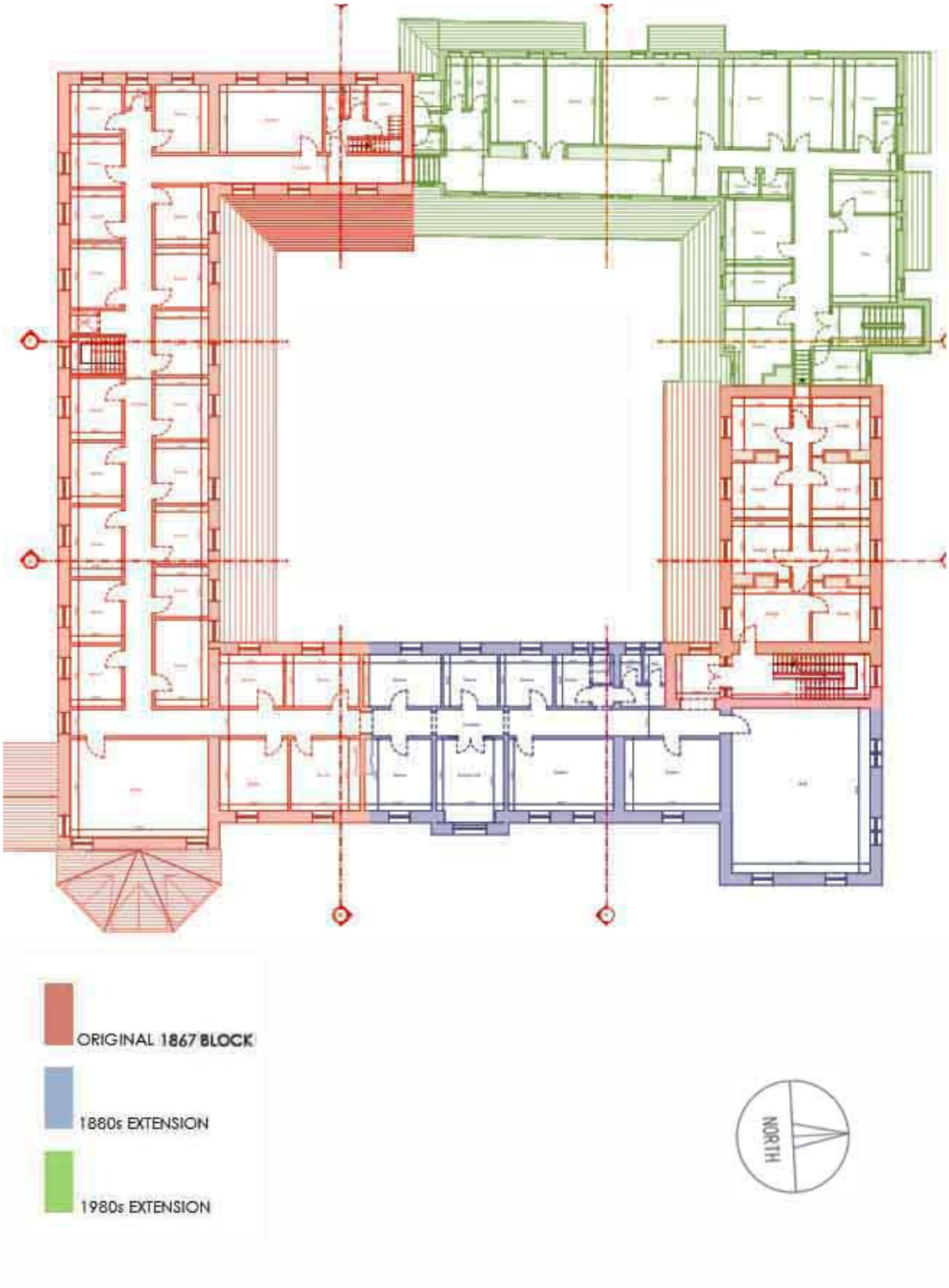
The interior layout at first floor and attic space of the original (Goldie designed) northern block has been removed in lieu of modern partitions and doors, possibly carried out at the time of the 1980s modern extension works.

**13. Original Building and Extensions - Progression**

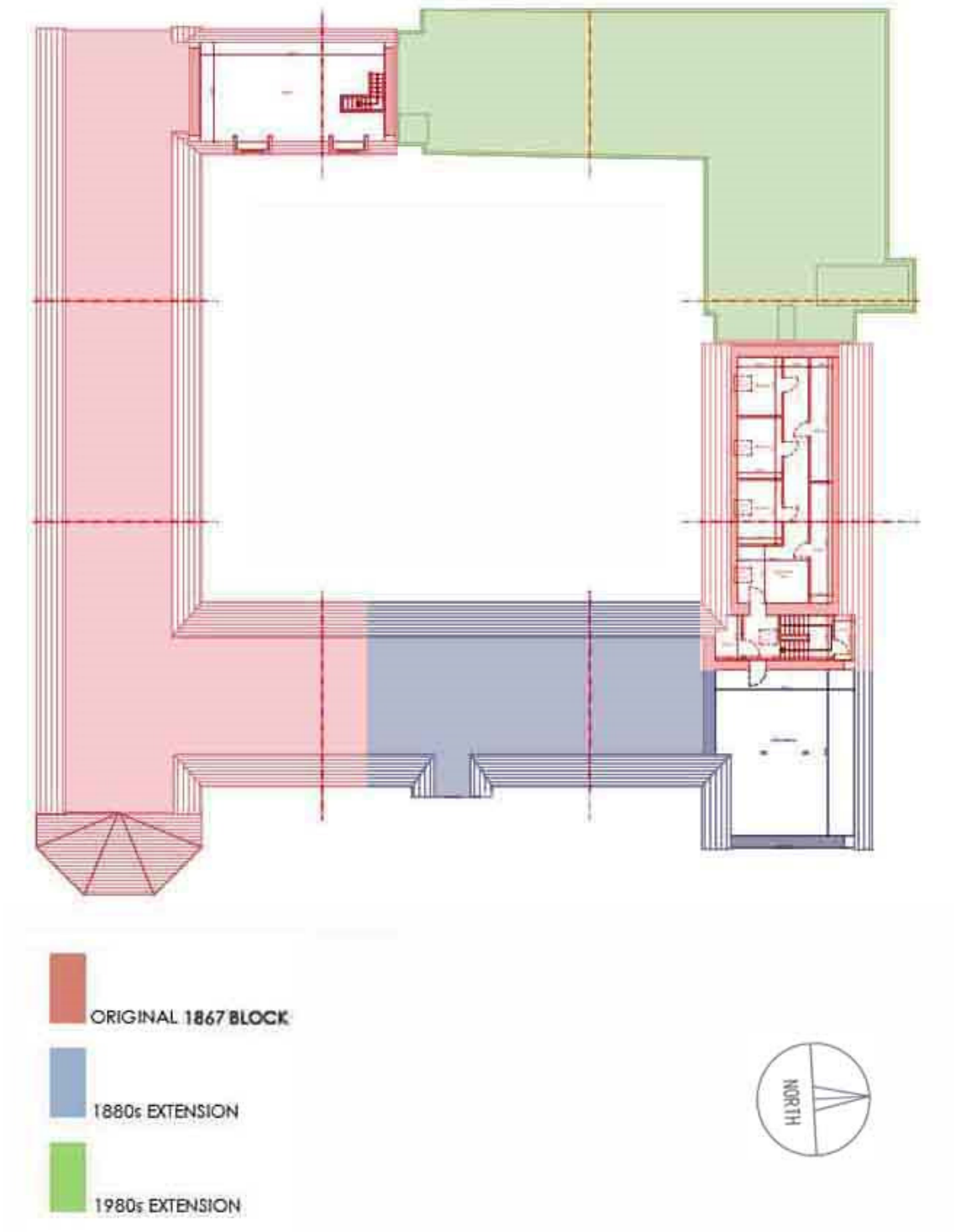
The following plans and elevations show the structure colour coded to show the historical progression of the construction of the main three phase of the building.




*Ground Floor – Showing Building Progression*



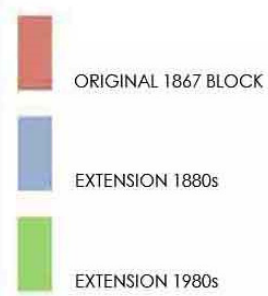

*First Floor – Showing Building Progression*




*Roof Plan Showing Building Progression*

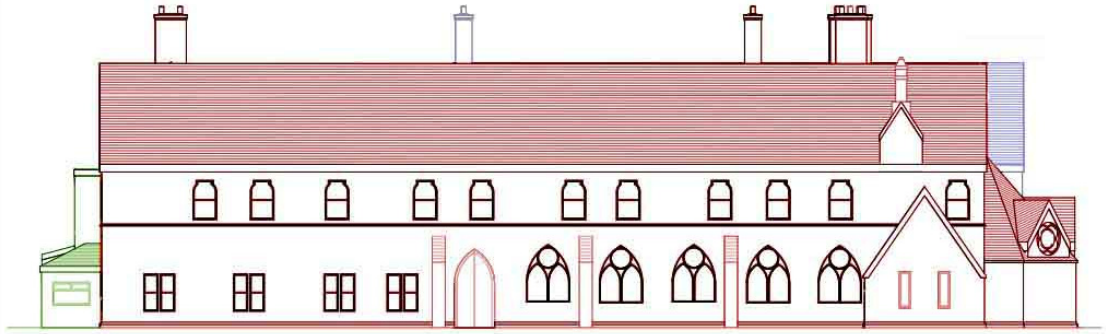
EAST ELEVATION

NORTH ELEVATION

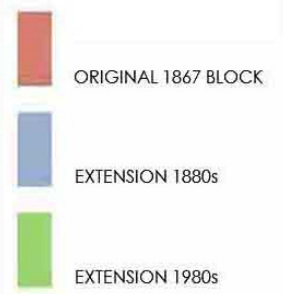



*Elevations Showing Building Progression*

WEST ELEVATION



SOUTH ELEVATION




*Elevations Showing Building Progression*

## 14. Conservation Strategy

The conservation strategy below is based on the process of caring for the building and site and of managing change to them in such a way as to retain their character and special interest. The strategy is guided by the principle of minimum intervention as set out in The Burra Charter which advocates a cautious approach to change, under the general aim of doing as little as possible, but as much as is necessary.
The following are some of the guiding conservation principles which should be adhered to in any works proposals at the convent:

Keeping a Building in Use
Non-use of the building or parts thereof is the main threat to the historical building, causing redundancy and neglect, whereby lack of maintenance, heating and ventilation can lead at exacerbating rates to deterioration and loss of historical fabric.

Research and Analysis
Conservation work to be based on a detailed understanding of the building and its historical development. The primary aim should be to retain and recover the significance of the building.

Expert Conservation Advice
All works affecting the fabric of the convent should be designed and carried out only using exert advice from a conservation professional and using experienced and skilled conservation building practitioners.

Protecting the Special Interest
Any proposed uses and works must be appropriate to the character and special interests that make up the significance of the convent building. The relatively good condition and large amount of surviving historical fabric at the convent should contribute to and inform the proposed works. continuing to use the rooms, fixtures and fittings as much as possible without alterations, and any necessary alterations respecting the special interests and historical nature of the building.

Minimum Intervention
The Convent building's antiquity and the worn appearance of old features and some finishes contributes to the significance of the structure. Minimum intervention is the concept of low-key intervention and involves keeping as much and changing as little as possible.
Repairs can prolong the life of an old building without loss of character. Replacement of fabric must be absolutely necessary and should be kept to the minimum to ensure that the building is left structurally sound and stable but not necessarily pristine.

Honesty of Repairs and Alterations
Any new alterations should form part of the history of the fabric of the convent building, and should be 'of their time', without having to look old to match the existing fabric. New additions to the fabric should be discernible on close inspection, but should not detract from the overall visual integrity of the structure.

Use of Appropriate Materials and Methods - Like-for-Like
Appropriate materials and methods in repairs, interventions must be used to ensure the long-term survival of an old building. New works (as apart from repairs) may differ or contrast

with the old if the design and materials used are sufficient quality to be appropriate to the historical fabric adjacent.

Respecting Earlier Alterations of Interest
The convent underwent a number of alterations over its long history, and there have been additions to the historic fabric through the 20th c. Some of the additions and alterations contribute to the character and integrity of the convent and should not be removed. Any fabric to be removed for the works, should only be removed after research and informed judgements, and each case should be studied and approved prior to the works.

Ensuring Reversibility of Alterations
Any repairs or alterations to the existing surviving historical fabric and which impact on significant elements of the building should be carried out using techniques that allow for removal of the works without loss to the historical fabric.

The main objectives to be considered in proposals for the protected structure include the following:
- Record the existing buildings and site noting past interventions;
- Record and appraise existing fabric;
- Provide guidance on best conservation practice for the repair of its historic fabric;
- Carry out emergency repairs to arrest ongoing severe damage to the structure and fabric of the convent;
- Carry out comprehensive restoration of the convent building;
- Re-use the building and maintain in continual use providing appropriate and viable uses, including the re-use of the chapel's religious function;
- Re-use and promote the grounds for public use;
- Re-use the gatehouse in relation to the proposed new uses;
- Preserve and promote the building and site as an important heritage asset for the town of Ballina, including provision of comprehensive information relating to the history of the convent and the Sisters of Mercy in the convent, on public view. Promote understanding the place and its cultural significance, including its meaning to people, before making decisions about its future;
- Promote effective maintenance of the building, including an on-going maintenance plan and strategy;
- Involve the local communities;
- Use available expertise;
- Interpret and present the place in a way appropriate to its significance.

## 15. Descriptions of the Structure

Overview
Detached eleven-bay two-storey convent with attics, on quadrangle plan. Historic block was a H shaped plan built in two phases, commencing 1867 and completed 1889, with modern extension to close the quadrangle completed 1980s. Two-bay (six-bay deep) two-storey gabled projecting end bays centred on single-bay full-height buttressed gabled breakfront. Historic sections have pitched slated roofs on neo-gothic style limestone blocks with various timber sliding sash and stained-glass windows.
Plan form generally of larger rooms at ground floor with large chapel space with projecting apse; first floor mainly cellular bedroom layout with some larger spaces; minor 2nd floor attic areas; modern two-storey extension @ approximately ¼ of the floor area, completes the

quadrangle. Wide corridors to each floor of the historical blocks and corridors continue through the modern extension to allow continuous circulation.

**Ground floor: 1415sqm**
Main entrance to east with large foyer;
Second entrance to south;
Large chapel space with rear balcony at general floor level to rear, dropped main floor area, slightly raised floor to the altar area with semi-circular apse, and public balcony with separate mono-pitched porch entrance to front;
Main hall;
Original kitchen space blocked fireplace and partitioned sections and modern kitchen catering fittings;
Series of original large rooms throughout ground floor with some later partitioning within, all set on wide corridor around a central external quadrangle space;
Two original staircases, denoted 'main' staircase at south block beside chapel and 'second' staircase, at north block;
Various original fireplaces throughout;
Modern two storey concrete block-built, flat roofed extension completing the quadrangle, at the southwest corner, with rear entrance adjacent original kitchen with large and small rooms at ground floor and staircase. Ground floor level of modern block raised 300mm above historical blocks floor level with short ramps at modern extension corridor at each end of corridor, which completes the continuous quadrangle corridor;
Boiler room with doors to external.

**First floor: 1182sqm**
Small and medium sized original cellular bedrooms laid out each side of a central corridor at south, east and north historical blocks;
Small modern toilet area;
Original bath and commode area;
Original (1860s) north block has cellular bedroom constructed with modern partitions and doors;
Larger rooms at east end of south and north blocks;
Various original fireplaces throughout;
Modern extension floor level is 1.2m below historical block floor level, with short flights of steps at each end first floor corridor, which completes the continuous quadrangle corridor;
Large room layouts and with some toilet areas and ancillary rooms;

**Attic spaces: 215 sqm**
East block attic space with dedicated dog-legged stairs access and two original dormer windows;
North block attic area accessed by and split by the secondary historical stairs into space divided into cellular bedroom units with modern partitions and doors, and an unused attic space with exposed parts of the queen-post trusses within.

**Courtyard: 480 sqm**
Landscaped (overgrown) courtyard with modern hard landscaping features and grassed areas. Three double-door assess points from the building, at north, south and east (modern extension) blocks.

**Grounds**
Convent building is set in mature landscaped gardens with various detached school related buildings. Relevant site area for the proposed works includes the convent, gatehouse, graveyard to the north with some modern school buildings adjacent.

Detailed descriptions
The following descriptions outline the internal and external fabric of the buildings and curtilage. The descriptions focus mainly on the historical parts of the building, i.e., the 1860s and 1880s blocks.
Note: In the report the term 'historical', in relation to existing fabric, will be used to describe fabric which was built/fitted in 1860s and subsequently in the extended building c.1880s. Later fabric may also be described as historical but the term will not relate to modern interventions which may not contribute to the historical, social and architectural significance of the building. Similarly, the report will detail some of those parts of the buildings and site which are of limited significance.

**Roofs**
Pitched slated roofs on a H-shaped plan centred on pitched (gabled) slate roof with clay ridge tiles. Timber queen post roof trusses. Fibre cement (possibly containing asbestos) slates have replaced the original natural Welsh slates at the most of the roofs on the least visible sides. Timber dormer windows (2no.) and timber roof windows (5no.). Monopitch lean-to roof sections at ground floor corridor areas at original (Goldie 1860s) blocks.
Modern extension with felted flat roof and small parapet sections of pitched roofs with fibre slates.

**Chimneys**
Tuck pointed snecked limestone chimney stacks on chamfered cushion courses on tuck pointed snecked limestone bases having stringcourses below chamfered capping supporting terracotta pots.

**Gable copings**
Cut-limestone "slated" coping to gables on drag edged tooled cut-limestone corbel kneelers with Cross finials to apexes; including copings at two gable fronted dormer windows.

**Rainwater goods**
The historical part of the convent was constructed in two phases (a third phase of modern construction was carried out in the 1970s at the northwest corner).
The first phase in 1867 was extended in the 1880s strictly in accordance with the original detailing throughout except for slight differences to the external and internal fabric, including the use of square cast iron rainwater pipes with associated brackets, in lieu of the original round pipes.
Most of the original cast-iron downpipes survive, retaining Maltese Cross-embossed cast-iron hopper-heads and round and square profile downpipes.
The cast iron gutters were almost completely replaced with aluminium seamless gutters in the 1980s. Some new aluminium downpipes were also added. Small sections of original ogee shaped cast-iron gutters, surviving at the exterior of the chapel apse and the side entrance porch to the chapel. The original gutters on the Apse are supported by stone corbels. These small sections, totalling 15m run in 4 no. segments (see drawings below) are wider than the seamless gutters. The gutters are a simple ogee shape with a flat cast iron bracket cantilevered from the wall. Approximately 50% of the original brackets have survived.

Most of the gutters have been replaced with aluminium gutters, and most of the new gutters rest on surviving original cast-iron gutter brackets.
The detailing of the cast iron hoppers and downpipes show slight variations between the Goldie building and the later Byrne extensions. The original (Goldie) downpipes are round in profile, whereas the later Byrne extensions have square profile downpipes.

**Attic spaces**
Attic space of north block is accessible. The accessible spaces are divided by the original secondary stairs and includes the attic area above the original (Goldie) northern block, with modern sleeping accommodation to the east and an empty attic area (previously used for storage), to the west. The attic areas are within the queen post truss construction, with the tie beam supporting the attic floor. Part of the northern attic space has exposed truss members, inscribed with early graffiti in pencil.
Part of attic space of western block is accessible via stand-alone access stairs at WC area at north end of east block.
The northern block attic space has two original dormer windows, while the eastern block attic space gas modern roof lights.

**External walls (external side)**
Tuck pointed snecked limestone walls on drag edged tooled cut-limestone; chamfered cushion course on plinth with drag edged tooled hammered limestone flush quoins to corners.
Variations of limestone detailing at window and door surrounds:
Pointed-arch central door opening approached by two tooled cut-limestone steps, drag edged tooled cut-limestone block-and-start surround having chamfered reveals with hood moulding over on monolithic label stops framing glazed timber panelled double doors having stained glass overlight. Pointed-arch window opening (first floor), drag edged tooled cut-limestone block-and-start surround having chamfered reveals with hood moulding over on monolithic label stops framing storm glazing over fixed-pane fittings having stained glass margins centred on leaded stained-glass panels. Cusped window openings in bipartite arrangement (ground floor) with dragged cut-limestone engaged octagonal mullions, and drag edged tooled cut-limestone block-and-start surrounds having chamfered reveals framing one-over-one timber sash windows. Shouldered square-headed window openings (first floor) with drag edged tooled cut-limestone block-and-start surrounds having chamfered reveals framing two-over-two timber sash windows.
The original lime mortar pointing at the stonework has been replaced with cement-based extruded-joint pointing.

**Windows**
Predominantly original timber sliding sash and fixed pane windows in various sizes and formats as shown on drawings. Single glazing throughout with historic glass panels on most of the windows.
A small amount of PVC windows has replaced original sash windows.
Some windows e.g., to the Chapel, have brass framed opening sections and brass ironmongery.
Original fixed-pane fittings having stained glass margins centred on leaded stained-glass panels survive behind storm glazing. Stained-glass leaded windows survive at the chapel apse rose windows, the chapel building, and over main and secondary entrance doors, all surrounded by cut limestone framing.

**External doors**
Seven sets of external timber doors survive, mostly original doors and some containing patterned engraved glass sections:
Main entrance (East elevation), with leaded glazed panels;
Secondary entrance (East elevation);
Secondary entrance West elevation);
Chapel (public) entrance (West facing door on South elevation);
Entrance to the sanctuary (East facing door on South elevation);
Entrance from courtyard (West elevation of courtyard);
Entrance from courtyard (East elevation of courtyard).

**Stairwells and internal steps**
Two main timber historical stairs survive, both appear to be constructed as part of the original (Goldie) buildings of the 1860s.
For the purposes of this report the stairs adjacent the chapel will be deemed the 'main stairs' while the stairs at the northern block will be deemed the secondary stairs.
A further stairway exists in the modern 1980s extension.
Both stairs are timber with matching details including (partly exposed, with carpets to centres) tapered treads and varnished timber string courses, guardings, handrails and balustrades, with matching carved details at balustrades and newel posts.
Stairs at original north block continues to roof space.
Timber steps (5no. carpeted) at level change at rear of chapel, at steps and at changes in level each side, with varnished solid timber guardings and ornately carved newel posts.
Steps at Chapel public gallery is a doglegged stairs with short flights, with modern timber hand railing and guarding.
Attic stairs (stand-alone) at first floor, north end of east elevation, timber stairs with two (90-degree dog-leg) flights, timber balustrading and detailing.
Carpet finish to main stairs with linoleum finish to second stairs.

**Ceilings**
Original lathe and plaster ceilings mostly throughout with sections of modern plasterboard ceilings, all painted. Some simple plaster mouldings to the larger rooms, mainly at ground floor.
Tongued and grooved timber cladding at main entrance lobby (east elevation break-fronted entrance) and the prayer room immediately over the lobby at first floor.
Timber panelled ceiling at chapel with square lattice layout of timber sections on exposed timber beams. Panels infilled with modern wallpaper painted to match the walls.
Tongued and grooved painted timber boarding on painted exposed ceiling joists and painted exposed joists adjacent, to some corridor ceilings.

**Internal walls (including internal side of external walls)**
Lime rendered solid masonry walls to interior of external walls and to internal masonry walls, (some walls may have later cement render finish).
Lathe and plaster partition walls.
Modern plasterboard partition walls.
Timber clad partition walls.
Timber clad walls at one main room at first floor.
Some dry lining to external walls and elsewhere, with possible services to the rear. The dry lining is only up to approximately 1m high on some main corridors, and is approx. 50mm deep.

Some internal walls have modern tiled finishes including main kitchen and sanitary facilities.

**Internal masonry features**
Chapel with exposed timber roof construction on cut-limestone thumbnail beaded corbels, and pointed-arch chancel arch framing carpeted cut-limestone stepped dais to sanctuary.
Stone water fonts at chapel and at chapel side entrance porch.
Carved stone low columns at the chapel apse.
Plaster skirtings to certain areas.
Plaster mouldings with simple designs to some of the main rooms.
Modern tabernacle in modern plastered protruding wall section to rear of chapel apse.

**Internal doors**
Historic internal timber doors and architraves.
Some historic ironmongery survives including door knobs, locks and hinges.
Some modern doors at modern refurbished area including first floor at original boarding school block (the block was a separate building to the north in Goldie's original building).

**Internal joinery**
Carved timber surrounds to door openings to remainder framing timber panelled doors with carved timber surrounds to window openings framing timber panelled shutters.
Modern timber wall panelling at chapel walls with hessian panel insets.
Moulded timber ceiling grid at chapel ceiling with painted paper insets over original papered insets.
Timber vertical sheeted partitions including at timber cubicles and timber commodes at first floor; also used other modern partitions and wall linings.
Timber panels at altar below stained-glass rose windows.
Timber skirtings to most rooms and areas.
Various carved timber detailing at steps, stairs and guardings.

**Internal first floors**
Timber first floors with timber floorboards above and (generally) lathe and plaster ceilings below. Some floors have been covered with carpet or PVC floor coverings.
Some plaster mouldings to ceiling borders of main rooms.

**Internal ground floors**
Raised timber floors throughout with timber floorboards (generally) on timber joists on masonry stub walls on sub-floors. Depth of subfloors varies.
Chapel has carpeted plywood layer of flooring over the original hardwood parquet flooring, with raised areas to rear of the Chapel, and to public gallery, and single step along each side of the main nave space, possibly relating to the original seating layout (no longer existing).
Ceramic tiles to corridor areas on raised timber floors.

**Internal first floors**
Timber floors, likely pitch pine boards, on timber joists throughout historical blocks. Mostly covered with modern carpets, PVC or linoleum floor coverings.

**Fireplaces**
7no. fireplaces survive at ground floor, and 5no at first floor. 12no. fireplaces survive in very varying materials, designs and sizes. All fireplaces are all of good quality. Most remain open.

Fireplace at kitchen at ground floor has been closed up as part of the modern refurbishment of the kitchen.

**Kitchens**
The main kitchen which includes a storage area is located at ground floor in the historical block (west) and adjacent the single door entrance to the modern 1980s extension, on the west elevation. A large room been altered to include new walls, partitions and screens with modern tiling and other modern fixtures and finishes. A substantial array of modern stainless steel catering equipment survives in the room. A substantial fireplace survives and has been closed up. It is likely that the room was the original kitchen area as it is immediately adjacent to, and has direct access to the main hall.
A modern small kitchenette/tea station area was added at the end of the corridor on the first-floor southern block of the historical building.

**Lift**
The lift is a modern addition adjacent to the main stairs, and may serve as access between floors for person with or without disabilities. The structure is a steel construction painted white and is structurally independent of the historical fabric but interferes with the fabric at its base, sides, first floor and first floor ceiling.

**Furniture**
A small amount of furniture survives, and is located in the chapel area. The furniture is relatively modern and of ecclesiastical design, and consists of church seating.

**Toilets, showers bathrooms and other wet room areas**
At ground floor the sanitary facilities comprise a number of small WC rooms and are confined to the modern 1980s extension. The facilities are modern in design with tiled block walls and modern doors and fittings.
At first floor the sanitary facilities located in the modern extension comprise three WC rooms and two shower rooms.
Facilities in the historic parts of the first floor comprise two separate areas with WCs and bath areas. The first-floor eastern block facilities include a bathroom with shower area and two rooms with timber commodes, all of the rooms having timber partitions and panelling and all of which may be considered historical fabric. The first-floor western block facilities include a bathroom and two modern WC rooms, with modern tiled and painted finishes to walls.
A sluice room (first floor) and a utility room with hot press room adjacent (ground floor) also exist in the historical parts of the building.
The sanitary areas are all located on external walls and discharge directly to the external areas

**Internal plumbing and drainage services**
Most of the WC and sanitary facilities are located in the modern extension but some internal plumbing and drainage pipes exist in the historical parts of the building, at the refurbished toilets in the west block, the early WC (commodes) area in the east block ) and the kitchen areas. The drainage works comprise pipes from sanitary areas of historical, early and modern pipework and associated fittings. A number of sanitary items were located in the cellular bedrooms at first floor and have been ripped out, and some redundant early and modern plumbing drainage services exist within the fabric.

**Heating services**
An oil-fired central heating system provided heating to most of the building, with steel piping and radiators. Some older steel pipes are also present and were in use with the modern oil-fired system.
The boiler room is located in the modern 1980s modern extension block, with double external doors, and containing an oil boiler and associated equipment.
A separate heating system serves the chapel and the sacristy.

**Electrical services**
General electrical services throughout with steel and PVC conduits, concealed and surface wiring and various fixtures and fittings. Modern upgrading of the electrical services has taken place, but some early wiring, switches, sockets and other fixtures and fittings also survive, most of which may have been decommissioned.
An electrical services room exists under the main stairs.

**Lighting**
Modern electric lighting and switches with some surviving early fixtures and fittings survive including glass globe fittings.

**External areas around the convent**
All immediate external areas as the convent building have hard-top (tarmacadam) finishes. The main external areas are to the north, west and the east of the building and these function as car parks and include vehicular road access around the whole building.

The external area to the south of the building includes a curving access road, with small grassed areas providing some relief close to the building. A further open area of grass lawns and mature trees extends to the south and east of the building.

Historic limestone steps to main entrances at South and East elevations and at side entrance to porch at Chapel.

Rubble stone walls along McDermott St. approx. 600mm thick and 2.8m high.
Original boundary rubble wall with semi-circular limecrete cappings and remnants of roughcast lime render. The wall levels lower and splay inwards at the entrance area.
The OS 25-inch c.1890 map shows a simple opening in the wall. The 6-inch last edition OS map shows a recessed area at the entrance, which may correspond with the existing recess.
The splayed recess walls lower in height on the town side (east) where the wall is rendered.
The recess wall at the west side comprises cast iron railings with pedestrian entrance gate, part of the overall entrance gates and railings.

The site includes the refurbished graveyard to the north of the convent. This is a long rectangular space with modern grave stones on each side and hard landscaping of gravel and concrete paving, central concrete path and grassed area at rear. Large crucifixion statue central to rear wall. The graveyard is surrounded by stone and block walls. A steel palisade fence is located behind the northernmost wall with a gap between the fence and the graveyard wall. Access to the graveyard from the convent is via open areas of tarmac hard top finish and concrete paths.

**Gates and railings**
Modern galvanised steel railings with half inch square pickets with spear-top railheads; Semi-circular topped pedestrian gate inserted in frame;
Modern galvanised steel bi-parting main gates with half inch square pickets with spear-top railheads; Free-standing railing section inside pedestrian gate (safety barrier to hamper egress); All ironwork painted black.

**Courtyard**
The courtyard within the building's quadrangle is an open area of 485 sqm. The area is fully covered with overgrown grasses, brambles and weeds, ivy and some small trees, a masonry centrepiece, overgrown concrete paving, and some gravelled patches. Underground services with inspection lids.

**External services**
External services comprise cast-iron and PVC foul sewage pipes and soil vent pipes, and storm water pipework at external elevations and underground; Drainage to public sewerage system. Various electrical conduits and pipework. Modern lighting, alarm and CCTV pipework in surface mounted pipework for the most part.
Various inspection covers are service runs.

**Modern (1980s) extension**
The modern extension essentially closed off the central area and created the building as a quadrangle with an internal courtyard. The extension was formed at the southwest corner of the building and has westward and southward orientation. The building is of concrete block and concrete slab construction with special finished 'fair-faced' concrete blocks at the external elevation (Forticrete), which were designed specifically for non-rendered block applications. The building has flat roofed asphalt finish to the main structure and fibre-slated pitched roof sections, with raised parapets at the courtyard elevation.
The extension was designed with modern ceiling heights so there is a substantial drop in floor level at first floor, from the original convent floor levels, and this is achieved by a short flight of steps at each end of the extension corridors. The corridors narrow substantially at the extension. The ground floor is 300mm above the existing convent ground floors and resulting a short ramps at each end of the corridors. The building is of modernist and functional design and contrasts with the historical architecture. Fenestration design and detailing show references to the fenestration at the original convent elevations.
The plan of the extension is effectively L-shaped and includes a central corridor which became an extension of the existing convent corridors, and thus provided a continuous looping circulation are through the convent on both ground and first floor. The first-floor level is lower than the convent first floor level and therefore single fight stairs exist at both ends of the extension at the junctions with the historical fabric.
Accommodation comprised large functional (possibly) teaching rooms at ground floor with large kitchen area with separate entrance, a stairwell and ancillary rooms. First floor accommodation comprised a number of large rooms (possibly teaching or residential purposes) with further ancillary spaces including the main set of sanitary facilities in the building. The extension building may be deemed to have limited significance, and requires substantial repairs, but it may be appropriate to re-use the building as part of the long-term proposals for the convent.

**Gatehouse**
The gatehouse immediately adjacent the main site entrance is a modern blockwork constructed single-story small rectangular building of modern domestic construction and detailing. The building is 3-roomed and contains living space, kitchen area and toilet facilities. Concrete tiled roof on timber A-roof trussed construction on painted and rendered block cavity walls; timber sash windows; aluminium facia and soffits and raingear. The gatehouse building has limited significance or special interest to the convent, however a (removed) gatehouse arrangement was present in the original development of the convent site. The function and presence of a gatehouse on the site is important, providing a visual and tangible connection to the public road, marking a transitional point between McDermott St. and the convent site, as well as security and welcome.

**16. Modern Interventions at the Protected Structure**
Interventions and additions since the construction of the historical blocks (1860s building and 1880s extension) include:
- Replacement of some doors and windows with modern timber doors and windows;
- Refurbishment of chapel and other areas, including to first floor kitchen, some original sanitary facilities and ancillary functions such as sluice rooms, resulting in loss of pre-Vatican II fixtures such as reredos, original tabernacle, fixed timber pews and various other ecclesiastical and general decorations and fixtures;
- Refurbishment of first floor area which included removal of internal walls and refitting the first-floor area with modern partitions, doors, fixtures, fittings and roof windows (at original Goldie block to the north which served at first as a boarding school);
- Fibre cement slating to most of the convent roof, with aluminium and pvc rainwater gear;
- Electrical power and lighting in lieu of original gas lighting;
- Mechanical and electrical services throughout the building;
- Heating services;
- Installation of lift;
- Upgrading of sanitary facilities.
- Extensive tarmac finishes to external areas around the convent;
- Landscaping works to courtyard;
- Construction of the 1980s extension at the southeast corner of the building.
- New modern gatehouse construction.

**17. Issues of Vulnerability**
Threats to the significance of convent, gatehouse and relevant site areas include:
- Severe water ingress (ongoing), causing decay and damage at roofs, walls, ceilings, floors and other internal fabric;
- Overgrowth of the courtyard area;
- Lack of daylighting and ventilation (exacerbated by the covering up of windows and doors) (ongoing), causing dampness, condensation and mould growth, dry rot and wet rot;
- Lack of maintenance and repairs resulting in ongoing deterioration of historical fabric and the risk of severe damage;
- The lack of use of the buildings;
- Issues of vandalism and theft.

**18. Outline Briefs**

The following are summaries of the briefs on which the heritage impact assessment below and the attached draft proposal plans are based:

A. First Phase Proposals brief

- Re-opening of the building for public use;
- Urgent repairs to roofs, porch, windows and any other areas on ongoing damage;
- General refurbishment to a functional level for the relevant areas;
- Re-use of the chapel for religious services;
- Use of the chapel for public events and functions;
- Use of the Main Hall for various public functions including meetings and dining;
- Re-use of part the existing kitchen with new kitchen equipment to cater for re-heating of food;
- All required sanitary facilities;
- All required fire safety and universal access works;
- New electrical and heating works;
- Use of the courtyard.

B. Long-Term Proposals brief

- Re-opening of the overall building for public and other uses;
- Repairs restoration and new works to achieve the brief items below, and to cover the entire floor areas and relevant site areas;
- New electrical, heating, ventilation, fire alarm, PV arrays and sprinkler systems;
- New sanitary facilities;
- New drainage systems;
- New insulation;
- New fire rated measures throughout;
- New universal accessibility measures throughout;
- Reception Space/ Office management space for Ballina Convent Regeneration CLG who will manage the campus, bookings and public tours;
- Re-use of the chapel for religious services;
- Use of the chapel for public events and functions;
- Use of the Main Hall for various public functions including meetings, dining, 'town hall' type space;
- Dedicated meeting rooms for certain community-based organisations;
- Re-use of the existing kitchen and associated rooms;
- Museum function recording the convent history and the Sisters of Mercy, including animating the corridors, rooms and offices with pictures and audio-visual displays with dedicated rooms as focal points;
- Recording studio spaces including a separate space for podcast recordings and conversations;
- Fleadh Group spaces: A dedicated space for traditional Irish music teaching and practising;
- Office spaces for a variety of social enterprises and local development companies who would benefit from dedicated office space while also having the ability of working collaboratively for the betterment of the community and society; for additional emerging charities and not for profit social enterprises that will require space that we would like to support if and when the demand arises;
- Counselling spaces;
- Re-use of the first floor for temporary residential accommodation with mix of communal and cellular bedrooms, communal sanitary and other facilities to include for professionals,

visiting artists, youth groups and other building users; possible hostel-type accommodation;
- Re-use of Gatehouse as café, run as a not for profit, the intersection of community and public interaction with the wider convent campus, serving general public and residents of the area as well as the groups & organisations that will occupy and use the convent campus;
- All sanitary facilities as required by the proposed uses;
- All ancillary spaces as required by the proposed uses;
- Refurbishment of the quadrangle courtyard as a green space with outdoor seating; vegetable garden; sheltered areas;
- Works to the grounds including the introduction of green spaces with nature-based drainage solutions;
- Creation of loop walk thought he grounds to include via the refurbished graveyard.

## 19. Methodology: Condition of Fabric and Proposals for First Phase Proposals and Long-Term Proposals

Note 1: The following methodologies provide summarised information and guidance about the conservation processes required and aid in compiling the pricing document below, and should not be used as specifications or for pricing. Any new works including urgent repair works should be designed and specified by the appropriate consultants.

Note 2: **'First phase proposals'** are initial proposals for re-use of the building in the short term, and include extended methodologies some for urgent works.
Urgent works to roofs, rainwater gear and windows are detailed in extended methodologies below, to show the detail required.
**'Long-term proposals'** refer to the full re-use of the building and site.

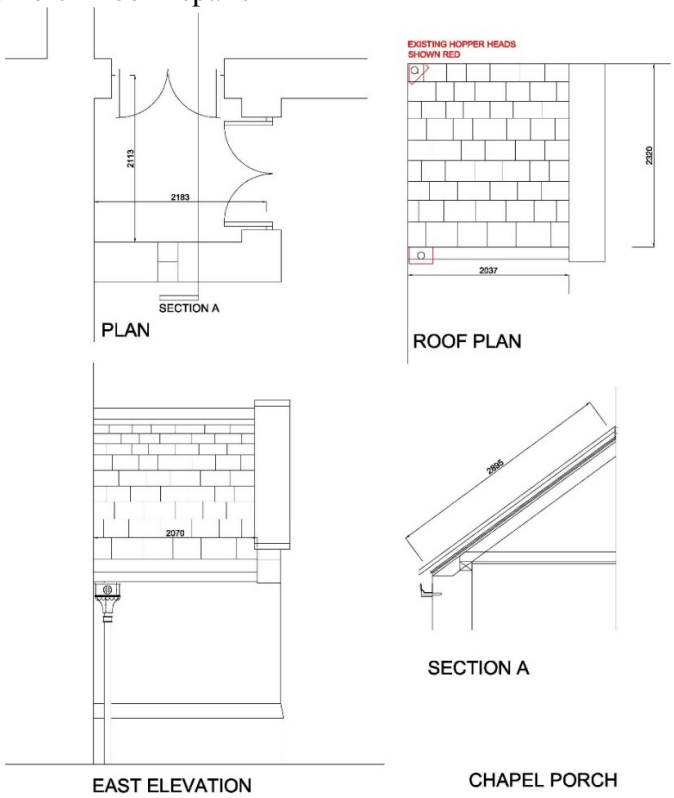
Note 3: *Maintenance and Repair of Older Buildings* - Historic England 2021:
***Repair*** *can be defined as "work beyond the scope of maintenance, to remedy defects caused by decay, damage or use, including minor adaptation to achieve a sustainable outcome, but not involving alteration or restoration" (Conservation Principles 2008). Repair is normally carried out to sustain the significance of the building or place.*
***Restoration*** *is the returning a building to "a known earlier state, on the basis of compelling evidence, without conjecture".*

**Roofs**
Condition:
(Inspection was generally limited to external views).
No visible extent of sagging suggests main roof structural timbers in good condition.
The porch at the chapel has severe water ingress at the roof and is detailed below.
Exposed queen post roof trusses in 2nd floor area are in good condition. A patch of severe water ingress has occurred in this room due to a valley leak over.
Some sagging has occurred at the side entrance to the (public) gallery at the main chapel. This is due to severe water inundation to the small lobby roof, caused by a blocked gutter over, and saturation of the walls onto which the mono-pitched lobby roof timbers connect.
Original Welsh natural slates that survive are in good condition, some slippages have occurred and the slippage rate is rising. Fibre cent slates, likely to contain asbestos, cover most of the roofs.

Modern extension roof sections roofing felt and fibre slating and new sections Slates and felt throughout in poor condition.
Lead work at valleys and flashings were not accessible, some degraded sections visible.
Modern roof lights at second floor in fair condition.

First phase proposals: The following is an extended methodology for urgent works to show detail required.

- Repair slipped slates and lead valleys where required:
  Some slipped slates are evident on the main roofs and all are quite isolated. Every effort must be made to reuse the slipped slates in each position. If the slates are beyond repair a slate to match the existing in size and provenance, colour, texture and thickness should be sourced. Some local reputable sources may provide similar slates as is likely due to the small amount required. It is also possible to source the original slate quarry and have new slate made up for the purpose, but this may not be necessary or feasible. There are alternative methods for re-fixing slipped slates and agreement will be made with an experienced conservation roof-work tradesman and architect for the ideal solution depending on the practice of the tradesman. Slipped slates can be readily re-fixed by the use of lead or stainless-steel hooks, or using proprietary fittings or secret fixings.
  All lead work to be checked for damage and immediate repairs carried out accordingly.
- Porch roof repairs:
  Final methodology and extent of works required for the detailing of the re-roofing works to the porch cannot be known until the roof is opened up during the works. The conservation architect to record the existing details and design the repair works. The roof works to be carried out by a tradesman experienced in similar conservation roof and slate work.
- Chapel Side Porch Roof Repairs




*Chapel Porch Plans*

- At chapel side entrance porch, repair roof timbers only where required with new timbers scarf jointed into existing and re-slate the mono-pitched roof using existing slates. The small roof at the chapel porch has been severely damaged due to water ingress from overflowing gutters and hopper head over. The walls against which the roof connects have been saturated and thus water has ingressed behind the existing flashing and caused severe dry rot and wet rot to the timber roof structure, causing collapse of the porch ceiling and some of the floor of the porch and chapel below. The application extends to arrest of the water ingress above (see sections below) and the reslating of the porch including repairs to the roof timbers.
- Slate removal (chapel side entrance porch):
  The porch retains a portion of the only surviving cast iron gutter at the convent (the remaining surviving sections are immediately adjacent on the apse elevation). Remove the gutter, hopper heads and downpipes (above and below) for refurbishment (see below). It is intended, if possible, to preserve and reuse all slates in the exact same positions. The roof to be photographed prior to commencement of works to allow for correct reinstatement and all slates numbered. Extreme care therefore must be taken when removing the existing slates. All slates (approx. 65 no. slates overall) to be reused should be sorted and separated in accordance with their sizes and positions on the roof to be ready for relating, and the separate batches should be stored vertically on edge and in batches of maximum 20 slates. Store slates on scaffold to avoid double handling.
  Conservation architect to inspect all slates once removed. Samples of slate to make up for broken or severely denuded slates to be agreed with the architect before use, and will match existing as close as possible. Slates to be laid to exactly match the original laying pattern using slates of the same shape as the originals. This includes number of courses and their sizing.
- Repairs to roof timbers (chapel side entrance porch):
  On initial inspection the roof timbers are partially saturated but do not appear to be completed denuded by wet rot. It is likely that some rotting has occurred, and therefore the rotting parts should be replaced. It is essential to preserve as much of the original timbers as possible. The roof structure is a lean-to format of 120 x 50 softwood pine rafters 400 centres.
  Remove all original battens. Remove all nails from existing rafters. Fully inspect all roof timbers. Cut away any rotten timber sections and splice in new rafter portions into existing rafters. Only clearly rotted or loose timber should be removed to retain as much of the historic timber as possible. Exact details of splicing to be agreed with conservation architect. Any new timber should match existing material and be free of sapwood so that the physical and structural capabilities of the timber are compatible. New timber shall not be in contact with wet masonry and should be isolated with a damp proof course.
  Scarf joints may be used, continuing the rafter on the same plane with sufficient overlap of the old and new sections or a new rafter end may be fixed using a splice or ‘sister’ section at the side to fix the new and the old, (this is often carried out where the rotting has occurred over the end wall and beyond the wall plate, or may extend up over the wall plate with a birdsmouth cut). Splices shall normally be a minimum of 750mm long, and fixed with galvanised round head wire nails 6no per spliced rafter. Remove any rotted wall-plate sections also and refit new sections using simple half-lap joints.
  Apply appropriate timber insecticide and fungal attack treatment.
- New battens and felt (chapel side entrance porch).

Fit new treated sw battens to match existing, on new breathable felt layer, laid strictly in accordance with the manufacturer's recommendations. Battens to match existing in size of battens and positions on rafters. Ringed stainless-steel nails to be used for all new battens.

- Flashings (General)
  Check condition of all existing lead flashings. On inspection the flashings appear to be in good condition, but it may be necessary to replace with minimum code 5 lead flashings to match existing sizes and detailing exactly. Existing leadwork appears to be of good quality with sufficient counter flashings and detailing. However, some or all leadwork may need repair or replacement following closer inspection. All care must be taken when removing existing flashing to avoid damage to stonework, especially in saturated areas. The raised stone copings on the north wall may also require careful removal and refitting of the flashings and a suitable DPC layer underneath if flashings have sufficiently denuded. Counter flashing shall be 125mm girth with one fold, and fixed in location using lead wedges at 300mm centres. Fill joints with lime mortar mix 1:3 NHL 3.5 and clean sharp sand or to match existing mortar make-up (note that the convent has been fully repointed with cement-based mortar, so any new mortar, for flashing areas that have been cemented, will require further study into the original mortars used, some evidence of which may survive elsewhere).
- Slate re-fixing: Any debris at underside of slates to be re-used must be removed with stiff wire brush and hosed so the slate can sit properly when re-used. Re-fix all slates as per original layout, using copper slate nails with large heads in newly formed holes if required, using the appropriate slating hammer.
- Inspect existing ventilation available at eaves and ensure continuing ventilation on future. A proprietary hidden eaves vent may be appropriate if sufficient air flow is not evident on the existing construction.
- Make all necessary repairs to modern 1980s extension roof, including testing of slates for asbestos; carry out all repairs necessary to arrest water ingress at the extension roofs; removal of all slates with asbestos present; reslating the sloped roof parts; repairs to flat roof areas.

<u>Long-term proposals:</u>

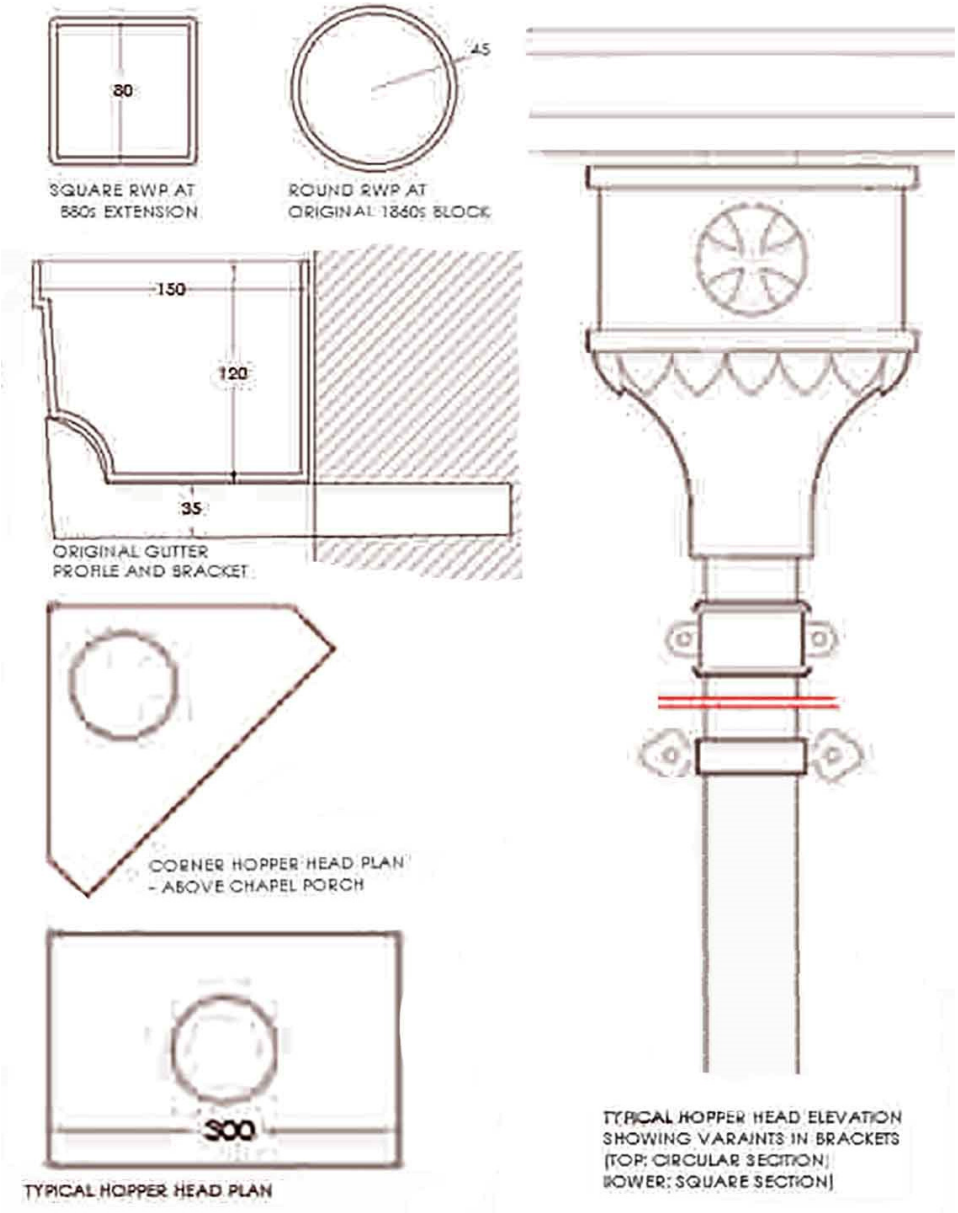
- Carry out repairs as required e.g. replacement of timbers only where required with new timbers scarf jointed into existing.
- Replace all fibre cement slates with new felt, battens and, slates with breathable felt, and appropriate natural slates to match original slates.
- Inspect and repair all leadwork where required.
- Inspect and repair stone gable copings where required.
- Replace all modern roof lights with triple glazed roof lights, at the attic areas.
- Construct new flat roof and slated roof coverings to 1980s modern extension roofs.

**Rainwater goods**

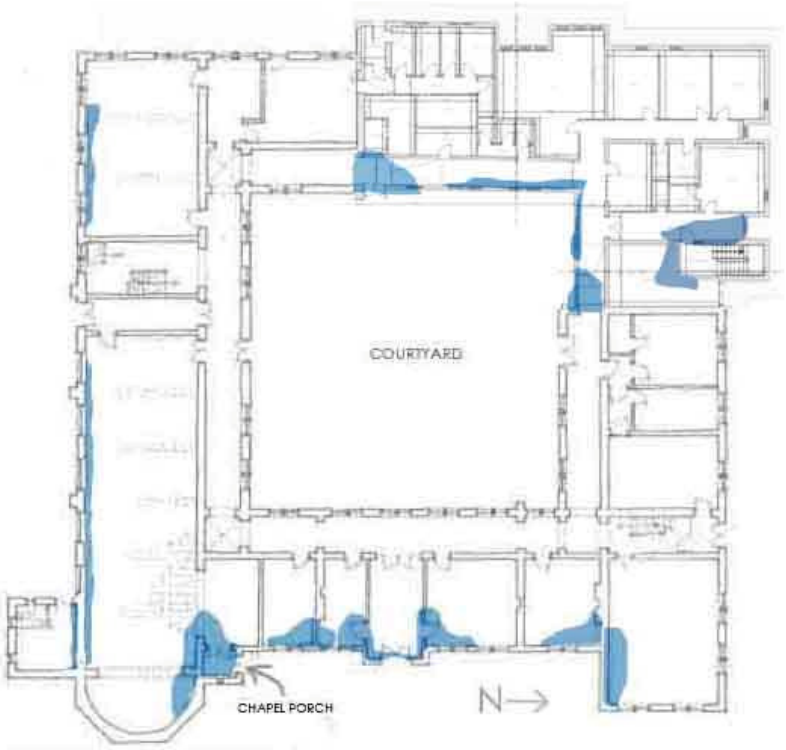
<u>Condition:</u>

Surviving cast iron gutters are in good/fair condition. Small section survives at chapel apse and chapel porch;
Surviving gutter brackets appear in good/fair condition with a number of missing brackets;
Surviving hopper heads generally in good/fair condition;
Surviving downpipes generally in good/fair condition with some severe denudation and complete loss of fabric at certain downpipes;
Surviving downpipe brackets in fair condition generally with a number of missing and some replaced modern brackets;

Surviving downpipe collars in fair condition generally.
Details of existing cast-iron rainwater gear and plans of building below (using plans from *Martin Henihan Thesis*), with areas of existing severe water ingress shown blue.

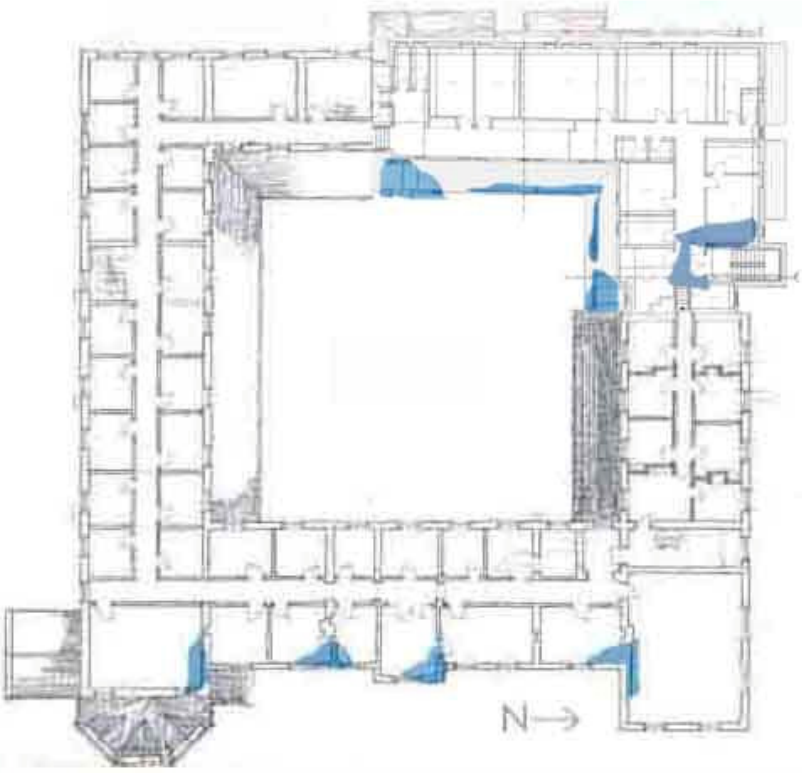



*Existing Rainwater Gear Details*



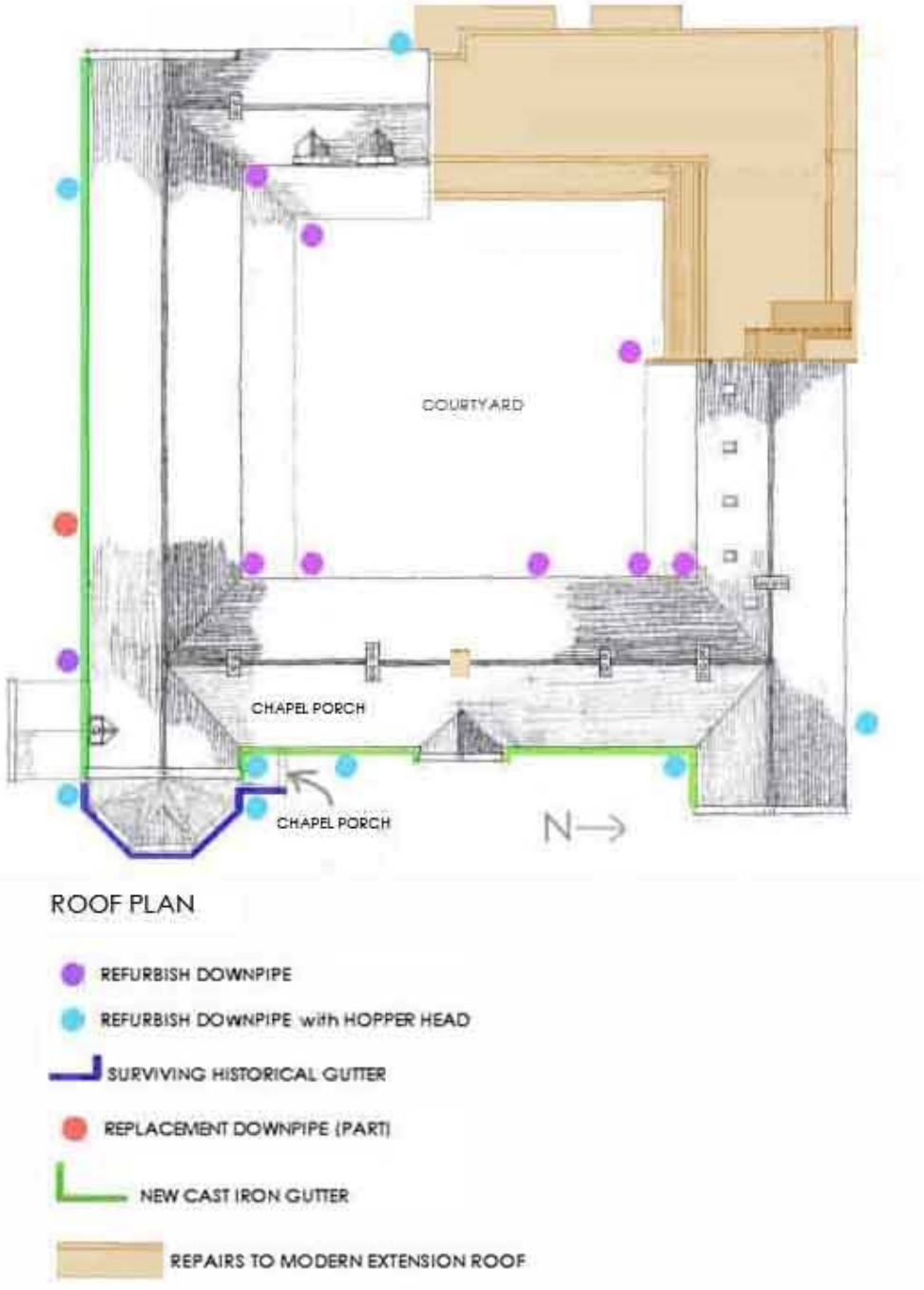

GROUND FLOOR PLAN

SEVERE WATER INGRESS




FIRST FLOOR PLAN

SEVERE WATER INGRESS




First phase proposals: The following is an extended methodology for urgent works to show detail required:
Most of the recent water ingress was due to overgrowth and cleaning and maintenance will arrest the problem. The short-term proposals however include for replacement of the seamless gutters with new cast iron gutters at the east elevation where the aluminium has severely denuded and most of the water ingress has occurred. Cleaning of this gutter is not sufficient to arrest water ingress.

- Clear vegetation and debris build-up from all rainwater gear, irrespective of whether the gear is part of the first phase repair proposals. (Some clearance has been carried out for the purposes of this report).
- Prior to cleaning inspect closely all gutters and downpipes for signs of overflowing, leaks, cracks, breaks, holes and other causes of water spillage onto the walls and ingress to the building.
- Clean out all gutters, downpipes, gulleys and ground drainage fully prior to the rainwater gear works. Rod all stormwater runs once cleared. Establish the original stormwater drainage layouts, any storage tanks and final water destinations if possible and create record drawings. Care must be taken to avoid further water ingress to the building when flushing out the rainwater gear.
- Surviving cast-iron gutters to be dismantled, examined and refurbished where required.
  Refurbish relevant surviving cast iron gutters, cast iron hopper heads and downpipes (external (non-courtyard) elevations):
  Cast iron gutters: East elevation at chapel porch and chapel apse: 14m length
  Cast iron hopper heads: North, east, and south elevations: 8no.
  Cast iron rainwater pipes with associated fixings: 9 no. total approx. 45m length.
  Remove and examine the surviving cast iron gutters, hopper heads and downpipes. Carefully remove the brackets without damaging the existing walls and examine for potential re-use if possible.
  Clean the cast iron by hand using chisel (if required) wire brush and sandpaper to remove all paint and jointing compounds. Care should be taken not to damage or score the surface of the ironwork. It is essential to clean off all rust and special attention should be made at vulnerable points such as joints, collars and fixing points.
  Provide replica cast iron gutter and downpipe brackets/collars if the existing connections are beyond repair.
  Remove all gutter bolts, nuts and washers. Apply one coat of bituminous primer and 1 coat of bituminous paint to internal surfaces of gutters prior to re-installation. Re-install with new calked joints and new stainless-steel counter sunk machine screws for connecting the gutters if required.
  Any defective gutter joints should be re-sealed with an oil putty to stop leaks. Any small holes should be filled prior to painting to prevent water seeping in and getting trapped. Modern polysulphide mastics can also be used as an effective alternative to traditional fillers and final agreement must be made with the conservation architect. Most of the rainwater goods are suffering from minor corrosion, but are otherwise sound and should have all their rust removed (by wire brush and sandpaper) prior to being re-painted. Existing sound paint should be roughened with sandpaper to help the fresh coats adhere well. Care should be taken not to damage or score the surface of the ironwork
  Prior to painting the surfaces should be clean and free from corrosion, dirt and grease. Some modern paints may not be compatible with the original paint; therefore, it may be necessary to seek the paint manufacturer's advice before proceeding.
  Paint type, colour and methodology to be agreed with the conservation architect and must be applied strictly in accordance with manufacturer's instructions.
- Certain sections of the seamless aluminium gutters to be replaced with cast-iron gutters to match existing where required.
- New cast iron gutter sections at east elevation:
  Replace sections of aluminium seamless gutters with cast iron gutters to match original gutters. Include relevant end pieces and corner pieces.
  To east (main entrance) elevation: Provide total of 32m including 4no. corner pieces and 4no. end covers.

Carefully remove all relevant aluminium seamless gutter sections and ensure that no damage to the historic fabric occurs. Carefully inspect and remove if required, for refurbishment, each surviving cast iron bracket. Agreement on site with conservation architect required for methodology of removal of gutters and brackets.
Supply like-with-like gutter sections with corner pieces and end closers. Supply the required number of new brackets to match existing. Brackets to be inserted in original positions if possible, using lime mortar in the joints.

- Painting of all new cast iron (prior to fixing): Apply two coats of a zinc-based primer, one methodology to be agreed with the conservation architect and must be applied strictly in accordance with manufacturer's instructions. Paint finish of micaceous iron oxide, followed by two coats of gloss paint. Paint types and colour to be agreed, but to match original paint, likely black.
- Install new cast iron gutters at a fall of 1:60, where shown.
- The cast iron hopper heads and rain water pipes at the relevant elevations will be dismantled, examined and refurbished where required (with part new cast iron rainwater pipe replacements where required). Repair and refurbish the cast-iron fabric as per the gutters repair methodology above. Where a part of a pipe has fallen away or is severely denuded the denuded end should be cut away and a replacement downpipe to match existing should be fixed with a new cast-iron collar to match existing. Replace section of existing cast iron downpipe at south elevation:
- Replace part of rainwater pipe on south elevation with 4m length section and associated bend section and shoe. Cut away denuded section of the downpipe once dismantled. Refurbish the downpipe, and attach new section (lower end) with connection bracket to match existing. Paint as per new gutters above.
- All existing downpipe brackets and collars to be examined and refurbished, and replaced to match existing where required.
- The remaining seamless gutters at the external elevations and the courtyard rainwater gear will be thoroughly cleaned and maintained and it is deemed that no immediate water ingress threat exists in these areas, subject to ongoing monitoring and maintenance.
- The repairs above should be also carried out to all surviving cast-iron service pipes e.g. soil vent pipes etc.

<u>Long-term proposals:</u>

- Carry out repairs as per descriptions above, to all surviving cast-iron rainwater gear.
- Replace all rainwater gear items, i.e., gutters, gutter brackets, downpipes, downpipe brackets and collars, where they have been removed, all to match existing cast-iron fabric details. Ideally any recent PVC rainwater gear and service pipes should be replaced with cast iron gear to match existing or to approved design.

**Windows**

<u>Condition:</u>

The vast majority of the windows are historical and original and are in fair condition. A large number of glass breakages has occurred due to vandalism, and this has led to the windows being boarded up with ply sheeting. The application of the plywood sheeting has been carried out at some of the windows with bolt connections directly into the historical timber frames. The closing up of the windows stops the ingress of light, heat gain, and ventilation into the rooms thus resulting in acceleration of the current problems in the overall interior
(Excerpt from *Heritage Buildings, Increased Rainfall and Climate Change Adaption.* Project submitted to UCD by Martin Henihan, May 2023).

*This boarding up of all windows and doors to all elevations (including those to the internal courtyard) has resulted in major condensation problems throughout the building due to lack of daylight with its natural antibacterial qualities (Holland, 2018) and without the benefits of any solar gain that might be afforded internally. The 13-14-year period since the closure of the convent has seen water ingress and damage, primarily due to the lack of maintenance of the rainwater goods. This boarding up and resulting condensation (and darkness) would seem to have accelerated the damage by creating the perfect conditions for rot and decay to thrive.*

Many of the timber windows also show signs of rotting due mainly to the age of the fabric.
Stained glass leaded window panels survive in certain window opes including the chapel rose windows, and the chapel side windows. The glass is on good condition throughout but some breakages and cracks have occurred.
Some windows include a bordered section of stained glass fixed directly to an external clear glass panel. Windows are generally in good condition, but some breakages, cracks and removal on site has occurred.
Brass framed opening sections and brass ironmongery at chapel windows are in good/fair condition and generally in working order.
Note: There are no trickle vents (natural ventilation vents) in the windows which would allow natural ventilation in accordance with the building regulations.

First phase proposals: The following is an extended methodology for urgent works to show detail required:

- Remove all plywood sheeting from the windows, and avoid any further damage to the historical fabric, in order to allow light, heat and ventilation to resume to the relevant rooms.
- Inspect all windows at relevant areas for signs of damage; water ingress; condition of mechanisms for opening and closing; condition of ironmongery.
- All sashes with broken or cracked glass will be removed for re-glazing. Minor glass breaks at corners to be reviewed with the architect.
- On inspection, no sashes are painted shut meaning no ladders or access machinery will be needed to carry out works.
- Carefully remove all lower sashes from frames and remove to the workshop.
  Extreme care to be taken to avoid any further loss when removing, i.e., if the adjacent pane in the two-pane sash has survived.
  The four staff beads, two horizontals and two verticals, are to be carefully removed intact, set aside, bundled and labelled to go back at a later stage.
  The bottom sash cords are usually held by a clasp or flat head screws, these are removed releasing the sash. This is left aside and labelled.
  Cords are put in knot and left to one side. The parting bead is removed, one horizontal and one vertical, set aside and labelled. Top sash is released by the same method as the bottom, labelled and set aside.
  This process to be carried out the same way for all remaining windows, only remove the number of windows that can be finished in a day so as to not leave any window open for the night.
- Place each sash flat on a bench, putty to be removed using hammer and chisel with care as to not damage the stiles and the intact glass sections. Reclaimed cylinder glass is cut and installed under bed of putty. Apply putty to the perimeter and shaved off using a putty knife leaving a tidy bevelled edge. All waste putty is trimmed and sash is left aside. This process is repeated for the remaining sashes.

- Replacement of broken (clear) glass panes at various historic sash windows with salvaged historic glass sections to match existing:
- A conservation glazing expert must be employed to carry out the repairs to the windows. Conservation architect to inspect quality of replacement glass prior to the works to ensure suitability or to specify alternative glass.
- The replacement glass, whether cutting down exiting glass to smaller sizes (it is unlikely that his opportunity will occur) or cutting reclaimed glass to suit new pane sizes, will require cutting to shape of the existing opes sizes as required. Cutting of old glass requires a sharp glass cutter ideally with oil reservoir.
  The glass should be clean of grease and dust and laid on clean soft surface.
  Avoid cutting too tight to the frame sizes as the frames may be slightly off square, so each pane size should be closely measured before cutting.
  Any 'belly' in the glass should face outwards.
  Large sections of glass that have been removed should be re-used to fit a smaller window, if appropriate, by cutting down the glass piece.
- Any in-situ frames or sashes with rotted sections will be treated on site or in the contractor's workshop as appropriate. Any rot will be spliced out and repaired using traditional methods, reclaimed pitch pine will be used to do any additional repairs. All staff beads will be nailed back using 50mm oval nails, punched and nail holes filled.
- The sashes to be refitted and the process of the taking out the sashes is done in reverse, any cords deemed unsuitable are replaced.
- All repaired windows including on old painted sections and newly spliced sections will be painted with four coats of a suitable oil-based paint system to be agreed with the window specialist, and will depend on the make-up and condition of the existing paint in each case.
- Stained glass sections to be inspected and cleaned. Any sections of broken or severely cracked glass to be inspected and procedures for repairs to be agreed.

<u>Long-term proposals:</u>

- All windows should be refurbished to full working, order including all ironmongery and painted to match original paint colours.
- All stained-glass windows to be fully repaired, refurbished and protected.
- Windows showing signs of rot or other damage including boltholes at plywood fixing points should be repaired in-situ (frames) and in the contractors' workshop (sashes) by a contractor skilled in such works.
- Secondary internal glazing systems should be investigated as an option for heat retention due to the need for retention of the single glazed historic glass in the windows. It may be appropriate in windows requiring full new glazed sections, and in replacement windows (e.g. new PVC windows) to use modern single-glazed or a double-glazed materials system with low U-values.
- Replace any PVC windows with sliding sash windows to match existing.
- All stained-glass windows and sections of windows to be checked for defects which include cracks, broken sections buckling, rusting, leakage, intrusions, loss of glass paint and incorrect pointing. Repair in accordance with conservation methodologies and replace any missing sections of glass, steel, bronze and lead to match existing.
- Fit stainless-steel mesh or ventilated external glass panels to stained-glass windows and elsewhere at vulnerable window locations of appropriate. The choice of security material must be agreed depending on the most appropriate methods and materials for each window.

**Roof Space**

Condition:

- No access was available to the roofspace but assessment from external indicates generally good condition.

First phase proposals:

- General structural survey and detailed inspection to be made of condition of all attic spaces and carry out any urgent repairs.

Long-term proposals:

- Overall ventilation and insulation solutions to be designed and provided at restoration works.

**Attics**

Condition:

Attic spaces are in good condition generally but some water ingress has occurred at the northern attic space (the room with exposed truss members).

First phase proposals:

- Carry out roof repairs at water ingress at valley over attic space in northern block.
- Record and protect pencil graffiti on the exposed truss members.

Long-term proposals:

- An appropriate use for this space may be difficult to achieve due to the onerous nature of the location of the rooms in regard to fire escape, and therefore the attic rooms may only be usable for storage or a use with very occasional access.
- Parts of the northern block attic that was part of the original Goldie building, and the western block attic have been fitted out with modern partitions, dry lining and roof lights. The internal wall, door and ceiling fabric therefore has limited significance and it may be possible to remove the walls and re-plan the interior.

**Chimneys**

Condition:

Chimney stonework appears to be in good condition. Close examination was not possible.

First phase proposals:

- Inspect all chimneys and sweep/clean as required. Carry out structural, water ingress, lead flashings and ventilation repairs, if required, to arrest water ingress. Chimney flues require permanent ventilation and all flues should retain the required degree of air passage through.
- Check external condition of each chimney invading all chimney pots some of which are historical fabric. Make repairs to any chimney pots that is in danger of deterioration or collapse.

Long-term proposals:

- Ensure ventilation of chimney flues if chimney will be unused. Ensure fire stopping of chimneys in accordance with any required fire compartmentation of the floors.
- A trickle vent system at the fireplace and a suitable closer at the chimney pots can be used as part of the ventilation system to be designed for the overall building.
- Conservation repairs stonework, flashings, cappings and chimney pots as required.

- All disused flues require regular maintenance. The greatest risk is from bird nests or other debris entering the chimney from above, or from building debris from the flues themselves. Either form of debris can block flues in unexpected places, leading to damp, smells, staining and other problems. The simplest way to check for and clear such debris is to have the disused flues swept.

**External walls**

Condition:

External walls are generally structurally sound and show no major signs of dampness apart from water ingress from blocked gutters over (as described above). The walls are exposed limestone blocks with extruded or strap type pointing, (raised and proud of the stonework) in which case it is likely that the 'breathability' of the walls has been degraded by the presence of cement on the joints (as distinct from the original lime pointing which allowed the walls to 'breathe'). Some small areas of vegetation also exist.

At the chapel some walls where the timber panels exist and elsewhere were treated by specialists with injected pellets to combat rising damp. The strategy appears to have worked to an extent though some panels and hessian panels still show signs of damp and mould.

First phase proposals:

- Investigate the make-up of external pointing and any renders. Investigate the external surfaces of all walls for areas of water ingress, dry rot and any other defects
- Remove all vegetation from wall surfaces.

Long-term proposals:

- If the pointing at external stonework is cementitious, the pointing should be removed and replaced with lime mortar pointing and lime-based internal render to match historical render. Some original pointing may survive which may be used as evidence and a basis for replication of the original materials.
- Investigate and apply appropriate specialist treatment to the chapel walls and elsewhere for rising damp issue where they persist.
- Inspect all areas with dry lining to the inside faces. Remove any dry lining that is redundant or will be replaced.
- All external faces to be cleaned with an appropriate water-based method.

**External doors**

Condition:

Most of the external doors are original timber doors. (Some doors were not accessible to inspect due to security related plywood cover sheets to each side). Some doors are modern fabric and some modern glass panels exist. The doors appear in fair/good condition throughout, including original timber and ironmongery.

One set of exit doors to the courtyard is dismantled but remains on site.

First phase proposals:

- Concentrate on the doors proposed to be used in the relevant works, (unless other doors are causing environmental or water damage), i.e.,
  i) The main south facing double entrance doors;
  ii) The side-porch door at the Chapel.
  iii) The door(s) proposed to be used to access the courtyard.

- Investigate condition of the doors in terms of functionality, safety, timberwork, opening and closing, frames, hinges, ironmongery, thresholds, glazing etc., and repair as necessary to retain all historic fabric where present.
- Some doors may need to be reversed to open in the direction of means of escape. This may be done with modern doors, but where the door is of historical value each door to be investigated as to the impact of reversing the doors. Such doors may need to be maintained open when the building is in use.
- Repair and re-hang the dismantled doors to the courtyard. Repair for re-use a second courtyard access door, allowing access to the First Phase fire escape route within the building.

Long-term proposals:
- Investigate condition of the doors. Repair and restore the original historic timber doors, door fittings, fixtures and ironmongery, retaining as much of the historical fabric as possible. Modern replacement doors should be inspected for quality and possible retention, or for replacement with doors to match the original doors of the convent.
- Historic doors to be repaired by skilled conservation joiners. New doors, timber details, fixtures, fittings and ironmongery to recreate typical joinery profiles and timber detailing of the appropriate period, following detailed drawings by the conservation architect.
- Fire safety regulation dictate that final exit doors on a fire escape route should open outwards, and this will necessitate the reversal of some doors which may adversely affect the character of the historic fabric of the doors. An acceptable option for some cases will be the maintaining of the doors in an open position while for instance, the chapel is being used, or the automatic opening of the final exit doors, linked to the fire alarm system. Careful planning and detailing are required, as well as the investigation of all other options but, if required, any such details, fixtures and fitting must be designed appropriately.

**Ceilings**

Condition:

Flat rendered ceilings:

Good condition generally throughout. Some areas of mould growth likely due to condensation and lack of ventilation. Some areas of water ingress at the areas shown above. Some collapsed sections due to severe water ingress including at side porch at Chapel and large first floor Hall.

Chapel timber panelled ceiling is in good condition throughout but the square panels have been papered over and painted. One such panel has been uncovered showing a pleasant simple blue painted panel and this panel appears on good condition.

Tongued and grooved timber cladding at main entrance lobby in good condition.

Tongued and grooved painted timber boarding on painted exposed ceiling joists and painted exposed joists adjacent to some corridor ceilings are in fair condition with some mould evident and peeling paint.

First phase proposals:
- Investigate the ceilings at any areas required for short-term proposals. Investigate the causes of wetness and dampness, mould growth and paint peeling at all areas in the building where they occur and arrest the causes of water ingress, condensation and lack of ventilation.
- To all ceilings to relevant areas for use in Short -term proposals, and once water ingress to the fabric has been arrested. Ensure a sufficient level of ventilation to the relevant areas. Clean off flaking paint, mould etc.

- New painting of ceilings may not be required in the short term, but where painting is required, ensure the ceilings are dry and properly prepared, and paint with approved breathable paint. For ceilings that require repainting the existing finish should be checked for historical fabric which in general would be repaired and retained. Repaint approved areas with approved breathable paints.
- In the chapel ceiling investigate conditions of original panels by removing modern paper to reveal original panels and repair as necessary.

Long-term proposals:
- Investigate causes of mould growth and wetness and dampness at all areas in the building where they occur and arrest the causes of water ingress, condensation and lack of ventilation.
- Once all ceilings have dried out and the cause of water ingress, dampness, condensation and mould have been arrested the walls should be prepared for refurbishment. The ceilings may be refurbished to match the original design and finishes at each room and corridor, with conservation repairs to mouldings where required. Sufficient evidence of original materials and colours may be present to inform the design of the restoration.
- Repair like-for-like with traditional lime plaster and riven lath to conservation architect's specification.
- Existing paint finishes should be checked for historical paintwork, a painting plan approved and repainting with approved breathable paints.

**Stairwells and internal steps**

Condition:

Two main timber historical timber stairs, string courses, balustrades and carved newels and other details in good condition throughout. Modern stairs coverings in fair condition and functional.

Timber steps (5no. carpeted) at level change at rear of chapel with varnished solid timber guardings and ornately carved newel posts, all in good condition.

Steps at chapel public gallery with modern timber handrailing and guardings are in good condition.

Attic stairs (stand-alone) at first floor, north end of east elevation, timber stairs with two (90-degree dog-leg) flights, timber balustrading and detailing, generally in good condition.

First phase proposals:
- For proposed Short -term works investigate the condition of all stairs and steps to be used, including under the existing floor coverings if possible. It is likely that the floor coverings will suffice in some cases for Short -term function, otherwise new coverings should be applied if required, that are appropriate to the settings.
- Even for Short -term proposals consideration should be given to increasing the height of the balustrades and landings at the relevant stair flights, as the existing heights are lower than the building regulations required heights of 900 and 1100mm respectively. There are various methods of achieving the raining of the heights that will not adversely affect the historic timber fabric of the stairs.
- Apply conservation-led, appropriate coverings and safety markings.

Long-term proposals:
- Investigate the condition of all steps and stairs, including under the existing floor coverings if possible. New coverings should be applied if required, that are appropriate to the settings.

- Repair and refurbish all timberwork with finishes to match the original stairs.
- Designs should be agreed to increasing the height of the balustrades and landings at the stair flights where required, to the building regulations required heights of 900 and 1100mm respectively.
- New fire escape stairs may be required depending on the final usages and layout agreed. This will necessitate the removal of historical floor and wall fabric and the creation of new openings in the external and internal walls where the stairs is proposed.

**Internal walls**

Condition:

Lime rendered solid masonry walls (may have some cement rendering) in good condition generally, with some areas of severe water ingress, and general extensive mould growth and extensive paint peeling, especially at inside faces of external walls.
Lathe and plaster partition walls are generally in good condition but various repairs are necessary.
Paint finishes in fair condition generally, but repainting required.
Modern plasterboard partition walls in good condition.
Timber clad partition walls in good condition generally.
Modern tiled walls at Ground Floor kitchen, with timber grazed screens.
Modern internal glazed lobby and door at main chapel entrance from corridor.

First phase proposals:

- In the short -term it is essential to let all damp walls dry out before any treatment to render, paints, or timber panelling at any areas required for short-term proposals. Investigate the causes of wetness and dampness, mould growth and paint peeling at all areas in the building where they occur and arrest the causes of water ingress, condensation and lack of ventilation.
- To all internal walls to relevant areas for use in First Phase proposals, and once water ingress to the fabric has been arrested, ensure a sufficient level of ventilation to the relevant areas. Clean off walls of flaking paint, mould and effervescence etc.
- Investigate for historical paint finishes at the relevant areas. Preserve/restore as appropriate.
- New painting of walls may not be required in the short term, but where painting is required, ensure the walls are dry and properly prepared, and paint with approved breathable paint.

Long-term proposals:

- Once and the causes of water ingress, dampness, condensation and mould have been arrested and all walls have dried out, the walls may be refurbished to match the original design and finishes of each room and corridor. Investigate all historical paint finishes. Preserve/restore as appropriate. Restore all walls and ceilings and refinish with appropriate paint or other finishes. Sufficient evidence of original fabric makeup and colours may survive to inform the design.
- Any damage or interference with the fabric due to removal of services or installation of new services must be repaired in accordance with conservation principles.
- All historical fabric exposed with removal of dry-lining or other covering woks, fixtures or fittings must be repaired and restored as per the area and situation.
- Modern internal glazed lobby and door at main chapel entrance to be removed and conservation repairs carried out as necessary.

- Any damage or interference with the fabric due to removal of services or installation of new services must be repaired in accordance with conservation principles.
- Fire compartmentation where required will necessitate the upgrading of some internal walls to achieve the level of fire rating required for the compartment. This may be done by altering or adding to the existing walls to various extents, but will likely adversely impact on the historic lathe and plaster walls. Another option will be to construct new fire rated walls against the existing walls, to an appropriate design, and which will preserve the existing walls.
- Existing paint finishes should be checked for historical paintwork, a painting plan approved and repainting with approved breathable paints.

**Internal masonry**

Condition:

Chapel cut-limestone thumbnail beaded corbels, semi-columns, and pointed-arch chancel arch framing carpeted cut-limestone stepped dais to sanctuary generally in good condition.
Water font at chapel all in good condition.
Plaster skirtings in good condition.

First phase proposals:

- Investigate condition of limestone font at chapel side entrance porch and refurbish as necessary.
- Tabernacle to be retained and cleaned

Long-term proposals:

- Carry out conservation repairs and restoration where necessary to all internal masonry features.

**Internal doors**

Condition:

Historic internal timber doors architraves and skirtings and carved timber surrounds to door openings framing timber panelled doors generally in good condition.

First phase proposals:

- Check all doors for functionality, working ironmongery, locks and hinges. For the relevant areas to be used in Short -term proposals the doors should be fully functional including the ironmongery. The existing antique ironmongery should be repaired and reused if possible (but perhaps the locks may not be required in the short term).
- Repair doors at Chapel side porch or retain for later repairs.
- Some doors may need to be held open temporarily for fire safety reasons and appropriate fixings should be used.

Long-term proposals:

- All doors and related glazed panels, ironmongery, fixtures and fittings, should be closely inspected and a detailed methodology for restoration compiled and executed. This may include removal of modern or denuded joinery finishes where required and re-finishing with appropriate applications. Any restoration will have to take into account the possible need for additional fire rating of the doors, and there are appropriate conservation-led measures for the fire rating.
- Modern doors should be evaluated and replaced where possible with doors, ironmongery and fittings to match the original doors that would have been in that location. Otherwise,

the existing doors, if of sufficient quality may be retained, or new modern doors with modern ironmongery and fittings, of sufficient material and design quality to be appropriate to the setting may be approved.
- Where protected corridors are required the doors along the corridors will require upgrading to fire doors. The doors will require expert assessment in this regard to ascertain the level of works required. If those works are such that the special interest of the doors is going to be severe and inappropriately impacted then an option is to remove the doors and doorsets, store them safely on site for possible future re-use, and fit fire doors and doorsets to replicate the existing doors.

**Internal joinery**

Condition:

Carved timber surrounds to door openings to framed timber panelled doors with carved timber surrounds to window openings framing timber panelled shutters generally in good condition.
Timber and hessian wall panelling at chapel contain fabric panels showing areas of damp and mould growth, due to rising damp and lack of ventilation to the space.
Timber wainscoting and panels generally in good condition.
Timber vertical sheeted partitions generally in good condition.

First phase proposals:
- Clean off moulded panelling and refurbish the fabric once the material has dried out sufficiently.
- Carry out conservation repairs to joinery and panelling where necessary for the proposed uses.

Long-term proposals:
- All internal joinery and related fixtures and fittings, should be closely inspected and a detailed methodology for restoration compiled and executed for fabric of significance, Conservation repairs to be carried out with relevant cleaning, repairs and refinishing to match the original fabrics. Internal joinery that is modern and of limited significance will be assessed with regard to removal or retention, including the wall panelling at the chapel.

**Internal first floors**

Condition:

Timber first floors with timber floorboards appear in good condition generally. No obvious structural damage or sagging of floors is evident.
Some damage includes a hole at the first-floor hall (north block) due to persistent water ingress from a leak above. Some floors were not visible due to the floor coverings.

First phase proposals:
- No first floor areas are proposed to be used, therefore only emergency works are required to first floors, if any.

Long-term proposals:
- Check all floors for structural stability. Remove all modern floor coverings. Repair and restore all timber floors to original conditions and finishes. Provide appropriate floor coverings where required.
- Compartmentation works will require the fire rating of some floors, especially under residential accommodation. Options for achieving the fire rating include the fitting of fire

rated materials between the floor joists which requires the removal and refitting of the historic floorboards.

**Internal ground floors**

Condition:

Raised timber floors throughout with timber floorboards (generally) on timber joists on deep masonry stub walls on made up ground surfaces are generally in good condition. Underfloor ventilators in external walls appear to be open but some may be locked and some covered with raised external hardtop levels.
The Chapel floor plywood finish (over the original parquet flooring) is in good condition.
The hardwood parquet flooring that was exposed also appears in good condition.
Ceramic tiles to corridor areas on raised timber floors are generally in good condition.

First phase proposals:

- For areas to be used in the short -term check the safety and functionality of the floors in terms of re-use and the levels of traffic expected. Existing floor coverings may be left in place if appropriate to the use. If floor coverings are removed then the condition of the floorboards below should be checked, and cleaned, repaired and refinished to match the original finishes as required.
- Check all underfloor vent opes;
- Carry out conservation repairs to hole in floor at Chapel public gallery and adjacent porch. Damaged floor area to be fully investigated. Structural timbers to be repaired with splicing in new timbers to match, or other approved process. Affected timber floorboards to have rotted portions cut away. New floorboards to match existing to be fitted.

Long-term proposals:

- Check all floors for structural stability. Remove all modern floor coverings. Repair and restore all timber floors to original conditions and finishes. Provide appropriate floor coverings where required.
- Check all tiled floors for originality, defects and safety issues. Repair and replace tiles as approved. Note section of floor under the main stairs with denuded tiles which may be section of original tiling.
- Compartmentation works including works to separate areas under the floor level with fire rated construction.
- Insulation works may require application of insulation to the undersides of the timber ground floors if this is feasible and appropriate. Access to the subfloor should be investigated in order that insulation may be applied from the underside, otherwise all floorboards will need to be lifted to apply insulation from above. Neither option may be appropriate.

**Fireplaces**

Condition:

12no. fireplaces survive in various designs and sizes, 7no. at ground floor and 5no. at first floor, and are generally in good condition.

First phase proposals:

- To areas that are to be used for the first phase uses the fireplaces should be checked if in working order, made good and cleaned. It is unlikely that the fireplaces will be re-used as intended so in the short term, but it may be appropriate to re-use the fireplace in the Main hall depending on the viability of heating the space in the short term. Fireplaces in rooms

proposed to be first used should have the flues closed off in an appropriate manner to reduce het loss through the flues. An example of closing off would be the use of flue balloons which close mush of the flue and allows a tiny percentage of air through, in order to maintain ventilation of the flue.

Long-term proposals:
- Check all fireplaces to ascertain if they are in working order and if the flues above are clear or blocked.
- Restore fireplaces to original materials and finishes. A system for blocking the flues should be installed to reduce heat loss through the chimneys, if the fireplaces are not to be used. However, the overall ventilation design may require the flues to be used as part of the ventilation system.

**Kitchens**

Condition:

The main kitchen has been fitted out with modern partitions, fixtures, finishes and equipment. The facility has not been used since 2009, but appears in fair condition generally. A blocked-up fireplace probably used in the historical period survives.
The first-floor modern kitchenette/tea station is in fair condition.

First phase proposals:
- The kitchen includes a small separated area at the doorway to the main hall and this area should be refurbished to the extent required for immediate use of the building. The area will function as a small kitchen.

Long-term proposals:
- The kitchen is in an ideal location for access from the car park, and adjacency to the main hall, chapel and main stairs. It was also likely the original location of the kitchen. Long-term proposals should include an appropriate restoration of the room (including restoration of the fireplace which may be re-used) as a main kitchen. The kitchen will require modern equipment and services and some of the existing modern fittings may be refurbished for re-use.
- The first-floor kitchenette/tea station should be assessed in relation to the overall long-term use proposals, but it is unlikely to be appropriate for re-use. Redesign of the area therefore will be informed by the brief requirements.
- Other kitchen or tea station facilities will likely be required in any long-term proposals and will need to be carefully designed into the historical parts of the building if required in those areas. Use of the modern 1980s extension for kitchen and related areas will be preferable, the limited significance of the extension allowing more alterations to its interiors.

**Lift**

Condition:

The lift is a modern addition adjacent to the main stairs. The lift was not tested as the electrical system is damages due to water ingress and vandalism. The lift appears to be in fair condition, but was not tested. The size of the lift compartment also appears to be too small to comply with building regulation requirements (for wheelchair use), but exact compliance cannot be confirmed at this stage.

First phase proposals:

- Check condition and compliance of lift. It is not intended to use the lift for the first phase works.

Long-term proposals:
- The location of a proposed lift any change in accordance with the final plan requirements, so the lift location may be moved.
- The lift should be checked in accordance with the criteria stipulated in the Building Regulations TGD Part M: *Access and Use* (including for persons with disabilities).
- The lift should be repaired and upgraded if it is in compliance with the regulations and if it is required to be used for access between floors.
- Any proposed use of the lift must also satisfy the requirements of the Building Regulations TGD Part B: *Fire Safety*
- Any proposed use of the lift or construction of a new lift must satisfy the requirements of the Building Regulations TGD Part B: *Fire Safety.*

**Furniture**
Condition:
Any surviving furniture is in good condition.

First phase proposals:
- Repair as necessary and reuse the existing furniture as part of the short-term proposals.

Long-term proposals:
- Reuse the furniture as part of the long-term proposals, in the most appropriate locations.

**Toilets and shower areas**
Condition:
At ground floor the sanitary facilities comprise a number of small WC rooms and are confined to the modern 1980s extension. The facilities are modern in design with tiled block walls and modern doors and fittings. All finishes and sanitary facilities are in fair and functional condition but require refurbishment.
At first floor the sanitary facilities located in the modern extension comprise three WC rooms and two shower rooms. All finishes and sanitary facilities are in fair and functional condition but require refurbishment or replacement.
Facilities in the historic parts of the first floor comprise two separate areas with WCs and bath areas. The first-floor eastern block facilities include a bathroom with shower area and two rooms with timber commodes, all of the rooms having timber partitions and panelling and all of which may be considered historical fabric. The fabric is generally in good condition but the commodes may be deemed to be inappropriate for modern use.
The first-floor western block facilities include a bathroom and two modern WC rooms, with modern tiled and painted finishes to walls. In good condition but in need of replacement or refurbishment.
Sluice room (first floor) and Utility Room with hot press room adjacent, are generally in good condition.

First phase proposals:
- The ground floor facilities may be refurbished and used for any immediate use of the building, but an accessible WC is not provided.
- Provide accessible WC facilities and new drainage adjacent the existing WCs at the modern extension area as shown.

Long-term proposals:
- The final proposals will dictate the number of WCs, Accessible WCs, and other sanitary facilities. Some of the existing facilities may be suitable for re-use, but new facilities in accordance with the building regulations will be required on both floors. However, sanitary facilities may also be required at parts of the historical blocks, which will require careful conservation-based design and construction.
- The Sluice room, Utility Room, and Hotpress may not be required in a new proposal in these exact locations, but a relatively small number of repairs to the fabric would be required for restoration of these rooms.
- New Sluice room, Utility Room, and Hotpress may be required in long-term proposals and the ideal location for any such new ancillary facilities will be the modern 1980s extension part of the building, which may allow for alterations and new works, due to its limited significance.

**Internal drainage and plumbing**
Condition:
No detailed opening up or inspection of the drainage and plumbing services was carried out. On visual inspection plumbing and internal drainage appear to be in fair condition, and would have been in working order at building closure in 2009.
The boilers and associated equipment are not in working condition at present therefore the heating system is not in working order but may only require general refurbishment.
Mechanical services including sanitary and kitchen services are in fair condition.

First phase proposals:
- The main drainage systems should be checked for any repairs required. Some existing sanitary services and fittings will be required for the first phase works so a general refurbishment to those relevant services will take place. Some new drainage and plumbing required at new accessible WC.
- Check all remaining services to ensure that no potential damage to the existing fabric will occur if some of the services are left unused.

Long-term proposals
- The final design will dictate the level of new services required. Some existing services and service opes may be re-used in order that the new system will be carried out in the most appropriate way to avoid adverse impacts on the protected structure.

**Heating services**
Condition:
An oil-fired central heating system with steel piping and radiators appear in fair condition and may require refurbishment to be in working order for any short-term proposals. Various internal exposed pipework runs exist and appear in good condition, but various areas of damage to the historical fabric has taken place. Old 50mm pipework to some parts of the building, painted, appear in fair condition but may be corroded within.

First phase proposals
- Inspect the overall heating system and ascertain if the system can be used to heat the relevant areas of the first phase proposed uses. Make necessary repairs and works to allow for partial heating system. New boiler and oil tank for temporary heating of the First Phase

areas may be installed in a suitable location to be agreed. An option for the location is the courtyard space.

Long-term proposals

- Any major restoration should include for a new sustainable heating system such as a high efficiently condensing boiler and central heating powered by air source heat pump or other system located at the existing boiler room to the rear of the building and appropriately designed for the use of the Protected Structure, and installed in accordance with the best conservation principles in regard to heating, maintaining and preserving the existing and restored fabric. The restoration should include for removal of all redundant services throughout the building where existing services cannot be re-used, and repair and restoration of historical fabric impacted by existing services. New services to be appropriately designed. (See also 'Heating and Plumbing' section below).

**Electrical services**

Condition:

Water ingress to parts of the building, and theft events has caused the electrical supply to be unusable and unsafe. The electrical works are not in operation for safety reasons, but the services are quite modern. Various exposed and concealed wiring, and fittings with various areas of interference and damage to the historical fabric throughout. The services throughout and the main electrical cabinet room equipment appears to have been in good condition prior to the theft and water ingress issues. There is a lack of fire safety measures at the electrical room under the timber historical stairs.

First phase proposals:

- After repair works to the areas of water ingress, the electrical services should be thoroughly investigated and repair made where required to allow the necessary first phase works to be carried out. New wiring may be necessary to the relevant areas. Any necessary new services, fixtures and fittings will be installed. Ensure that there is no risk of fire or any other risk to building users, from the existing electrical services.

Long-term proposals:

- A detailed investigation and survey of the existing internal electrical layout, ducting, piping and fittings is required.
- In accordance with the investigation of the electrical services, new services, fixtures and fittings will be required in relation to power, lighting, heating where required, fire safety, security, CCTV, universal accessibility and any other electrical works as required to the building and site to be carried out. Defunct services, fixtures and fittings deemed to have no significant conservation value to be removed, where this can be done without adversely affecting the historical fabric. Any major restoration should include for removal of all redundant services throughout the building and repair of historical fabric impacted by services, including the removal of all surface mounted conduits and wiring; a new wiring and full electrical and lighting system appropriately designed for the use of the Protected Structure, and installed in accordance with the conservation principles;
- The electrical fixtures and fittings should respect the character of the building areas, but should be of modern and high-quality materials.

**Lighting**

Condition:

Early antique and mostly modern electric lighting throughout. Much of the wiring is concealed behind dry lining panels above ceilings and some first floor flat and vaulted ceilings.

First phase proposals

- Check lighting fixtures and make any necessary repairs to the existing lighting for possible re-use at the proposed areas; install new light fittings, type and location to be agreed.

Long-term proposals

- Lighting in historic spaces to reflect the historic character of the rooms. A detailed and expertly designed system will be required for all areas from complex museum displays to functional offices, bedrooms, sanitary areas etc. Free-standing lamps to be used to minimise chasing of walls; appropriate systems that from ceilings and other suitable surface mounted lighting systems to be used. The light fittings and switches should respect the character of the building areas, but should be of modern and high quality materials. (See also 'Heating and Plumbing' section below).

**Modern (1980s) Extension**

Condition:

The extension, with an area of 700 sqm is in generally in fair condition, having been closed in 2009, but some serious defects are present.

Non-maintenance of the exterior fabric, along with vegetation build-up at walls and gutters, vandalism and wind damage has resulted in areas of severe water ingress at numerous areas causing dilapidation at the interiors. Ruptured flat roof felted areas and broken and missing slates throughout and large amounts of broken window panes.

External vegetation has mostly overgrown the ground floor at the courtyard.

Dilapidation of services, fixtures and fitting at the interior and at exterior.

The blocking of the windows with ply sheeting has reduced ventilation and daylight resulting in condensation and mould growth. The extension if constructed to contemporary building regulation standards would be deficient in relation to most of the regulations now, including fire safety, access for persons with disabilities, conservation of fuel and energy, ventilation.

First phase proposals:

- Investigate the fibre cement slates for presence of asbestos.
- Arrest the areas of severe water ingress. Local repairs may suffice to arrest the water ingress however any works to asbestos products will require strict health and safety procedures, which may result in extensive short-term repairs that are difficult to achieve. Repair the flat roof areas and any other areas of water ingress at equipment and service structures on the flat roof. A strategy for the repairs to the roof areas should be drawn up as soon as results of asbestos checks are available.
- Remove plywood sheeting to windows.
- Any proposals for first phase re-use of the building will likely require some use of the modern extension including the rear entrance adjacent the main kitchen (which is in the historical building), kitchen stores, the corridor for escape, the final exit, the new accessible WC and the WCs. These areas will require checks in relation to condition, risk assessment, compliance with building regulations (especially access for disabled and fire safety), etc. the extension will require some refurbishment of the corridor and the relevant WC rooms and any other rooms proposed to be used, to an acceptable and safe standard with works that may be carried out economically and may not be the final finish to the areas.

Long-term proposals:
- The modern extension building should be retained in full to cater for the accommodation required by the draft brief.
- The modern extension, by virtue of its limited significance, may have the advantage that the fabric can be removed and altered without the restrictions that would be placed on the protected convent building. For instance, this would allow for the increase to sizes of sanitary areas; alterations to rooms to make larger or small; alterations that may allow further ancillary functions such as service areas; possible new fire escape final exit near the stairway in the extension.
- The fabric of the extension building should be fully upgraded to current building regulation standards throughout for re-use.
- The boiler room may be retained for similar function, i.e., to house the proposed heating equipment.

**Gatehouse**
Condition:
The gatehouse and all fabric are in good condition generally.

First phase proposals:
- Carry out any necessary repairs.

Long-term proposals:
- Any long-term proposals will be informed by the overall long-term proposals for the convent and grounds.
- If the gatehouse is an integral part of the long-term proposals for the site, consideration should be given to upgrade the design of the external and internal fabric to be more appropriate to the setting and proposed uses. Tis upgrade may not reflect the historic detailing of the convent building but should be of a quality to match.

**External areas**
Condition:
Hardtop and access roads surrounding the building:
All immediate external areas as the convent building have hard-top (tarmacadam) finishes. The tarmac finish is in fair condition with loose chippings, tracks of service excavations throughout and worn parking space markings.
Historic limestone steps to main entrances at South and East elevations and at side entrance to porch at Chapel with low stone walls are in fair condition with some cracks and breakages, and a section of stone wall missing at main south elevation entrance.

Main site entrance:
Site traffic egress visibility appears to be quite safe due to the clear view of one-way traffic coming down McDermott St hill from the west.

Site boundary wall (at main site entrance at McDermott St.):
The wall is in good condition generally. A section of the end of the easternmost section of wall shows signs of cracking and loss of mortar in joints, though no displacement is evident. Some ivy growth and vegetation (overgrowth from green area within the site) at lower (east) section of the wall.

Walls, Gates and railings:
Stone walls, block walls, railings and gates in fair condition throughout the site.

Graveyard:
The proposal site includes access to the refurbished graveyard to the north of the and hard landscaping of gravel and concrete paving. This is a long rectangular space with modern grave stones on each side. The site is bound to the north of the graveyard by block walls with steel palisade fencing behind. Access to the graveyard from the convent is via open areas of tarmac hard top finish and concrete paths. The graveyard is in good condition having been recently refurbished. Walls and paved areas in the vicinity are in fair condition generally.

Courtyard in the convent quadrangle:
The area is fully covered with overgrown grass, and some small trees, and contains a modern masonry centrepiece. Water and other services are underground.

<u>First phase proposals - All external areas:</u>
- The short-term proposals may require increased lighting and signage (Note also that illumination of the areas may be done at First Phase), proposed pedestrian walkways, parking areas and entrances to the building.
- In the courtyard a usable area could be created by clearing the vegetation from the buildings and the ground, and making a suitable area for use. The existing concrete paving should be cleared and investigated for possible reuse.
- The stone centrepiece of the courtyard and the paving area therein should be investigated further in terms of significance.

<u>Long-term proposals - All external areas:</u>
- Part of any long-term restoration will include alterations to the existing external areas, including a reduction in area of hard-top surfaces in lieu of hard and soft landscaping; application of new hardtop surfaces to the vehicular and parking areas to be retained. All designs should be appropriate to the setting, and the significance of the structure.
- Existing green areas on the site to be examined for condition of soil, drainage, trees and general vegetation. Further landscaping and usage proposals to be carefully designed and appropriate to the setting.
- Trees at the inside of the main boundary wall should be monitored in order to avoid detrimental effects to the wall, such as pressure from growth of branches and tree trunks. All trees should be examined and monitored in relation to health and safety of the site users.
- All walls, railings and gates should be investigated and repaired and refurbished appropriately. Old stone rubble walls, old railings and any other historical or significant site features including statue plinth and low cut stone walls at southern entrance to the building, will require detailed examination and all repairs to be conservation-based.
- Investigate area of concern at easternmost end of wall and repair or rebuild as required. Repoint with lime mortar to match existing.
- The access roads and parking areas should be resurfaced. New surface finishes may range from plain blacktop to proprietary coloured and textured finishes, new kerbs and paved areas where required, and all surfaces, changes in level etc. to comply with universal accessibility requirements.
- Some lime pointing will be required to the main boundary stone wall at McDermott St. in due course.

- Repainting required with suitable black paint suitable for galvanised steel railings and gates at the main entrance.
- The courtyard area within the quadrangle requires a full refurbishment with appropriate hard and soft landscape design, with possible introduction of shelters, seating etc.
- A loop walk is proposed around the extents of the site including to green areas and encompassing the refurbished graveyard. Some new openings in the block walls in this area will be required, along with general repairs, additional signage and lighting and other additional works to provide comfortable universal access.
- The external area to the east of the convent to be assessed in relation to the opening up of the vista toward the town centre. The proposals may include for a new stepped area in the direction of the town with a paved seating and viewing area below. Such works may also open up the view of the convent from the town. However, such works may require the removal of some mature trees, and may result in overlooking of nearby residential areas, therefore a detailed study is required to establish the feasibility and appropriateness of such works.

**External services**

Condition:

No detailed opening up or inspection of the services was carried out. On visual inspection the services appear in working order and no blockages or leakages were noted. However, the services comprise a mixture of historical, early 20th c. and modern services and require a full refurbishment throughout.

First phase proposals:

- The main drainage systems should be checked to ascertain if any repairs required.
- Check all services to ensure that no potential damage to the existing fabric will occur if some of the services are left unused.
- Services to areas relevant to first phase uses should be checked and repaired to appropriate levels for the proposed uses. Carry out any local repairs as required.

Long-term proposals:

- A detailed investigation and survey of the existing foul and surface water drainage system is required. It will be vital to understand what drainage is currently in place in order to carry out proposals for re-use of the convent and to ascertain the extent of repair and new works required to achieve an effective drainage system. It will also help with the choice of SuDS (Sustainable drainage systems) if they are chosen to be implemented. SuDS are drainage solutions that provide an alternative to the direct channelling of surface water through networks of pipes and sewers to nearby watercourses.
- All external services to be repaired, refurbished and upgraded or replaced as required in accordance with the proposed repairs, restoration works and proposed new uses at the building and grounds. Any major restoration should include for removal or decommissioning and permanent sealing off of all redundant services throughout the building and repair of historical fabric impacted by services.

**20. Conservation of Fuel and Energy**

Building Regulations Technical Guidance Document Part L: *Conservation of Fuel and Energy - Buildings other than dwellings: 0.6 Application to Buildings of Architectural or Historical Interest 0.6.1 Part L does not apply to works (including extensions) to an existing building which is a "protected structure" or a 'proposed protected structure" within the meaning of the Planning and Development Act 2000 (No. 30 of 2000).*

The section above exempts the owner of the building from the requirements of the regulations in regard to conservation of fuel and energy. However, any new proposals should include for a detailed study of appropriate heating, power, ventilation and insulation systems with a design that is appropriate to the building's Protected Structure status. The proposals should be economically feasible and should provide appropriate levels of comfort to the building users. All proposed works to upgrading of energy efficiency should be carried out in accordance with the advice given in the DoELG Advice series: *Energy-Efficiency-in-Traditional-Buildings-2010.*

**21. Heating and Plumbing**

General

For short term proposals the cheapest works with the greatest energy savings are draught proofing, attic insulation and upgrading the boiler and heating controls. These can often be carried out with a minimal impact on the appearance of a building or its historic fabric.
Long-term proposals will require a detailed fundamental reassessment of the existing building and heating system and a new design for comprehensive new systems.
The existing boiler room is quite large and should be suitable for the any proposed heating services equipment with existing main service runs available for re-use.
Energy efficient, sustainable and carbon-efficient forms of space heating should be investigated, and compared with any oil-based system.
Some new systems can link into the existing pipework. Various alterations to the pipework will be required however, due to the proposed alterations at rooms, walls and doors, new rooms and partitions. New radiators would also be required.
The retention of existing services may reduce the extent of restoration that can be done. An examination of the heating options and their implications in relation to, primarily, the impacts on the protect structure, and their cost and efficiency is required.

Oil boiler

The existing oil fired central heating system could be overhauled and improved with new boilers and new radiators. Various alterations and extensions to the existing pipework will be required due to proposed internal plan changes.

Gas condensing boiler linked to existing pipework

As gas main are located in the area a gas fired central heating system should be considered which could also link to the existing system, and would require various alterations as per a new o.f.c.h. system.

Wall mounted air conditioning units

Wall mounted air conditioning units can provide heating to certain rooms, suiting especially the larger rooms on the ground floor. Some units are ductless, using small bore pipework, and many surface mounted heaters are available. However new interference with the historical fabric will be required, and must be considered before choice of system.
An option would be to provide a separate radiator system for the cellular first floor using the existing pipework.

Gas condensing boiler linked to existing pipework

As gas main are located in the area a gas fired system should be considered which could also link to the existing system.

Wall mounted air conditioning units

Wall mounted air conditioning units can provide heating to certain rooms, suiting especially the larger rooms on the ground floor. Some units are ductless, using small bore pipework, and many surface mounted heaters are available. However new interference with the historical fabric will be required, and must be considered before choice of system.

Heat pumps

Various heat pump systems should be investigated to ascertain the best system for the building fabric, site factors, and proposed uses. Heat pumps include air-to-water pumps and ground based heat pumps which involves the placing of extensive piped underground works or deep drilling systems. Heat pumps can often link into the existing pipework. However heat pumps work best serving as a source of heat for underfloor heating, where the water temperature required is lower than for radiators and the implications of such are that all floors would require lifting and relaying, which may not be appropriate for the convent building. Heat-pump radiator systems with moderate and constant radiator output is also to be considered.

Photovoltaic (PV) panels

Photovoltaic systems are efficient methods for water heating and should be investigated as part of the design, initially assessing the roof spaces and site spaces which could be used. Solar panels require an enlarged water cylinder which must be accommodated within the building and the existing boiler room is likely to be appropriate. See other sections in relation to PV system installation and impact.

Building services management

Consider how the proposed multi-use building will be used and managed when repairs and refurbishment, insulation, airtightness and ventilation works are completed. The greatest savings in energy consumption will come from assessing the ways the building will used, times of use, and behaviours of the proposed occupants. Some immediate benefits include:

- Individual temperature controls in each room, and corridors;
- Correct timing of thermostats for rooms only used at certain times;
- Heating of seldom-used rooms only to a low level;
- Having shorter or more efficient running times for the heating system;
- Using occupancy detectors and energy-efficient light bulbs;
- Closing shutters and curtains at night;
- Fitting smart meters;
- Ensuring that the correct use of heating controls is understood by the occupants;
- Using daylight for lighting rather than artificial lighting.

## 22. Electrical Works

General

The building has a relatively modern electrical supply with a wiring system likely dating from the 1980s with additions to the system more recently. A central electrical cupboard exists under the main stairs (beside the chapel) and wiring to the building is located variously within the wall fabric, floors and ceilings, dry lining panels and exposed wiring and conduits. Lack of maintenance, vandalism and theft events have damaged the existing system, and it is likely that an extensive redesign and rewiring works will be required for any long-term use proposals.

The proposed new uses will require a complete overhaul and re-wiring of the structure. Short-term proposals may be achieved be repairing for use and upgrading as require part of the existing system. Electrical services to be located to cause minimum chasing or openings in the historic structure. Use of wireless technology must be fully investigated to avoid interference with the historic fabric. Cable laying within conduits, where required, will be designed and approved for each situation:
Reuse existing holes channels and openings rather than create new ones, unless those existing service locations are inappropriate and the fabric at those locations require repairs/restoration;
Exposed conduits of appropriate design will be considered;
Trunking or box skirtings of appropriate design will be considered;
Conduits may be within wall plaster where necessary and approved. Wall chases to be narrow and shallow as minimum needed to accommodate services. Chasing or core drilling as may be needed to be carried out under direction of the conservation architect. Chases to be closed using lime plaster with smooth finish coat to match existing.

Fire alarm system
The convent building will require a full new and suitable fire alarm system throughout. In designing and installing the system care must be taken to balance the operational requirements with the historic interiors and fabric.
The detailed design will depend on the proposed uses but any system will be required to be installed at every room and corridor. The installation of the system must be carried out in the most appropriate manner to avoid interference with the historical fabric and should comply with the general electrical installation notes and mitigation measures in this report. The works will include:
- Central fire alarm panel located in a functional but appropriate location;
- Smoke detectors and heat detectors located in functional but appropriate locations, each area or room to be considered separately;
- Break-glass units may be required at final exits, each location to be considered separately;
- Emergency lighting and electrical signage.

Wireless fire alarms:
Wireless fire alarm systems use secure wireless connections between the sensors and the panel. Wireless technology in listed buildings and scheduled structures, where suitable, can help limit the amount of permanent damage and/or loss of historic fabric such as cabling, chasing and hole drilling, and help reduce installation costs.
Note: A wireless system will require a signal strength survey to be carried out and signal booster aerials installed as needed where the structure blocks or weakens the signal strength.

Photovoltaic (PV) panels installation
The design and installation of a photovoltaic (PV) system needs to be carefully considered so that its efficiency can be maximised, whilst avoiding damage to the significance of the building, its fabric, and its setting. Any proposed design will be carried out by the electrical consultant along with the conservation architect, structural engineer (for roof-based systems) and PV consultant as required. The amount of PV panels required will depend on the electrical consultants' final design and agreement on the appropriate electrical load to be supplied via the panels.

Roof-based PV systems:
Planning permission is not normally required for roof-based panels however such a proposal will materially affect the character of the elevations therefore agreement with the planning

authorities will be necessary. The ideal aspect of roof-based panels is directly southwards, for the most efficient output, and the inner quadrangle roofs and outer main elevations both have a substantial south facing roof areas. A proposal for PV panels on the inner quadrangle roofs would be less visually intrusive than on the external elevations which would face directly on to Convent Hill/McDermott St and is quite visible from there. Long-term restoration proposals also include for the replacement of the fibre slates on the inner quadrangle roofs with natural slates to match the original slates, and a PV array could be installed at the time of these works if appropriate.
Ground based PV systems:
If a PV array is ground-mounted in an appropriate area of the site then the impact on the building may be significantly reduced. Planning permission is not normally required for 75sqm of ground-based panels. However, the panels would likely materially affect the character of the protected external areas therefore a careful design of the overall external landscaping, incorporating an area with PV panels and agreement with the planning authorities will also be necessary.
The site area is limited and is a designed green space, which will complement any proposed use of the building and may be more valuable to the enjoyment of the building users than the use of PV panels. The final design will be the most appropriate to the significance of the site and building.
A mixture of roof-based and ground-based systems may also be investigated, especially if a large number of panels is proposed.

**23. Lighting**
Internal lighting
General:
Lighting in historic spaces to reflect the historic character of the rooms. Free-standing lamps to be used to minimise chasing of walls.
Use of wireless technology must be fully investigated to avoid interference with the historic fabric.

Early light fittings:
Where good examples of early electrical light fittings exist including switches, and it is possible to leave them in position as part of the new lighting system, then this will be the preferred arrangement.

Emergency lighting:
Emergency lighting, illuminated fire safety signage and external (final exit) lighting locations and fitting types to be carefully considered as per lighting proposals notes in this report;

External lighting
The lighting systems will be designed by specialist lighting experts where required, the electrical consultant, along with the conservation architect, and must be appropriate to the setting and significance of the building.
General Site Lighting:
External lighting will be required for:
- The safety of persons using specific the site;
- Traffic management;
- Security purposes;
- Signage;

External lighting will be required for initial works and for long-term proposals. Further external illumination of areas and features will also be proposed.

Illumination of the building:
It is intended that an external lighting scheme which will include lighting of the interior of some stained galls windows, will be carried out at the initial development stages. This will include the fitting of external luminaires to light up certain elevations and features, reuse and possibly replication of existing lighting columns, as well as the use of internal fittings which will shine outwards through the relevant windows and thus highlight the stained glass in the exterior elevations, after dark.
Initial proposals for first phase illumination of the convent by Kerem Asfuroglu of *Dark Source* lighting consultants:
*1) Backlighting of the stained windows: As per the lighting test, everything will be done from the interior;*
*2) Lantern lighting: Where possible we will refurbish the existing heritage columns. There may be opportunity to utilise additional ones which will have the same heritage feel to create a consistent lighting effect across the site. There are plinths on either side of the main entrance which we would like to consider for mounting columns. In addition, there may be occasions where wall-mounted versions of these lanterns may be considered in order to illuminate main thresholds.*
*3) The entrance facing the drop-off area: We would like to explore if we can up-light the window reveals from the window cills. This can be achieved with a discreet linear lighting detail which is concealed with a L-plate matching the colour of the stonework.*
*General Notes: In order to avoid damage to the heritage fabric, building mounted lights & cabling will all be integrated in the architecture through following or fixing into the mortar joints. Custom colours, luminaires and clamps will be employed where possible to match the colour of the stonework and the heritage fabric.*

Proposed illumination works and fixtures and fittings and the methods and the impacts of the fixing of equipment to the fabric to be agreed with the conservation architect.

**24. Insulation**
For long-term proposals the installation of insulation will be difficult due to the protection required to the fabric. It is possible to insulate all areas of the building but in many areas the options for insulation may be inappropriate. Insulation of ceilings has the least adverse impacts, while at walls and floors the impacts are more severe. Final insulation layouts will be apt of the overall building services design, but should prioritise protection to the special interests, and avoid covering up of historical surfaces

Roof insulation:
'Cold' roof insulation:
Insulating pitched roofs at ceiling level. When insulation is placed in this position, the roof is often referred to as a 'cold roof'. Insulating above the top floor ceiling is one of the easiest and cheapest means of improving the energy efficiency of buildings and such work can be carried out successfully in older buildings if approached with some care. Installing insulation at ceiling level is usually possible without any modification to significant parts of the building.
'Warm' roof insulation:

When the insulation is placed between the sloping rafters this type of insulation referred to as a 'warm roof'. At the roof areas of the building where accommodation is included in the roof space, where it is intended that these areas are to be re-used i.e. at the eastern historical block; at the northern historical block, the insulation may be applied between the roof rafters, i.e. sloped insulation, with 'cold' roof insulation placed on any flat ceiling areas (at collar tie level) as per the above notes. However, the 'warm' roof application would require removal of existing sloped ceilings and the existing attic ceiling make-up should be investigated and if the ceiling is of modern plasterboard, its significance is much reduced and the ceiling may be removed and replaced with a new ceiling after insulation process takes place. Another solution will be to apply plasterboard-lined insulation to the internal faces of the ceilings. Such a process will cover up the original ceilings however, must be detailed carefully to avoid condensation, mould growth etc. and as with all proposals for new fabric, must be reversible.
Note: The possibility of re-use of the second floor (attic) areas will depend to a large extent on the fire safety design of the proposed works. Achieving the means of escape from these areas, which comply with the building regulations may not be possible and those areas may have to be left unused or used only for storage of (unavoidably) removed historical material maintenance or other purposes with occasional access only and for staff members or maintenances personnel.

Wall insulation:
The convent's external walls are solid masonry walls. Masonry walls had advantages in heat retention and 'slow release' of the heat, when permanently warmed by ongoing open fires. The thermal mass of thick masonry walls was also exploited to retain heat gained during the day from the sun.
Methods of insulation of the walls include internal dry-lining (insulated plasterboard), external insulation systems, and specialist internal application of lime render with insulation properties. All of these methods would impact adversely on the fabric of the building, covering up existing fabric, mouldings fixtures and fittings and affecting then historical window joinery etc., with further risks of interstidial condensation behind any dry-lining, therefore it is likely that they would not be appropriate in the convent building. Further investigation is required, and some wall insulation may be possible in some rooms, but to achieve the required levels of comfort, heat retention and economies, it may be necessary to increase other areas of insulation as compensation measures, and allow restoration of the walls.

Floor Insulation
The ground floors of the convent are 'suspended' floors, i.e., timber floors on timber floor joists on low walls, and having a deep cavity under the floor level, with a rubble or clay floor below, which is also below ground level. Insulation can be introduced between the floor joists but access to the underfloor or removal of floorboards is required.

Windows: heat loss
Immediate and long-term works to the convent will include works to the historical windows. Immediate works include replacement of historical glass where panes have been broken through vandalism. But long-term general repairs will also be necessary. To preserve the character of the historical windows replacement single-glazed historical glass, as described

above, is the most appropriate solution, though single glazing allows substantial heat loss from the interior. Various secondary internal glazing solutions are available that will form a cavity between the old windows and the new glazing, and therefore reduce the heat loss. However, the systems will affect the internal character of the rooms and may be difficult to achieve in an appropriate manner especially at window shutters and joinery.
Draughts at the windows result in heat loss and are uncomfortable. Overhauling the windows by carrying out any necessary repairs and ensuring that the sashes or opening lights operate properly within the frame is the first step in reducing draughts. A window that is in good working order can be fitted with draught-proofing strips, but only such products whereby works to the window fabric is avoided.
The window shutters were originally designed to provide some heat retention as well as privacy and the shutters should be re-used at night. The shutter boxes are also a source of draughts and should also be sealed around the edges to eliminate the draughts. Internal linings designed for the internal side of the shutters should also be investigated.
Blinds or heavy curtains, which could be given an insulated inter-lining, when used with the shutters will further improve heat retention; there are specially designed thermal blinds available which can improve on this again.

Insulation of services
Most of the water and heating services will be new and lagging of water tanks, and insulation of pipework should be possible as required.

**25. Ventilation and Draught Proofing**
General
Traditional building such as the convent were intended to be ventilated by the daily manual opening and closing of windows and doors, with further ventilation provided via open fireplaces, and general natural ventilation through the fabric including under doors.
Adequate ventilation is essential to the conservation of the building fabric and its proposed uses.
Building Regulations will require that a material change of use of the convent building has the required levels of purge ventilation (openable doors/windows) and natural ventilation (including ventilation openings in walls and/or trickle vents in windows). Neither of these ventilation measures are evident at the convent.
Mechanical ventilation is also required to certain areas such as WCs. Lack of ventilation causes mould growth in unventilated areas especially areas where condensation occurs. Wet rot and dry rot can also be exacerbated by the lack of ventilation and can cause damage to historical fabric, especially timber fabric.
A detailed study of the existing ventilation should be carried out and an appropriate and challenging overall ventilation design will be required. Thermal imaging and airtightness tests will be used to identify potential problems with the building's fabric. Any system should be appropriately designed for the use of the protected structure, and installed in accordance with the best conservation principles in regard to preserving the existing and restored fabric.
When insulating the roofs, ventilation must be retained to roof spaces to protect the roof timbers and any insulation proposals must ensure sufficient ventilation is provided. Various methods to introduce new vent at the roof space are available but it would existing vents or eaves ventilation should be retained.
Underfloor vent opes at the external walls appear in working order though some vents may be under the recently raised tarmac areas

Mechanical Ventilation:
Mechanical ventilation is normally required for sanitary facilities, and may be provided to other spaces and functions where required. In a structure with historic fabric mechanical ventilation systems normally necessitate interference to the walls and ceilings of the historic structure and can materially affect the character of the rooms.

Heat Recovery Ventilation:
A Heat Recovery Ventilation (HRV) system should be considered for the convent or parts of the building. Heat recovery systems have efficiencies as high as 90% and are commonly used in Ireland. These can be ducted or non-ducted and can deliver savings in heating costs by recovering heat from the exhaust air to provide tempered fresh air in lieu of cold fresh air. The energy savings far outweigh the costs of running such systems.

**26. Fire Safety**
The most onerous implications for the proposed Material Change of Use and the proposed uses at the convent will be the requirements of TGD Part B – Fire Safety.
A Fire Safety Certificate will be required for all long-term proposed works. For first phase works discussions with the fire officer will be required to determine of a Certificate is required, but it is intended that the first phase works are not a *Material Change of Use* or *Material Alteration.*

Principles of Fire Safety:
The primary objectives of fire safety in a historic building can be summarised in the following order:
- To safeguard life;
- To minimise damage to the fabric;
- To protect the contents.

Department of the Arts, Heritage and the Gaeltacht DoAHG - *Protection Guidelines for Planning Authorities'*: *Fire safety design solutions should impact as little as possible on the important elements and fabric of a protected structure. In principle, there should be minimal intervention into the existing fabric of the protected structure, and alterations which impact on important fabric should be readily reversible.*

Technical Guidance Document Part B: *Fire Safety* of the Building Regulations details a building's requirements in regard to the fire safety and escape of its users in the event of a fire. Any proposed uses must be designed in accordance with the Regulations in a manner appropriate to the Protected Structure and the need to retain historical fabric.

The proposal for residential accommodation at first floor presents the most challenging aspects, due to the strict regulations in relation to escape from fire for residential use (*Purpose Group 2(b): Other Residential*). The proposed uses at ground floor are also subject to a number of onerous regulations requiring works which will impact to different degrees on the historic fabric. The requirements include:
- Protected stairwells, enclosed in fire rated construction and discharging directly to the external
- Separation of circulation routes from protected stairwells;
- Closing off of the existing stairs at ground floor to limit spread of smoke to the first floor areas;

- Compartmentation including the fire rating of walls, ceilings, floors, doors, roof spaces and service passages
- Fire rated walls between bedrooms;
- Limits on the allowable distances of escape routes to protected stairs and final exits;
- Limits on the numbers of persons in certain areas;
- Protected corridors with fire rated walls and fire doors;
- Subdivision of corridors;
- Requirements for ventilation including automatic vent opes at protected stairways.

(Note severe potential impacts of compartmentation, new fire stairs at east block, protected corridors and fire doors - see notes below).
Requirements for existing buildings however may be eased by providing alternative measures and early discussions with the Fire Officer is essential to agree the measures prior to final design. Technical Guidance Document Part B: *Section 7: Existing Buildings: 7.0.2.2: Compensating Measures:*
*Where compensating fire safety measures are proposed, the nature and extent of such measures will depend on the circumstances in each particular case. However, such measures could include some or all of the following:*
- *enhanced levels of life safety protection by automatic fire detection and alarm systems; or*
- *reduced travel distances; or*
- *enhanced building systems to aid evacuation; or*
- *enhanced smoke control measures; or*
- *pressurisation of stairway enclosures; or*
- *protection to escape routes from places of special fire risk; or*
- *enhanced performance of fire doors; or*
- *additional structural fire protection measures, such as increased levels of compartmentation of the building (see Section 3); or*
- *automatic fire suppression and extinguishing systems; or*
- *significantly increased room heights; or*
- *additional facilities for firefighting, e.g. dry risers.*

*This list is neither exhaustive nor in any order of preference. It is indicative of the range of options that may be considered.*

A detailed and specialist fire risk assessment, including assessment of the fire rating of existing walls, floor, ceilings and doors, should be carried out prior to any long-term works that would require planning permission The likelihood of fire can be reduced by the identification of risks and their elimination or by the management of those which cannot be eliminated.

For the proposed first phase works allowing access and use of the building by members of the public, and the re-use of the chapel and main hall, consultation with the Fire Officer should be done in order that any proposals for re-use are approved, and a Fire Safety Certificate application may not be required.

**27. Universal Accessibility**
General
Any proposed use should be designed in accordance with Technical Guidance Document Part M of the Building Regulations: *Access and Use* (which includes for persons with disabilities). The requirements of Part M aim to ensure that regardless of age, size or disability, buildings are accessible and usable. Achieving compliance with Part M will be a challenge in terms of appropriate conservation led design. Any new proposals must include for universal

accessibility throughout the parts of the building proposed to be used, and without any segregation for persons with disabilities. The requirements include:

- Accessible access and egress at the building;
- Accessible level entrances, avoiding the need for separate wheelchair entrances;
- Accessible circulation through the whole interior;
- Accessible sanitary facilities;
- Accessible bedrooms;
- Fixtures and fittings to aid universal accessibility.

Requirements for existing buildings however may be eased by providing alternative measures and early discussions with the Fire Officer is essential to agree the measures prior to final design. Technical Guidance Document Part M: Existing Buildings: *In the case of material alterations or change 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.*

Access to the building and building entrances

The regulations stipulate that vehicular access is allowed to the main entrance areas of the building, and an area level with the building floor level is provided to allow ease of entrance. The convent entrances have one or two steps, depending on the entrance, therefore alterations, suitable ramps or mechanical wheelchair lifts will be required to allow ease of access and egress for persons with disabilities. Relocation of stone steps and low walls may be required as per proposed plans. Suitably wide entrance doors are required that are easy to navigate in access and egress. The convent doors are quite wide but an automatic system may be required to allow ease of opening.

Circulation within the building

The general ground floor is level throughout the historical plan; however, the floor levels of the modern extension raise at the ground floor by 300mm and drop at first floors by approximately 1.2m and ramps and steps address the changes in levels respectively.
The remaining building interior is generally appropriate at present for the circulation within the building of persons with disabilities including the presence of a lift, adjacent the chapel and the main stairs. Numerous works are required to comply with regulations. The lift should, be inspected in relation to the requirements of the Building Regulations, and it is likely that a new lift will be required.

Accessible sanitary facilities

The provision of sanitary facilities in accordance with the Building Regulations will be required for any proposed short-term or long-term uses. The addition of accessible WC rooms will require alterations to existing fabric and any design, which if located in the historical parts of the building must minimise such alterations to avoid adverse impacts to the historical fabric.

Accessible bedrooms

The proposed residential first floor should include for accessible bedrooms which require more space than other bedroom layouts.

Fixtures and fittings
TGD Part M *Access and Use* of the building regulations includes for a range of powered and non-powered fixtures and fittings to aid the universal access and use of the building. The extent of the fixtures and fittings required will depend on the final design proposals for the building's use. Part M of the Building Regulations also include for the correct detailing of accessibility related structures, materials, surfaces and services and these should all be addressed and designed in a manner appropriate to the protected structure. Consultation with the local enforcement authorities and planning authority in this regard may be necessary.

Disability Access Certificate (DAC)
For First Phase proposals allowing access and use of the building by members of the public, a Disability Access Certificate (DAC) application may not be required if a Material Change of Use is not proposed. However long-term proposals involving Material Change of Use and any works that require a Fire Safety certificate will also require a Disability Access Certificate.

**28. Proposed Works with Potentially Adverse Impacts**
The following is a (non-exhaustive) list of works which, if required, could adversely impact the special interests of the structure: (Note: mitigation measures to deal with the potential adverse impacts are listed in the next section).

General repairs to the historic fabric:
- All repairs to the fabric, including the removal of broken or inappropriate materials, fixtures and fittings can adversely interfere with the historical fabric at the relevant area;
- Broken glass replacement causes loss of historic glass.
- Repairs to timber and other historical fabric items can result in the loss of sound fabric along with the denuded materials.

General restoration work:
- All restoration works involve the risk of inappropriate works which can cause loss, inappropriate alteration or other damage to the historical fabric and special interest of the structure.

Repairs, replacement and introduction of new sanitary areas and services:
Existing services exist throughout the fabric of the building and site. Short-term and long-term proposals will require substantial works to the services and the installation of new sanitary facilities and services throughout. The works carry substantial risks of adverse impact to the special interests.

New works within the building to achieve the required fire safety standards including:
- Works to upgrade floors to the standards required for fire compartment floors, requiring the removal and refitting of historical floors in order to treat the areas between the floor joists;
- Works to upgrade walls to the standards required for fire compartment walls, requiring the construction of new partition walls or linings beside the historical walls;
- Possible requirement for fire rated suspended ceilings;
- Use of a sprinkler system, which installation will impact on the historic fabric, and which when activated can damage the fabric within and adjacent the relevant area

- In order to achieve the permitted escape distances in both directions at the first floor residential areas at the south and east block, a new stairs escape stairs is required. The proposal shows this stairs in the optimal position as regards fire safety, i.e., at one of the principal rooms at the east block, and beside an exit door. This new fire escape stairs is within the historic structure requiring new openings to historic fabric including ceilings, roof spaces over, floors, internal walls and external walls, and would cause loss of character of one of the foremost rooms in the building.
- Possible new smoke lobbies at existing stairs;
- New fire doors, with associated side and top panels to subdivide the corridors; new internal fire lobbies at certain areas as required to prevent spread of smoke, all requiring fire sealed connections to the historic fabric;
- Where protected corridors and fire doors an upgrade of the doors or replacement with fire doors will be required;
- The requirement for some doors on escape routes and the final exit doors to open outwards, in the direction of escape, can require the reversing of the door leaves to open outwards but reversal this can damage the character of the historical doors;
- The requirement for 'easily opening devices' on all doors will impact the fabric of the historical doors, and the use of keys to lock the doors from inside will be prohibited, to avoid entrapment of person within the room or corridor in the event of a fire;
- New paint and other finished to walls and ceilings to achieve the required fire rating of the surfaces, may impact on historical paint finishes;
- New fire alarm system requiring the installation of new electrical services and unsightly detectors, alarms, control panels etc.;
- Works to final lobbies and final exits requiring the reversal of door opening directions to open outwards, widening of door openings;
- New fire escape signage.

New works within the building to achieve the required universal accessibility standards including:

- New accessible sanitary facilities requiring the alteration and removal of some historical walls, and damage to related historical fabric;
- New electrical services and signage causing interference and damage to the fabric;
- Raised handrails and guardings, as required, or new handrails and guardings, at existing internal and external stairs, steps, causing interference with existing ballustrades etc.;
- New ventilation openings to the stairwells required, causing openings to be required in the wall or roof fabric;
- Cavity barriers in the roof spaces will require sealed connections on all sides with the existing fabric;
- New lift, if required, to provide access between floors for persons with disabilities causing the removal of historical floor fabric;
- The requirement for a ramp or mechanical lifting device to allow wheelchair access to the stage area;
- New external ramps for wheelchairs access if required will impact the elevations and setting.

Ventilation of the building:

- Works will be required to comply with the building regulations.
- Refurbished windows, blocking of fireplaces and general refurbishment may reduce the existing natural ventilation to the building causing adverse impacts to the historical fabric;

- General refurbishment may reduce the existing natural ventilation to the building therefore alternative ventilation measures may be required to compensate.
- The existing ventilation even if it were maintained is unlikely to comply with the requirement of TDG F: *Ventilation* of the Building Regulations. Therefore, additional methods of ventilation will be required. These measures may include:
  - Ventilation of stairways;
  - General mechanical ventilation with associated ducts and fittings, resulting in damage to historic ceiling and wall fabric;
  - Exhaust ventilation of open stage area;
  - General natural ventilation requirements throughout the building.

New works within the building to provide sanitary accommodation, and other ancillary functions requiring the conversion of some rooms for these purposes.

Works to building entrances/exits:
Requirements for level entrance areas may require construction of ramps and relaying of stone steps and low stone walls (southern entrance).

Works to the modern 1980s extension:
- Alterations will be required to the extension, including removal of block walls; construction of new block and partition walls; installation of mechanical and electrical services.

Works to the grounds:
Proposed new works to the site areas including new landscaping, hardstanding areas, accessible entrances, new paths and new services can result in works that are inappropriate to the setting of the protected structure.

**29. Measures to Mitigate the Impact of the Proposed Works**
The following is a list of criteria to be used in the design of any proposed works, and which should serve to mitigate the impact of any proposed works on the significance, special interests, historical fabric and setting of the protected structure:

<u>Re-use of the buildings and site</u>
Non-use of the building or parts thereof is the main threat to the fabric, significance and importance of the historical building, causing redundancy and neglect. The building is not maintained and a level of heating has not been maintained throughout. It is intended that as much of the building as possible will be re-used, commencing with short-term first-phase proposals as soon as possible. This re-use will keep the building heated, ventilated and maintained. Any areas that cannot be re-used, or may not be re-used in the short-term should maintain a level of heating and ventilation that will mitigate against the deterioration of the fabric. The proposed long-term uses of the building site will also help to arrest ongoing issues with site trespass and vandalism.

Note: The Draft Final Design layout will include residential accommodation which will require fire compartmentation works and possible new fire escape stairs works, which will adversely impact the historical fabric. The residential use however will provide added benefits to the building including continuous occupation and security.

<u>Urgent repairs to roofs, rainwater gear and windows</u>

Urgent repairs to roofs, rainwater gear and windows to stop water ingress, provide daylighting and ventilation and allow drying out thus arresting the severe ongoing deterioration of parts of the building and protecting the surviving fabric and allowing the works to commence for re-use of the building.

Comprehensive conservation-based repairs
Long-term proposals include comprehensive conservation-based repairs to the whole building and site where required, arresting ongoing deterioration and ensuring longevity of the historical fabric.

Removal of modern walls, fixtures and fittings
Long-term works should include for the removal of modern partitions, doors and other features, where appropriate, and that any new floor plan layouts should be made to work within the original room layout, if possible, in order to revert towards the original layouts and to maintain the architectural special interest of the structure.

Maintaining the chapel for religious services
The use of the chapel for ongoing and various religious services will preserve the historical and social special interests.

Maintaining the exiting decorations
Preserving and restoring the existing historical decorations and craftwork at the chapel and throughout the building will preserve the artistic special interest.

Ongoing maintenance
Lack of maintenance, heating and ventilation can lead at exacerbating rates to deterioration and loss of historical fabric. Ongoing maintenance of the whole structure, including areas that may not be used, is essential to reservation of the historical and other fabric (See Maintenance section below).

Research and analysis
The primary aim is to retain and recover the significance of the convent building, and any works proposals whether immediate or long-term should be based on a detailed understanding of the building and its historical development. This understanding will mitigate against the need for future works to remove inappropriate works and to maintain that significance.

Expert conservation consultancies
All works affecting the fabric of the convent should be designed, procured and overseen using conservation professionals, who will design the proposals in accordance with the conservation principles.

Expert conservation building professionals
Experienced conservation contractors, especially those with experience specifically relevant to the convent building type, will understand the conservation principles and the methods for mitigation of damage to the fabric while carrying out the works to the convent.

Minimum intervention
All proposed new works and repairs to the existing fabric must prioritise the retention and protection of the historical fabric. No such fabric will be removed or interfered with unless it

is absolutely necessary, with each situation requiring approval from the conservation consultant. The convent building's antiquity and the worn appearance of old features and some finishes contributes to the significance of the structure. Ensuring that interference with, and replacement of fabric only will occur when absolutely necessary will mitigate against unnecessary loss of historical fabric.

Use of quality and appropriate materials and methods
New works and materials used should be of sufficient quality and appropriate to the historical fabric adjacent in order to ensure the long-term survival of an old building, and to mitigate against the need for reconstruction and repairs in the future.

Respecting earlier alterations of interest
Some of the additions and alterations which occurred later than the main construction of the historical parts of the building may contribute to the character and integrity of the convent and may be retained. Any fabric to be removed for the works, should only be removed after research and informed judgements, and each case should be studied and approved prior to the works. This will mitigate against the need for further restoration works to the historical fabric which may be required after the removal of such additional fabric.

Ensuring reversibility of repairs and alterations
Any design proposals must be carefully developed to respond sensitively to the existing interior and exterior, and to minimise any adverse effects on the historic fabric. Alterations which impact on historical elements of the building should be capable of being removed and reversed.

Use of high-quality materials for new works
Some new walls, door and other new fabric when constructed using materials of high quality, e.g. glass walls that contrast favourably with the existing historic fabric adjacent can provide appropriate design that lessens the adverse impact on the character and special interest of the historical fabric adjacent.

Careful planning of the location of new uses within the building plan
Different uses can have different fire safety criteria including distances of escape routes required, requirements for protected corridors and fire doors, requirements for outward opening doors. These fire safety requirements and their implications to the special interests of the structure should be carefully considered prior to final decisions regarding their locations within the building, as some locations will have less potentially adverse impacts on the historical fabric.
The location of the proposed uses should also be considered in relation to the existing building plan and layout, with some uses being more appropriate including the use of bedrooms at first floor cellular spaces.

Discussions with the Fire Officer
*TGD Part B Fire Safety* of the Building Regulations:
*Existing Buildings In the case of material alterations or 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.*
Section 7 of TGD B also details a number of measures of compensation allowed in an existing building. Discussions with the Fire Officer at an early stage of the design will be required to agree measures to reduce the potential adverse impacts of the fire safety requirements. Compensation measures (such as sprinkler system) may allow the reduction of the requirements including:

- New protected stairs at eastern block is required to satisfy the requirements of the regulations;
- Alterations to fire doors;
- Various fire rating works to walls ceilings and floors, services etc.

Compartmentation (Fire Safety)

The proposed uses will require some compartmentation of the building, which will necessitate that areas of different uses must be separated from each other by fire resisting walls and floors.

- Corridors at first floor will need to be protected corridors with fire resisting walls to underside of the roof structure, and fire doors throughout; walls and doors between compartments will require minimum 1 hour fire resistance.
- Separate compartments and protected corridors may be required for buildings with different purpose groups, e.g., at convent ground floor and for protected stairways. However, agreement with Fire Officer may be possible to allow a single purpose group of *Assembly and Recreation* at ground floor, which would encompass the various ground floor uses, thus avoiding the need for extensive works to the historical fabric there.
- Different purpose groups would require separated escape routes with onerous new works associated. Therefore, ideally, the total first floor will be *2(b) Other Residential* purpose group allowing the floor to be one compartment only. The proposed uses where possible should be under one management/organisation and acceptable as such to the Fire Officer.

All of the above will require works to the historical fabric which can adversely impact the fabric. Expert advice will be sought to establish the fire resistance of the existing walls, doors and floors, so that a minimum level of new works is required. Consultation with the Fire Officer will be essential to agree any alternative approaches.

New protected stairs

Draft long-term plan layouts at first floor requires that a new protected stairwell be located at the eastern block, requiring the removal of historical floor fabric and various works to the fabric adjacent, in important front rooms. The plan layout should be discussed with the fire officer in order to use compensation measures to avoid the need for a stairs in this location, but if required the stairs should be designed to affect as little of the fabric as possible. Any fabric to be removed should be stored within the building to allow reversibility.

Sprinkler systems

Properly designed, a water-based sprinkler system provides the highest possible assurance against significant fire damage to buildings and their contents.
Sprinkler systems can operate such that the fire's starting point is extinguished, rather than the activation of the whole systems (as occurs with a fire alarm system).
A sprinkler system for fire suppression at the whole building or at the residential first floor can allow easing of other fire safety requirements and may, for example, enable existing doors to be retained without alteration, as a carefully positioned sprinkler head may enable

even a non-fire rated door to withstand the effects of fire for the duration required to extinguish the fire. Any easing of the regulations will be dependent on the final decision of the Fire Officer.
The installation of the system and associated water storage will require works to the historic fabric and challenging, detailed design solutions will be required to minimise the adverse impact.

Treatment of historical doorsets
Where it is unavoidable that existing historic doorsets are required to be upgraded to fire doors, as in the case of those on protected corridors at first floor residential areas, the fire doors should be examined to establish their existing level of fire rating. If upgrading is required, as likely, the upgrading may be such that the character of the doorset fabric is severely affected to the level that the character and special interests of the doors is lost. In such cases an option may be used to remove the doorsets and store them safely in the building for possible future re-use, while replacing the doorsets with new fire rated doorsets, detailed to match the original doors.
Compensation measures such as installation of a sprinkler system, if appropriate may reduce the requirements for the upgrading of the fire doors.
Three existing doors in the corridors may need to be removed to allow ease of passage through in both directions for means of escape, if the doors cannot be appropriately altered to allow opening in both directions, and will be stored in the building.

Works to final exit doors
As final exit doors, and doors on the escape routes need to open outwards, when larger numbers of persons will escape from the building in the event of fire, the relevant doors can be maintained open with appropriate fixing, (e.g., during a concert or mass at the chapel) or the final exit doors could be automatically opened via a link to the fire alarm system. Careful planning and detailing are required, as well as the investigation of all other options but, if required, any such details, fixtures and fitting must be designed appropriately.

Discussions with the Building Control Officer
*TGD Part M Access and Use* (Universal Accessibility) of the Building Regulations
As per the quote from TGD Part B above, alternative approaches to the regulations may be allowed so that the final designs will minimize the adverse impacts of the proposals, therefore discussions with the Building Control Officer may allow for universal accessibility related works which reduce the potential adverse impacts of the requirements.

Design of new services
New electrical, fire alarm, heating, water services, sanitary services, sprinkler systems (see above) and any other services will be required throughout the building and will be provided with minimal intervention to the historical fabric and using methods that mitigate against loss of that fabric, including:
- Surface mounting of electrical lighting and fittings;
- Surface mounting of electrical services if appropriate;
- Surface mounting of all exhibits, signage, new displays and associated equipment;
- Re-use of existing openings, services and service openings for new electrical services, where possible and appropriate;
- using existing features, such as mouldings or balustrades, to conceal services such as pipework and cabling;
- Using alternative routes for services through voids under floors or above ceilings

- Minimal openings for new pipework if the new openings in the walls or floors are required;
- Use of wireless technology to avoid any new wiring attachments to the fabric. using wireless technology for controls that can remove the need for hard-wired connections, (however the heavy construction found in some of the walls in the historical building parts may limit the range and detailed signal strength and surveys may be required;
- Choosing accessible service routes and locations to easily allow future maintenance, repair and eventual replacement.

Historical fixtures and fittings

Historical light fittings, switches and any other historical fixture and fittings should be repurposed for re-use where possible, and preserved (even if they are not usable) ideally in-situ but where this is not possible, they should be carefully stored within the building.

Ventilation measures

A careful analysis of the existing ventilation levels should be carried out along with a detailed design of new ventilation measures that use existing fireplaces, existing openings and service ducts and pipes, maintenance plans for opening windows etc, to cause minimum interference with the historical fabric.

Use of the modern (1980s) extension

The modern extension should be carefully considered in terms of the overall short-term and long-term designs for re-use of the convent. The limited significance of the extension building could allow more intrusive works to the modern fabric, thus mitigating the need to carry out those works at the historical parts of the building. Such works may include: removal of block walls; removal of parts of floors and ceilings as required; construction of new block and partition walls; installation of mechanical and electrical services; Re-use of boiler room; installation of services ancillary rooms; provision of sanitary facilities including for universal access; new final fire escape doors; Roof mounted services related equipment using the flat roof areas.

Use of the inner faces of the courtyard roof for location of PV panels

To mitigate against visual impact of panels on the external elevations.

Use of an appropriate site area for location of PV panels

Ground based PV panel arrays may alleviate the need for attachment to the historical building.

Preservation of certain features

Some historic fabric may no longer be usable or practical in a modern setting, such as the commodes at first floor. It may be most appropriate to preserve the features in-situ.

Re-use of the kitchen

The existing kitchen is likely to have been the original kitchen, adjacent the main hall and main stairs and with large fireplace. Any new use proposal will require a large kitchen and as such it be should remain in this location and be appropriately restored. Some existing modern kitchen appliances could also possibly be reused.

Re-use of sanitary facilities

Existing sanitary facilities should be reused, even if modernisation of the fittings is required, thus reusing service opes etc. Any new design however should consider the preservation of timber panelling and detailing at the bathroom/shower on the first floor.

**30. Statement of Impact that the Proposed Works May Have on the Protected Structure**
This section addresses the impact of the proposed development on the historic convent building, a protected structure, its setting and the surrounding grounds.
The principal criteria for assessing impact are:
Policies and objectives for Built Heritage in *Mayo County Council Development Plan 2022-2028* and *Ballina (Draft) Local Area Plan 2024-2030;*
*Architectural Heritage Protection Guidelines for Planning Authorities: Guidance on Part IV of the Planning and Development Act 2000 (as amended).*

<u>The proposed works may be summarised as follows:</u>
1. First Phase Proposals:
- Immediate and urgent works to arrest water ingress, lack of ventilation, lack of daylighting; Repairs to areas severely damaged by the water ingress;
- Works to allow the reuse of the chapel and main hall, along with any required ancillary rooms (WCs, lobbies etc), and corridors, lobbies and final exits to allow universal access and escape in the event of fire.
- Introduction of access to the site and buildings for members of the public.
- General cleaning and basic refurbishment of areas intended for first phase usage.
2. Long-term Proposals:
- Repairs, restorations and new works to provide accommodation for a range of new uses to the whole convent building, gatehouse and related site areas.
- Introduction of further access to the site and buildings for members of the public.

The long-term works are draft proposals at this stage. The works will be carried out only after detailed feasibility assessments, final brief and detailed design for the structures and site. Therefore, it is not possible at this early stage to describe the exact final works proposed and the impacts of those works.

<u>The impact of the proposed works on the special interest values (significance) of the protected structure, elements of the protected structure</u>
The proposed works to the convent building will include urgent repairs, general repairs and restoration of the historical fabric, removal of inappropriate fabric, additional works as required to make the building and site function as per the brief requirements. Any works which could have adverse impacts on the significance of the protected structure must be designed and carried out to mitigate the adverse impacts and in accordance with the conservation principles.
Proposals will require various interferences and some loss of fabric. Larger scale work includes a new protected staircase in the eastern block, which if required could have a severe impact to the relevant proposed rooms which are of excellent architectural value.
The positive impacts of the proposals include re-using the building, re-using spaces with their original or appropriate functions, repairing and restoring the structures and grounds, residential use, provision of new community-based uses, religious services, and provision of public access. It is considered that these impacts should outweigh and reduce the adverse impacts which could occur.

<u>The impact of the proposed development on the setting and site of the protected structure</u>

The convent building is located in a mature landscaped setting, accessed from the main road through a predominantly residential area close to the town centre. The site is bounded at the main road, Convent Hill and McDermott St., by a high stone wall, and set on the highest part of the site with a gatehouse at the site entrance. The gatehouse is adjacent to the main site entrance and will be reopened for public access use.
The grounds will be refurbished including the removal of some tarmac areas in lieu of landscaped areas.
Loop type walks to be introduced through the site to include the nuns' graveyard at the rear.
Landscaping proposals may include the opening up of the vista from the east elevation towards the town, which may require tree removal to achieve.
The building and setting and will reopen for the community and public.
The works should not adversely impact on the special interest values of the protected structure.

Impacts during construction phase
The proposed works can be carried out safely within the confines of the site and should not adversely impact on the site or the surrounding areas.

**31. Maintenance**
'Maintenance' can be defined as 'routine work necessary to keep the fabric of a place in good order'.
*Maintenance and Repair of Older Buildings* - Historic England 2021:
***Maintenance*** *is cost-effective, the time and money spent on routine care, regular surveys and minor repairs protect the value of the building. Good maintenance also helps to ensure the health and safety of building users and the general public. Although it is often seen as mundane, maintenance forms a cornerstone of building conservation.*

Inspections carried out at regular intervals, coupled with prompt action to pre-empt or remedy problems, are the basis of effective maintenance. Maintenance and repair are needed to tackle the inevitable decay and deterioration of building fabric that occurs because of climatic conditions, wear and tear by building users, neglect, or other threats.
The convent building is in urgent need of repairs to arrest the severe deterioration to the building mainly caused by lack of maintenance or maintenance practices that would not be in line with the correct conservation measures for a historic structure. Maintenance practices used prior to the closure of the building were insufficient to protect the fabric. After the closure of the building in 2009 some maintenance measures including the closing up of the windows and doors have contributed to the deterioration of the building including lack of sunlight, condensation, lack of ventilation, mould growth and dampness, as well as damage to the historical windows and doors. The lack of maintenance has also caused severe damage to the fabric due to accumulation at the gutters, most prominent above the entrance porch at the chapel, which has overflowed continually and caused rotting and collapse of the porch roof, ceiling and floor below, and at areas of the modern 1980s extension roof.
Incompatible materials were used for repairs, including (possibly) the repointing of the external walls with cement-based mortars which causes retention of moisture within the walls. The long period of 15 years of non-use, lack of heating and ventilation has exacerbated the deterioration of the fabric.
*With the predicted rainfall increase in Ireland, particularly in the west of Ireland, the condition of the building is of concern.* (Martin Henihan, *Heritage Buildings, Increased Rainfall and Climate Change Adaption Report* 2023)

It should be noted that some of the damage and deterioration has been caused due to vandalism, break-ins and theft events.
Further information regarding Maintenance Categories, Maintenance Plans, Programmes, Inspections, Reports and Records can be found at *Advice Series - Maintenance: A Guide to the Care of Older Buildings* - The Department of the Environment, Heritage and Local Government.

**32. Health and Safety Considerations**
The building owner is responsible for ensuring that all works to the building including on-going maintenance are carried out safely and in accordance with best health and safety practice, reducing and eliminating risks to construction works, building users, and maintenance providers. Certain works require a Project Supervisor Design Process (PDSP) and a Project Supervisor Construction Stage (PSCS) and it is the responsibility of the building owner to employ competent persons to fulfil the roles. In accordance with the Health and Safety (Construction) Regulations 2013 *If construction work is expected to take longer than 30 working days; if the work involves more than one contractor (or sub-contractor); if there is a particular risk present on the project; if work will exceed 500 person days,* then the roles are required. It is likely that most of the proposed works at the convent including urgent repair works will require a PSDP and PSCS.
It is possible that the fibre slates at the modern extension and some of the main convent building roofs contain asbestos. Asbestos may also exist within the building in fixtures and fittings and building materials. A full asbestos survey of the building should be carried out before any external or internal works are carried out.

**33. Design Team**
A final brief of requirements is required for the works for both urgent and long-term proposals. Any proposed should ideally be carried out in the traditional manner of contract between the building owners and a main building contractor.
A design team of main consultants should be appointed, with conservation related experience in similar buildings, and including:
- Architect (minimum Grade 1 or Grade 2 RIAI conservation accredited architect);
- Structural Engineer;
- Mechanical and Electrical Engineer;
- Quantity Surveyor;
- Assigned Certifier and Design Certifier (Building Control (Amendment) Regulations (BCAR) 2014) (where the works require a fire safety certificate);
- Project Supervisor Design Process (PSDP).

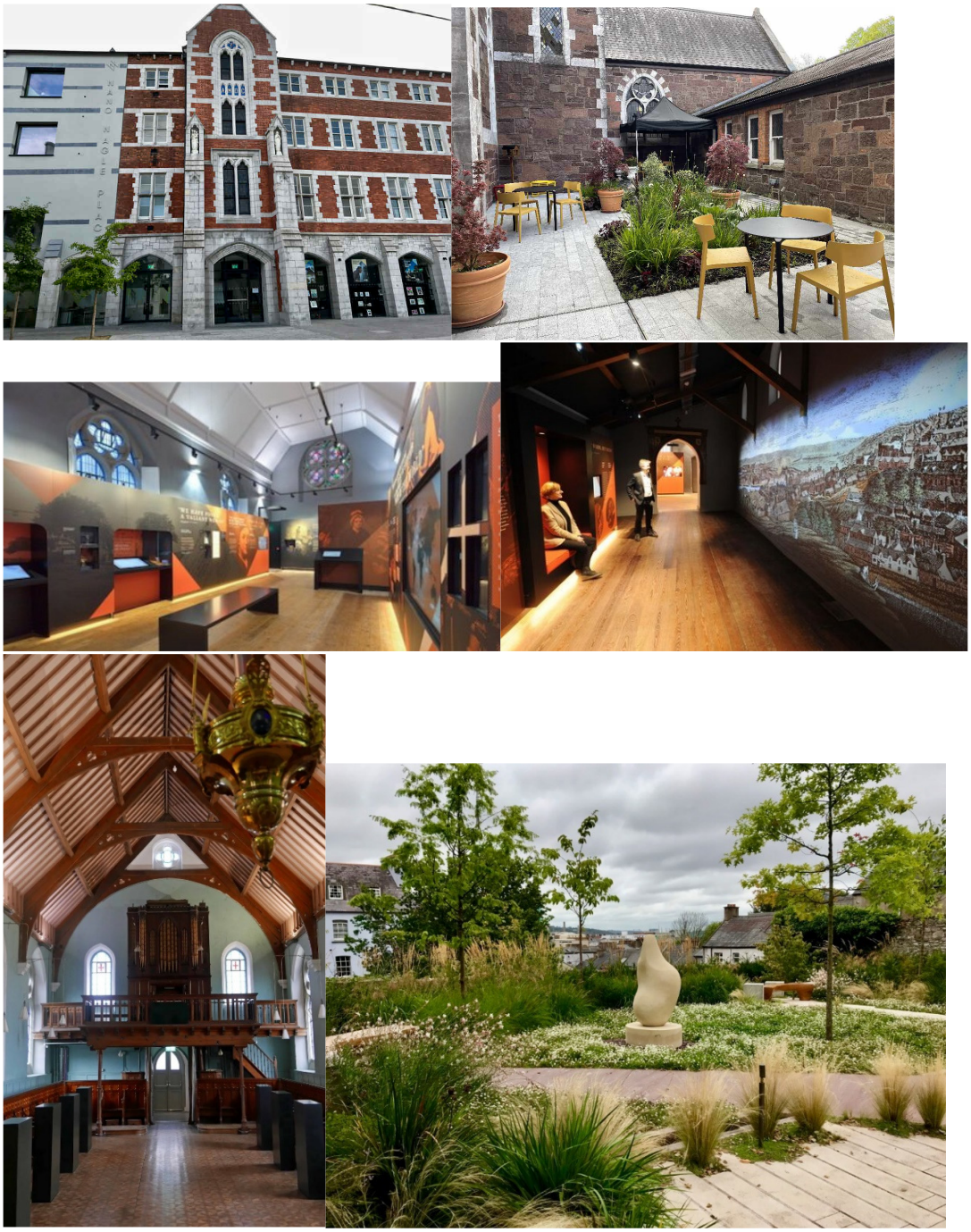
Further consultants may be required, depending on the complexity and nature of the proposed works, and should have conservation related experience in similar buildings. Consultants may include:
- Fire safety consultant, including expertise in the fire rating of surviving fabric;
- Building energy consultant with experience in Building Energy Rating, photovoltaic (PV) installation design, renewable and mainstream technologies for heating and electrical services, at similar historic structures.
- Airtightness tester;
- Thermal imaging consultant;
- Dry rot and wet rot specialist;
- Interior designer/display designer;

- Landscape architect;
- Historic paint specialist;
- Dampness specialist.
- Daylight harvesting specialist

**34. Examples of Similar Refurbished and Repurposed Buildings**

Examples of similar refurbished and repurposed buildings in Ireland.

1. Refurbished and repurposed convent building at Nano Nagle Place, Cork City



*Interior and external views at Nana Nagle Centre*

From Website www.nanonagleplace.ie:
*Nano Nagle Place is an unexpected oasis in the centre of bustling Cork City, a place that celebrates Nano Nagle's vision of empowerment through education, community inclusion and spiritual engagement for a contemporary world. The complex houses an award-winning museum, regenerated heritage buildings, walled gardens, a design shop & Cork focussed book shop and the wonderful Good Day Deli. The beautifully restored convent buildings are home to several community education projects.*
*The beautiful high Victorian chapel in the heart of Nano Nagle Place is one of Cork's most intimate venues. The chapel was designed by architect George Goldie in 1865 and retains the layout of a convent chapel with stalls ranged around the nave. The architecture is intended to enhance the sound of singing voices, making it the perfect place to hear a great choir in action.*

2. Refurbished and repurposed convent building, Carlow Town

*Carlow County Museum interior*

Carlow County Museum is operated by Carlow Town Council and Carlow County Council in association with the Carlow Historical & Archaeological Society. The museum gives a snapshot of the history and heritage of the county. The County Museum is housed in the former Presentation Convent on College Street, Carlow Town. The museum opened in 2012 after major renovations. The building is in a prime town centre location and is part of a complex that also houses the Tourist Office, the County Library and Archive.

3. Renovation of Cnoc Na Gaoithe Convent, Co. Clare, to Sustainable Cultural Centre


*Cnoc na Gaoithe front and rear views*

Conversion of Protected Structures Irish music and cultural centre with guest rooms.
From Cnoc na Gaoithe website: *The Sisters of Mercy donated the Tulla Convent and Primary School buildings to Comhaltas Ceoltóirí Éireann in October 2011. These buildings are being developed into the Cultural Centre, known as Cnoc na Gaoithe. Cnoc na Gaoithe (Windswept Hill), the Tulla Comhaltas Cultural Centre's mission is to promote, preserve and showcase the rich Irish traditions and culture of Tulla and the East Clare area.*

4. Moyderwell Convent of Mercy building, Tralee, Co Kerry, repurposed to care centre and residential base for the elderly (by Tralee Town Council and the HSE)

*Original front elevation of Moyderwell Convent (NIAH website)*

5. Proposed Residential Development at Convent of Mercy, Altamont Street, Westport, Co Mayo (on behalf of Mayo County Council, in partnership with TUATH Housing)

*Mount St. Mary's Convent of Mercy (NIAH Website)*


*Proposed Restoration elevations at Convent of Mercy, Altamont Street, Westport – MRL Architects*

Planning application (ongoing: Ref. PT8MO90) description:
*The development consists of the renovation and extension of the Convent of Mercy (Mount St. Mary's Convent of Mercy - Protected Structure Reg. Ref. 102, NIAH No. 31212176) to provide 18 no. apartments & communal spaces within. The extension will include new stairwells, lift core with connecting corridors located at the rear of the Protected Structure along with associated ancillary. The renovation works will include necessary part demolitions to facilitate proposed new layouts and including the removal of connecting porch, inner room, archway and linking walls to the adjoining Annex Buildings. The development will also consist of the provision of a communal garden, new footpaths and roads, necessary site clearance, site and civil works, the installation of new services and drainage with associated hard & soft landscaping, public lighting, street furniture, boundary*

*walls & fencing, siteworks, cycle & bin stores, infrastructure for statutory undertakers and car parking.*

6. Proposed Restoration and Adaptation of The Former Convent School in Ballyhaunis to a Community Hub

*Drawing from the design report published by Mayo County Council*

It is proposed to redevelop the former Convent school on Abbey Street for use as a workspace hub and to support local enterprise. The building will have a community learning space, craft workshop, canteen, artist studio and community activity space. The design brief also includes a new public plaza adjoining the building and a new pedestrian bridge connecting the plaza to the public swimming pool.
The outdoor recreational facilities will include play areas and an open-air amphitheatre.

6. Restoration and Repurposing of Former Convent of Mercy, Skibbereen, Co. Cork

*Proposed development (Meitheal Architects)*
The proposal will include multi-use development: Offices; Community Hot-desking Spaces; Apartments.

7. Mixed Use Redevelopment of The Former Convent Building and School, Dungannon

*(Proposed Design Drawing – Manor Architects)*

A public, community and interpretative space with event space which will include a restaurant and function room, a parish office, archive store and library facility.
General office space will also be created with the existing chapel to be retained for occasional mass services. Permission has also been granted for the creation of a nursery and crèche facility on site.
The ancillary spaces and surrounding curtilage will be redeveloped to provide gardens, interpretative space and car parking plus a waste water treatment plant.

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## APPENDICES

APPENDIX A. - Plan Drawings of Existing and Proposed; 3d Drawing Survey
APPENDIX B. - Plan Drawings Proposals
APPENDIX C. - Photographic Survey, with Plan Reference Drawings
APPENDIX D. - Cost Estimates

ADDENDUM - JULY 2024: TENDER FOR HISTORIC STRUCTURES FUND (HSF) WORKS: SPECIFICATION AND DRAWINGS

## ADDENDUM - JULY 2024: TENDER FOR HISTORIC STRUCTURES FUND (HSF) WORKS: SPECIFICATION AND DRAWINGS

On 8th April 2024 some € 50,000.00 were granted by Mayo County Council as part of the Historic Structures Fund (HSF). Further detailed investigations of the site and fabric were carried out for the purposes of the funding application and subsequent tender documents as issued in July 2024, and some minor variations to the above report methodologies are included.

The Specification document is attached below and the following drawings are also attached to the report:

PL750-105 - HSF - WORKS TO ROOF - PLAN
PL750-106 - HSF - WORKS TO RAINWATER GEAR - PLANS
PL750-107 - HSF - WORKS TO ROOF AND RAINGEAR - ELEVATIONS
PL750-108 - HSF - WORKS TO WINDOWS - ELEVATIONS

CONVENT OF MERCY OF THE IMMACULATE CONCEPTION
MCDERMOTT ST.
BALLINA
CO. MAYO
PROTECTED STRUCTURE NO. 10, MAYO

PROPOSED CONSERVATION-BASED REPAIRS TO A PROTECTED STRUCTURE

**SPECIFICATIONS/METHODOLOGIES FOR THE WORKS**

JUNE 2024

Coleman Architects
Pearse St. Ballina Co. Mayo
Vincent Coleman FRIAI
Conservation Grade 2

INTRODUCTION

The works to the Convent of Mercy of the Immaculate Conception McDermott St., Ballina, Co. Mayo are proposed to arrest areas of water ingress which is causing ongoing deterioration at various parts of the building fabric. The following is a summary of the proposed works:

A. ROOF REPAIRS

- Repair slipped slates and areas of missing slates
- Missing slates section – chapel apse roof
- Repair slipped valley gutter
- Repair chapel porch roof

B. WORKS TO RAINWATER GEAR

- Refurbish surviving cast iron gutters.
- Refurbish existing cast iron downpipes and hopper heads.
- Replace damaged sections of aluminium seamless guttering with cast iron gutters to match original gutters.
- Replace sections of existing cast iron downpipes to match original.

C. WORKS TO WINDOWS

- Repairs to sash windows including replacement of broken (clear) glass panes at various historic sash windows with salvaged historic glass sections to match existing.

CONCISE DESCRIPTION OF THE STRUCTURE

Detached eleven-bay two-storey convent with attic, on quadrangle plan. Historic sections were a H shaped plan built in two phases, commencing 1867 and completed 1889, with modern extension to close the quadrangle completed 1980s. Two-bay (six-bay deep) two-storey gabled projecting end bays centred on single-bay full-height buttressed gabled breakfront. Historic sections have pitched slate roofs on neo-gothic style limestone blocks with various timber sliding sash and stained-glass windows.

Plan form generally of cellular blocks with large ground floor chapel with projecting apse. Most historic fabric survives but aluminium gutters replaced most original cast iron gutters and cement pointing replaced lime-based pointing. Building now unused with overgrown landscaped courtyard and hardstanding to external surroundings. Set in mature landscaped gardens with various detached convent and school related buildings.

CONSERVATION METHODOLOGY

All works will be subject to final approval from Mayo County Council.

Conservation Principles: All works to be carried out in accordance with best conservation practice, as defined by the International Council on Monuments and Sites (ICOMOS) in the Venice Charter of 1964, and in subsequent charters. The following basic principles to be adhered to at all times.

- Conservation work should be based on an understanding of the building and its

historical development, and the primary aim should be to retain and recover the significance of the building.
- Any alterations to be carried out in accordance with the principle of 'minimal intervention'.
- Repairs to original fabric should always be favoured over replacement. Where replacement of an original element is unavoidable, this should be done using historically accurate detailing and materials.
- Where lost elements must be reconstructed, these should aim for historic authenticity and avoid conjecture in as far as possible.
- Modern interventions should be reversible and if appropriate visually identifiable. New work should be recorded.
- Works should be carried out by suitably skilled craftspeople with proven expertise in their trade working with historic buildings.

CONSERVATION ARCHITECT AND APPROVED CONTRACTOR

All work as specified to be carried out will be under the direction of the conservation architect, accredited by the RIAI at Grade 1 or 2.
Works to be carried out by an approved contractor(s), specialised in similar conservation-based repair works.
The conservation architect to inspect the works and meet the contractor on site including at the following stages:
- Briefing meeting with contractor at inception of the works and once scaffolding is in place before any stripping out occurs;
- Inspections at suitable stages during removal of slates, cast-iron gear, window sashes, to review condition and any uncovered material;
- Inspections during the course of works to include review and approval of sample profiles, cast iron, slates, timber samples, etc. including workshop visits as necessary;
- Inspections of completed works.

TENDERER SITE VISIT

The tendering contractor and any specialist subcontractors must visit the site and inspect the relevant works areas prior to tender submission, as per the tender preliminaries' requirements.

HEALTH AND SAFTY (CONSTRUCTION) REGULATIONS

All proposed works to be carried out in accordance with Health and Safety (Construction Regulations 2013) as detailed and agreed by the Project supervisor Design Stage (PSDP) and the Project Supervisor Construction Stage (PSCS).
It is proposed that the main contractor will also act as PSCS.
The works proposals and construction site areas to be agreed, approved, and in accordance with the Regulations prior to the works. A detailed methodology for all proposed works including PSCS proposals for Health and Safety will be agreed with the conservation architect prior to commencement, and may be updated during the works as required.

A Preliminary Health and Safety Plan and Design Risk Assessment is attached to the tender.

SPECIFICATIONS and METHODOLOGIES

A. ROOF REPAIRS

To be read in accordance with dwg. PL750-105, PL750-107

A1. SLIPPED SLATES

**General**

10 no. slipped slates are evident on the main roofs and all are quite isolated with single slippages in each case.

Every effort must be made to reuse the slipped slates in each position. If the slates are beyond repair a slate to match the existing in size and provenance, colour, texture and thickness should be sourced. Some local reputable sources may provide similar slates as is likely due to the small amount required. It is also possible to source the original slate quarry and have new slate made up for the purpose, but this may not be necessary or feasible. There are alternative methods for re-fixing slipped slates and agreement will be made with an experienced conservation roof-work tradesman and architect for the ideal solution depending on the practice of the tradesman. Slipped slates can be readily re-fixed by the use of lead or stainless-steel hooks, or using proprietary fittings or secret fixings.

A2. MISSING SLATES SECTION – CHAPEL APSE ROOF

**General**

Approximately 20 no. missing/broken slates are evident on the south section of the apse roof. The affected section requires slate removal of adjacent slates and to the top of the roof; removal of existing battens; removal of existing felt layer; refixing of a new section of breathable felt, with new treated sw battens to match the existing over. Replacement slates to match the existing in size and provenance, colour, texture and thickness should be sourced. Some local reputable sources may provide similar slates as is likely due to the small amount required. It is also possible to source the original slate quarry and have new slate made up for the purpose, but this may not be necessary or feasible.

*Area of slate loss at chapel apse roof*

*Close-up of slate loss at chapel apse roof*

**Slate removal**

Some slates adjacent to the area of slate loss will require removal for refixing in order to re-slate the affected area. Extreme care therefore must be taken when removing the existing slates.

All slates to be reused should be numbered, sorted and separated in accordance with their sizes and positions on the roof to be ready for relating, and should be safely stored vertically on edge on the scaffolding to avoid double handling.

Conservation architect to inspect all slates once removed. Samples of slate to make up for broken or severely denuded slates to be agreed with the architect before use, and will match

existing as close as possible. Slates to be laid to exactly match the original laying pattern using slates of the same shape as the originals. This includes number of courses and their sizing.

**Flashings**
Check condition of all existing lead flashings. On inspection the flashings appear to be in good condition, but it may be necessary to replace with minimum code 5 lead flashings to match existing sizes and detailing exactly. Existing leadwork appears to be of good quality with sufficient counter flashings and detailing. However, some or all leadwork may need repair or replacement following closer inspection.

<u>New felt and battens</u>
New breathable membrane and new battens may be required at affected area, i.e. to the full width and height of the affected roof section. Remove all affected slates and battens. Remove some of the existing felt layer, but leave part of the layer, 300mm wide, at ridge area and at the lower part of the affected area to allow overlapping by new breathable felt layer. A breathable felt, to be agreed, to be applied and should overlap with existing felt using appropriate adhesive or other fixings to be agreed.

**Slate refixing**
Any debris at underside of slates to be re-used must be removed with stiff wire brush and hosed so the slate can sit properly when re-used.
Refix all slates as per original layout, using copper slate nails with large heads in newly formed holes if required, using the appropriate slating hammer.
Inspect existing ventilation available at eaves and ensure continuing ventilation on future.

A3. REPAIRS TO VALLEY GUTTER – EAST ELEVATION

*General view and close-up view of slipped valley gutter*

**General**

A section of lead valley flashing on the east roof elevation has slipped and caused ongoing water ingress to the accessible attic room (with exposed king-post trusses), and important rooms below where the first-floor floorboards have rotted.

It is estimated that 2m of lead valley and of timber substrate, below the damaged area, may require removal and replacement, due to the possibility of the substrate being rotted to an extent of 2m under the damaged section.

This will require the replacement of the small section of lead below the damaged area and the next section of lead below. However, after inspection of the opened-up area only the minimum replacement of timber substrate and lead will be allowed, to achieve the repairs.

Remove slates where necessary at each side and retain for re-fixing as per conservation-based slate re-fixing details as shown elsewhere.

Use section of timber substrate to match existing.

Use lead code 8 for new valley gutter.

Lead sheets should be fixed at the top end only (to allow for expansion and contraction), using copper nails in a staggered pattern.

**Repairs to the timber substrate if required**

The timber substrate will require replacement to the extent of rot damage, assumed to be 2m long. A new underlay of needle-punched, non-woven geotextile felt should be used between the boards and lead to avoid the lead adhering to resins or joints in the timber. Felts containing bitumen should not be used, as heat could make the bitumen stick to the lead sheeting. Building paper suited to plywood should be used.

1. All lead and workmanship to be in accordance with the Lead Sheet Training Academy manual.
2. Sheet underlay: Building paper to BS 1521, Class A1.
3. Timber substrate: 18mm thick marine plywood WPB class 3 CE2 to ISEN 13986 and EN 636-3. Board to be fixed to match existing details of surviving boards.
4. Type of lead: Rolled to BS EN 12588 4.1. Thickness: code 8 thickness 3.55mm
5. Pretreatment: n/a
6. Laying: Over and beyond tilting fillets
7. Lengths: Not more than 2000 mm.
8. Fixing: Welt edges. Nail top edge of each sheet. Dress bottom end neatly over lower valley lead section.
9. In-situ lead-welding is not permitted.

A4. REPAIRS TO CHAPEL PORCH ROOF

To be read in accordance with dwg. PL750-106 / PL750-107

**General**

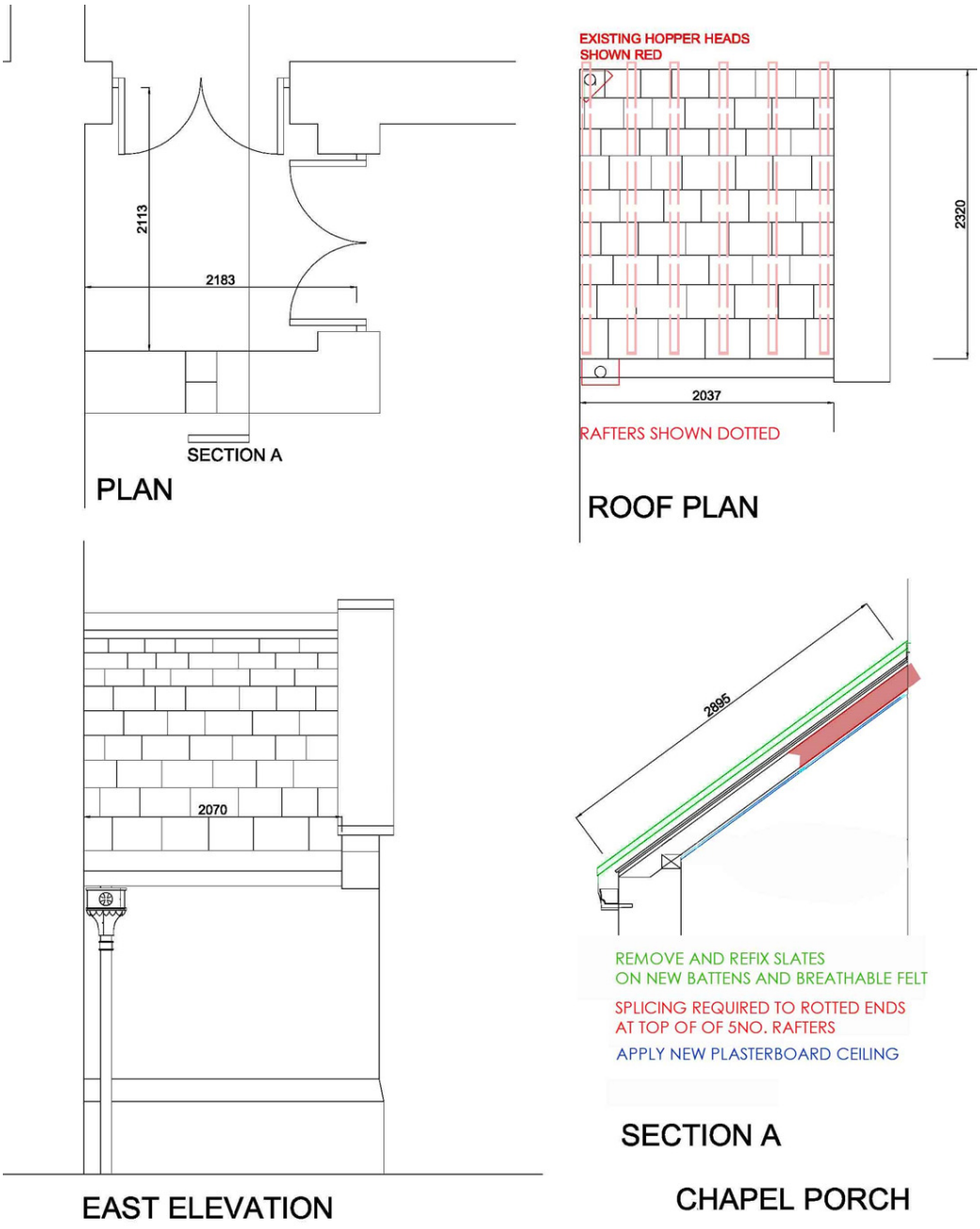
The small roof at the chapel porch has been severely damaged due to water ingress from overflowing gutters and hopper head over. The walls against which the roof connects have been saturated and thus water has ingressed behind the existing flashings and caused wet rot to the timber roof structure, causing collapse of the porch ceiling and some of the floor of the porch and chapel below. The gutter blockage has been removed and it is proposed to remove all slates and battens; repair the roof timbers where required (5no. rafters, at the junction of the convent east wall); fit breathable membrane on the monopitch roof; apply new treated sw battens; re-slate the porch roof; apply plasterboard ceiling to the sloped ceiling below.

Note: Exact and final methodology and extent of works required for the detailing of the re-roofing works cannot be fully ascertained until the roof is opened up during the works. The conservation architect will record the existing details and design the repair works strictly in accordance with conservation principles and in replication of the original and existing fabric and construction details.
The roof works will be carried out by a tradesman experienced in similar conservation roof and slate work, and closely overseen by the conservation architect.
The slates are laid in diminishing sizes towards the top.

*Close-up of damage at Chapel Porch Roof - section of surviving historic gutter also shown*

*Chapel Porch Roof*

*Underside (ceiling) of Chapel Porch Roof – showing rafter ends to be repaired*




**Slate removal**

The porch retains a portion of the only surviving cast iron gutter at the convent (the remaining surviving sections are immediately adjacent on the apse elevation). Remove the gutter, hopper heads and downpipes (above and below) for refurbishment (see below).

It is intended, if possible, to preserve and reuse all slates in the exact same positions. The roof to be photographed prior to commencement of works to allow for correct reinstatement and all slates numbered.

Extreme care therefore must be taken when removing the existing slates.

All slates (approx. 65 no. slates overall) to be reused should be sorted and separated in accordance with their sizes and positions on the roof to be ready for relating, and the separate

batches should be stored vertically on edge and in batches of maximum 20 slates. Store slates on scaffold to avoid double handling.
Conservation architect to inspect all slates once removed. Samples of slate to make up for broken or severely denuded slates to be agreed with the architect before use, and will match existing as close as possible. Slates to be laid to exactly match the original laying pattern using slates of the same shape as the originals. This includes number of courses and their sizing.

**Repairs to roof timbers**
The roof structure is a lean-to format of 120 x 50 softwood pine rafters 400 centres. On initial inspection the roof timbers are partially saturated but do not appear to be completed denuded by wet rot. Some rotting has occurred to the ends of the rafters at their high points, i.e. the junction of the (previously saturated) east elevation wall.
The rotted sections of the rafter ends (5 no.) must be repaired using new timber sections to match original timbers.
Inspect the wall and possible wall plate at the rafter/wall junction. Replace any section of rotted wall plate where required, and to match the existing wall plate.
Remove all original battens. Remove all nails from existing rafters. Fully inspect all roof timbers. Cut away any rotten timber sections. Only clearly rotted or loose timber should be removed to retain as much of the historic timber as possible.
Form spliced joints and insert suitable new rafter ends.
Exact details of splicing to be agreed with conservation architect. Any new timber should match existing material and be free of sapwood so that the physical and structural capabilities of the timber are compatible. New timber shall not be in contact with wet masonry and should be isolated with a damp proof course.
Scarf joints may be used, continuing the rafter on the same plane with sufficient overlap of the old and new sections or a new rafter end may be fixed using a splice or 'sister' section at the side to fix the new and the old. Splices shall normally be a minimum of 750mm long, and fixed with galvanised round head wire nails 6no per spliced rafter. Refit new sections using simple half-lap joints.
Apply appropriate timber insecticide and fungal attack treatment.

**New battens and felt**
Fit new treated sw battens to match existing, on new breathable felt layer, laid strictly in accordance with the manufacturer's recommendations, and to be agreed with the CA.
Battens to match existing in size of battens and positions on rafters. Ringed stainless-steel nails to be used for all new battens.

**Flashings**
Check condition of all existing lead flashings. On inspection the flashings appear to be in good condition, but it may be necessary to replace with minimum code 5 lead flashings to match existing sizes and detailing exactly. Existing leadwork appears to be of good quality with sufficient counter flashings and detailing, however some or all leadwork may need repair or replacement following closer inspection. All care must be taken when removing existing flashing to avoid damage to stonework, especially in previously saturated areas.
Counter flashing shall be 125mm girth with one fold and fixed in location using lead wedges at 300mm centres. Fill joints if required with lime mortar mix 1:3 NHL 3.5 and clean sharp sand or to match existing mortar make-up (note that the convent has been fully repointed with cement-based mortar, so any new mortar, for flashing areas that have been cemented, will

require further study into the original mortars used, some evidence of which may survive elsewhere).

**Breathable felt underlay**
Vapour permeable underlay, Manufacturer: *Proclima: Dasatop* (or similar approved)
Standard: BS EN 13859-1.
Reaction to fire: Tested in accordance with BS EN 13501-1 2.2.
Water vapour transmission (minimum):
Resistance to water penetration: Manufacturer's standard.
Tensile strength (minimum): Manufacturer's standard.
Tear resistance (minimum): Manufacturer's standard.
Resistance to wind uplift: Manufacturer's standard.
Handling: Do not tear or puncture.
Laying: Maintain consistent tautness.
Vertical laps (minimum): 100 mm wide, coinciding with supports and securely fixed. Head lap: 150mm 5. Fixing: Galvanized steel, copper or aluminium 20 x 3 mm extra-large clout head nails.
Eaves: Where exposed, use an external grade (UV resistant) underlay or a proprietary eaves support product. Dress underlay to timber tilting fillet.
Penetrations: Use proprietary underlay seals or cut underlay to give a watertight fit around pipes and components.
Ventilation paths: Do not obstruct.

**Battens**
Timber: 47x36mm Sawn treated softwood.
Species: In accordance with BS 5534, clause 4.11.1.
Permissible characteristics and defects: Not to exceed limits in BS 5534, Annex D. Grading: Fully factory pre-graded in accordance with BS 5534 1.4. Moisture content at time of fixing and covering (maximum): 22%.
Preservative treatment: To be agreed with CA.
Setting out: Align parallel to ridge in straight horizontal lines to gauge of slates. Align on adjacent areas.
Batten gauge: 150mm for 100mm slate head lap.
Batten length (minimum): Sufficient to span over three supports.
Joints in length: Square cut. Butt centrally on supports. Joints must not occur more than once in any group of four battens on one support.
Additional battens: Provide where unsupported laps in underlay occur between battens.

**Slate refixing**
Any debris at underside of slates to be re-used must be removed with stiff wire brush and hosed so the slate can sit properly when re-used.
Refix all slates as per original layout, with each slate numbered and replace in the original position, using copper slate nails with large heads in newly formed holes if required, using the appropriate slating hammer.
Inspect existing ventilation available at eaves and ensure continuing ventilation on future. A proprietary hidden eaves vent may be appropriate if sufficient air flow is not evident on the existing construction.
Slates (where salvaged): Thickness and sizes to match existing slates at each course to be replaced but min. thickness for pricing: 6-8mm;

General: Fix slating and accessories to make the whole sound and weathertight at earliest opportunity.
General: Carefully remove slates, battens, with minimum disturbance to roof timber structure. Head-nail short course to maintain gauge.
Fixing: Two flat head copper nails each slate. Copper clout to BS 1202-2. Centre nail each slate twice through countersunk holes 20-25 mm from side edges. Nails to penetrate batten not less than 15mm. If holed on site, slates to be holed from underside and from tail.

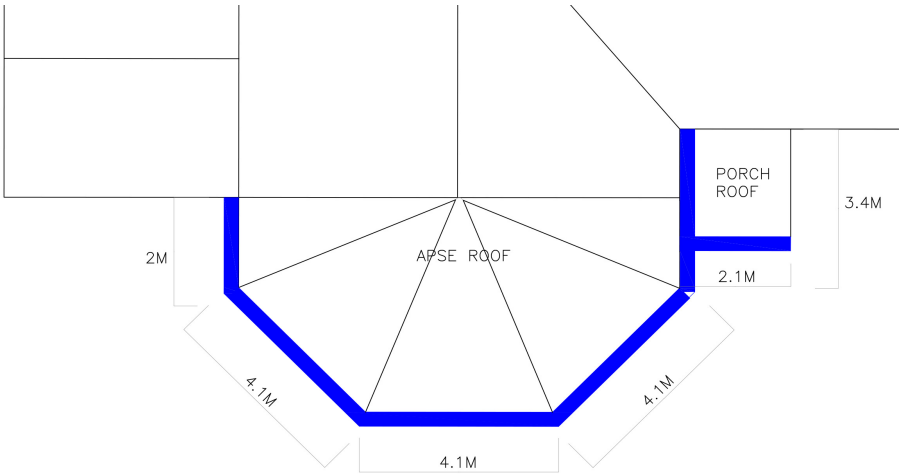
B. WORKS TO RAINWATER GEAR
To be read in accordance with dwg. PL750-106 / PL750-107

**General**

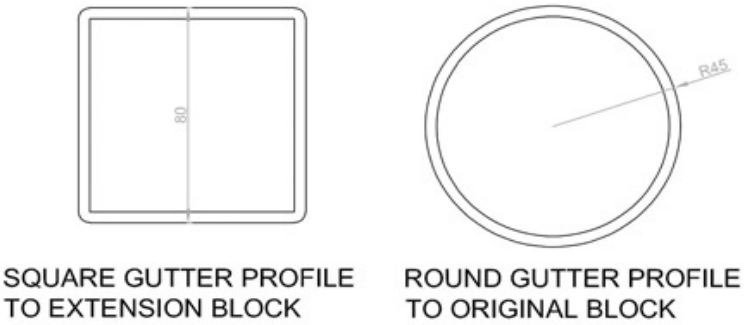
The historical part of the convent was constructed in two phases (a third phase of modern construction was carried out in the 1970s at the northwest corner and works to this part is not included in the funding application).
The first phase in 1867 was extended on the 1880s strictly on accordance with the original detailing throughout except for slight differences, including the use of square cast iron rainwater pipes with associated brackets, in lieu of the original round pipes.
The cast iron gutters were almost completely replaced with aluminium seamless gutters in the 1980s. PVC downpipes also replaced the cast iron downpipes in the courtyard. Much of the recent water ingress was due to overgrowth and cleaning and maintenance will arrest the problem. The seamless gutters and the PVC downpipes will be cleaned fully and flushed out, (separate to, and not included in these proposed works) in order that there is no water ingress occurring from the seamless gutters and PVC downpipes.
A small section of the original cast iron gutters survives at the chapel porch and the chapel apse. These small sections, total 20m run in 6 no. segments (see drawings). The gutters are a simple ogee shape with a flat cast iron bracket cantilevered from the wall. Approximately 50% of the original brackets have survived.
The proposals however include for replacement of the seamless gutters with new cast iron gutters at the south and east elevations where the aluminium has severely denuded and most of the water ingress has occurred.
The cast iron gutters, hopper heads and rain water pipes at the external (non-courtyard) elevations will be refurbished with part new cast iron rainwater pipe additions at four downpipe locations where parts of the downpipes have broken or denuded to the extent that the parts must be replaced.

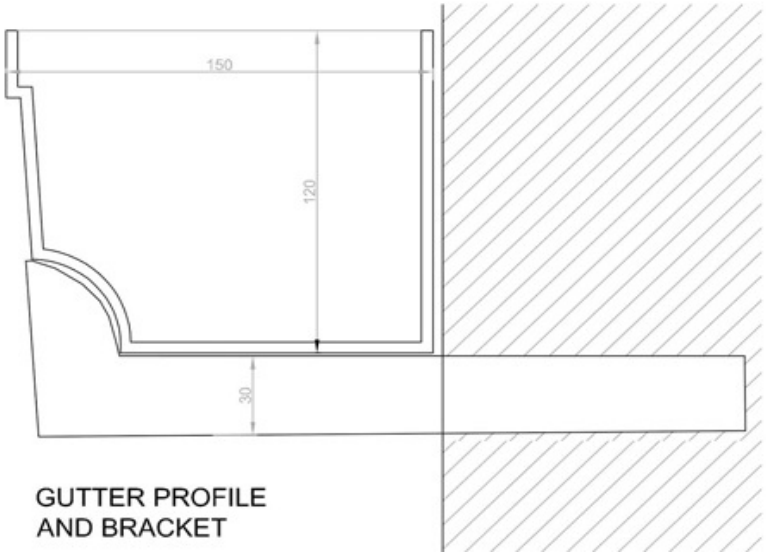
B1. REPAIRS AND REFURBISHMENT OF SURVIVING HISTORICAL GUTTERS, CAST IRON HOPPER HEADS AND DOWNPIPES

*Surviving section of historical gutter at chapel apse*

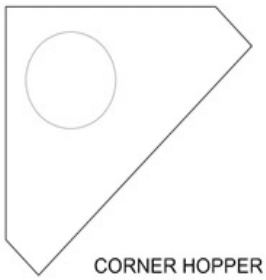



*Surviving historical gutters at chapel apse and chapel porch*

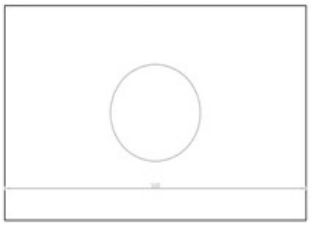


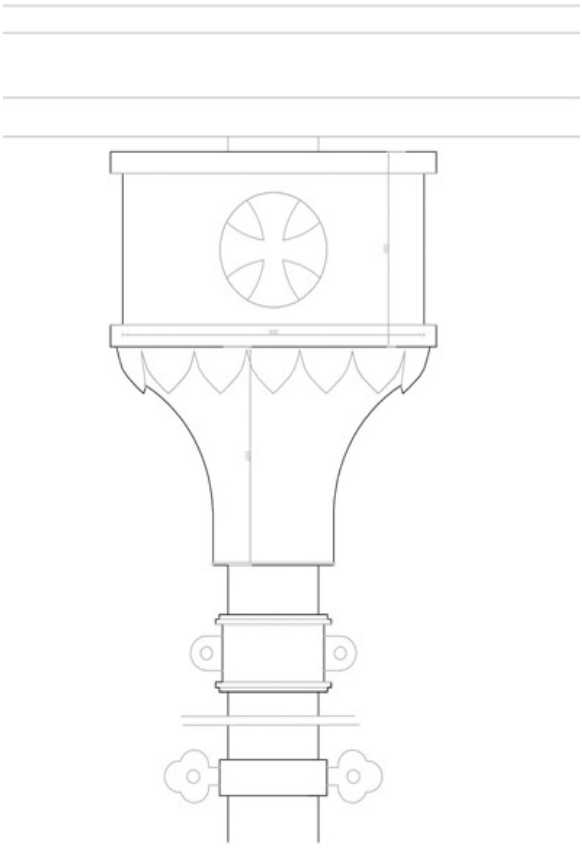

*Details of surviving historical gutters at chapel apse and chapel porch*



CORNER HOPPER HEAD PLAN
(1No. AT CHAPEL PORCH)



TYPICAL HOPPER HEAD PLAN



TYPICAL HOPPER HEAD ELEVATION
SHOWING VARIANT IN BRACKETS
(TOP: CIRCULAR SECTION / LOWER: SQUARE SECTION)

*Details of surviving historical hopper heads*

**Surviving historical gutters refurbishment**
6no. gutter sections survive at east elevation of chapel apse and chapel porch:
- 3no. sections: 4.1m long each
- 1no. section: 2.1m long
- 1no. section: 2m long
- 1no. section: 3.4m long
Total gutter lengths to be refurbished: 19.8m length

**Surviving historical hopper head refurbishment**
- 8no. cast iron hopper heads

**Surviving historical Downpipe refurbishment**
10no. downpipes:

South elevation
(Note new downpipe sections required as detailed below for each of the east elevation downpipes): 4no. surviving sections of the downpipes to be refurbished:

- RWP 1: 7m long
- RWP 2: 3.5m long (
- RWP 3: 1.5m long (Sacristy)
- RWP 4: 1.4m long (Sacristy)

East elevation:
- RWP 5: 3.8m long (above porch)
- RWP 6: 2.6m long (at porch)
- RWP 7: 8m long
- RWP 8: 8m long

North elevation:
- RWP 9: 8m long

West elevation:
- RWP 10: 8m long

Total downpipe lengths to be refurbished: 51.8m

**Refurbishment of gutters, downpipes and hopper heads**
Carefully remove and examine the surviving cast iron gutters, hopper heads and downpipes, along with all gutter brackets and downpipe brackets where refurbishment is required. Carefully remove the brackets without damaging the existing walls and examine for potential re-use if possible.
Much of the cast iron gear is in relatively good condition and is not deemed to require shot blasting to clean the surfaces, however this may be required to the more denuded sections of cast iron.
Cast iron may be cleaned on site or in the contractor's workshop. If cleaning takes place on site the cleaning area and conditions to be agreed with the conservation architect prior to the works.

Clean the cast iron by hand using chisel (if required) wire brush and sandpaper to remove all paint and jointing compounds. Great care must be taken to avoid bruising, distorting or scoring the surface of the ironwork. It is essential to clean off all rust and special attention should be made at vulnerable points such as joints, collars and fixing points.
Provide replica cast iron gutter and downpipe brackets/collars if the existing connections are beyond repair (see below).
Remove all gutter bolts, nuts and washers. Apply one coat of bituminous primer and 1 coat of bituminous paint to internal surfaces of gutters prior to re-installation. Re-install with new calked joints and new stainless-steel counter sunk machine screws for connecting the gutters if required.
Downpipes do not require sealants at joints but gutters must be sealed using low modulus silicone sealants. The sealant is spread evenly within the gutter socket before placing the gutter spigot into the socket and bolting them together with stainless steel or zinc-plated screws and washers. The nuts should be lightly tightened onto the washers to avoid damaging the paint. Finally, any excess sealant should be removed.
Any defective gutter joints should be re-sealed with an oil putty to stop leaks. Any small holes should be filled prior to painting to prevent water seeping in and getting trapped. Most of the rainwater goods are suffering from corrosion, but are otherwise sound and should have all their rust removed (by wire brush and sandpaper) prior to being re-painted. Existing sound paint should be roughened with sandpaper to help the fresh coats adhere well. Care should be taken not to damage or score the surface of the ironwork.
Apply two coats of a zinc-based primer, one coat of micaceous iron oxide, followed by two coats of gloss paint. Exact final paint type, colour and methodology to be agreed.
Prior to painting the surfaces should be clean and free from corrosion, dirt and grease.
Paint type, colour and methodology to be agreed with the conservation architect and must be applied strictly in accordance with manufacturer's instructions.

B2. REPLICATION OF HISTORICAL GUTTERS

**General**

Replace aluminium seamless gutters on south and east elevations with new cast iron replica gutters to match historical surviving gutters.
Replace broken lower parts of 4no. rainwater pipes on south elevation with new round RWP sections, brackets bends and shoes as required.

**New gutters**

<u>Gutter at south elevation</u>
Length: 45m
- 2no. end pieces; outflow for 3no. existing downpipes;
- 5no. new cast iron gutter brackets to match existing.

<u>Gutters at east elevation</u>
- 2no. sections @ 11m each; 2no. outflows for existing downpipes.
- 2no sections @ 800mm each incl. 2no. corner pieces; 2no. end pieces.
- 1no. section @ 1.8m incl. 1no. corner piece; 1no. end piece; outflow for existing (corner) downpipe (over porch)
- 1no. section @ 3.8m incl. 1no. corner piece; 1no. end piece.
- 5no. new cast iron gutter brackets to match existing.

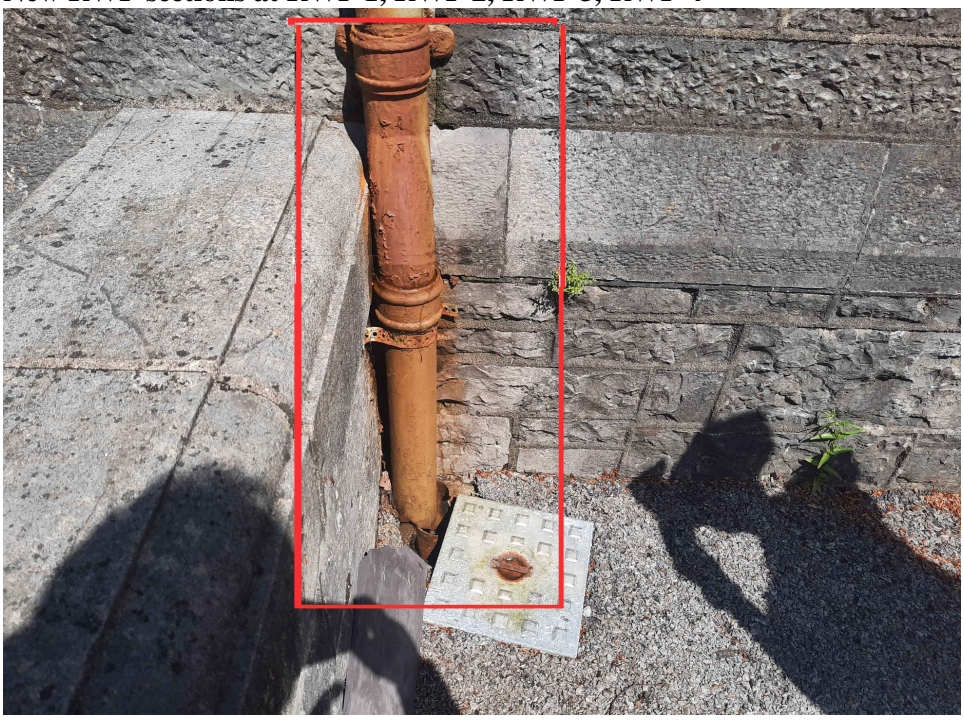
Carefully remove all relevant aluminium seamless gutter sections and ensure that no damage to the historic fabric occurs.

Existing surviving gutters to be measured using a mould system to allow exact replication of the gutters.
New cast-iron gutters to be made with the new end closer pieces, corner pieces, and new brackets as required.
Conservation architect to agree the final gutter and associated end pieces, corner pieces and brackets and all proposed details prior to manufacture.
Painting of all new cast iron (prior to fixing): Apply two coats of a zinc-based primer, one coat of micaceous iron oxide, followed by two coats of gloss paint. Paint type, colour and methodology to be agreed with the conservation architect and must be applied strictly in accordance with manufacturer's instructions.

Install new cast iron gutters at a fall of minimum 1:60.
Supply like-with-like gutter sections with corner pieces and end closers.

Supply the required number of new brackets to match existing. Brackets to be inserted in original positions if possible, using lime mortar in the joints. 10no. new cast iron gutter brackets to match existing required. Existing brackets that are rusted beyond repair must be carefully removed from the walls. Carefully inspect and remove if required, for refurbishment, each surviving cast iron bracket. Agreement on site with conservation architect required for methodology of removal of gutters and brackets. New brackets to be painted as per gutters.

B3. REPLICATION OF HISTORICAL RWP (PARTS)
**New RWP sections at RWP 1, RWP 2, RWP 3, RWP 4**



*Replacement downpipe at RWP 1 - new bend and shoe also required: South elevation*

*Replacement downpipe at RWP 2 - new bend and shoe required - South elevation*

*Replacement downpipe at RWP 3 - Sacristy - South elevation*

*Replacement downpipe at RWP 4 - Sacristy - new shoe also required - South elevation*

Downpipe Section 1:
Lower section of downpipe at south elevation
Length: 1.2m, and including bend, shoe.

Downpipe Section 2:
Lower section of downpipe at south elevation
Length: 4.5m.
Downpipe to be carried down to ground level, have discharge shoe and discharge to functioning stormwater gulley.

Downpipe Section 3:
Upper section of downpipe at south elevation - Sacristy
Length: 1.5m,

Downpipe Section 4:
Lower section of downpipe at south elevation - Sacristy
Length: 1.1m, and including shoe.

Remove denuded sections of the downpipe once dismantled. If possible, retain the intact part of the broken downpipe and cut away and replace the broken section using a new bracket.
Provide replica cast iron downpipe sections with brackets, bends and shoes as required.
Existing surviving downpipes and brackets to be measured for exact replication of the pipes.
Missing cast iron brackets should be replaced with new cast iron replicas.
New brackets should match the originals in design and material. If this is not possible, stainless-steel brackets may be used.

Existing cast iron gear to be examined to ascertain the original paint type and colour. Painting of all new and refurbished cast iron (prior to fixing): Apply two coats of a zinc-based primer, one coat of micaceous iron oxide, followed by two coats of gloss paint. Exact final paint type, colour and methodology to be agreed.

Ensure that the cast iron is absolutely dry before paint is applied, to avoid moisture being trapped beneath the paint layers. Painting in windy conditions should also be avoided as wind-blown dirt and dust may damage fresh coatings of paint.
New cast iron painting: Apply two coats of a zinc-based primer, one coat of micaceous iron oxide, followed by two coats of gloss paint. Exact final paint type, colour and methodology to be agreed.

Once the refurbished and new rainwater gear has been installed the system should be water tested using a hose or watering can to check there are no leaks and that the walls remain dry.

Notes:
1. At RWP 1 an aluminium manhole is immediately adjacent the downpipe shoe to be replaced. Works include alterations as necessary to the manhole to allow the correct placement and re-fixing of the downpipe section).
2. At RWP 3 the new upper section requires connection with the aluminium gutter over. Contractor to allow for such connection. Full restoration of gutter to cast-iron will be carried out subsequently.

C. WORKS TO WINDOWS
To be read in accordance with dwg. PL750-108

**General**

The convent's timber sliding sash windows have been subjected to severe vandalism since closure of the building. The windows and doors were completely covered up with ply sheeting to external faces.

The allowing of light into the building and the possibility of opening the lower sash sections, and maintaining continual ventilation is essential for the building to dry out after the severe water ingress that has occurred due to defective and overflowing rainwater gear. The closing up of the windows has exacerbated the dampness, condensation and mould growth in the building and further damaged the historic fabric.

Approximately 60no. window panes with historic cylinder glass have been broken on the sash windows. It is proposed that any windows with broken glass panes should be fully refurbished including the main timber frames weight mechanisms and ironmongery.

The windows are also affected to varying degrees by ongoing wet rot, denudation of the weight mechanisms and ironmongery. Therefore, the proposals below include conservation-based repairs to the windows, frames, weight mechanisms and ironmongery.

Access to the windows may be via cherry picker type vehicle or standard scaffolding set-up. Contractor to decide on access proposals based on the overall works including roof and rainwater gear access requirements. Access to courtyard is possible using a high reach cherry picker, which may be brought through south elevation double doors and through courtyard double doors.

*Typical sliding sash windows to be refurbished*

**Works on site: Removal of the Sashes**

General

The following works to windows on site should be carried out to approximately six windows at one time, totalling twelve sashes.

- A cherry picker (MEWP) may be used throughout the site, including for access to windows in the courtyard, to facilitate fixing a safe barrier to each window. Alternatively, a scaffolding system may also be used if the cherry picker cannot provide sufficient access. Note: When working on the inside courtyard, cherry picker (MEWP) can be transported through the side entrance doors and through the inside hallway and onto the solid ground.

- Plywood sheeting of appropriate sizes to be placed on the outside lip of the cill and fixed to the building without damage to the fabric around the windows, including the cills, to create a safe working environment for those working on the inside and weatherproofing to the external. Methodology of fixing to be agreed with conservation architect.

- Sashes to be removed with great care to avoid further damage to the fabric. From the interior, four staff beads, two horizontal and two verticals to be carefully removed intact and set aside, bundled and labelled to be re-fixed at a later stage.
The beads to be stripped of paint in the contractor's workshop.

- The bottom sash cords should be held by a clasp or flat head screws, these are removed releasing the sash which is to be left aside and labelled to go to contractor's workshop.

- Place sash cords in knot and leave to one side.

- Remove the parting beads, one horizontal and one vertical, set aside and label.

- Top sash to be released by the same method as the bottom, labelled and set aside.

- Once all materials are set aside, the plywood sheets are sitting on the cills with 2 x 2 battens already screwed onto the inside face. These are used to the secure the plywood with further 2x2 battens to the sash frame by means of 80mm screws to the parting bead channel, meaning no screw holes will damage the frame.

- Repeat the above for all remaining windows, and remove all sashes to the contractor's workshop for repairs.

**Works on site: Treatment of the Frames**

General

- Approved hot air gun, mechanical or chemical treatment and special paint scrapers are used to strip each window frame of its paint to reveal extent of rot and the essential repairs required.

- Each frame to be spliced to cut out any rot and identical matching species timber profile to be neatly spliced back in using traditional scarf jointing methods. It is essential that only the minimum timber fabric is removed where rot has occurred, in order that the maximum amount of sound timber fabric is retained. New ends at the base of the window frames can be scarfed on to the outer lining and/or stile, taking care to make a tight joint, and angled to discourage moisture creeping inwards. Make the cut at least 150mm above the stone sill.

- Note signs of wet rot and dry rot. Some wet timbers are not infected by wet rot and are sound when dry. Such timbers should be retained and treated with linseed oil. All timbers should be air dried before treatments.

- Pinned or stainless screws with polyurethane glue to be used to fix the new spliced sections. The frame splices are always formed diagonally to the frame as so not to hold rainwater, the diagonal splice is cut in a way so to throw water away from the splice to the exterior, the polyurethane glue is also used as an end grain sealer.

- When all necessary splicing is finished, the frame to be sealed twice using a breathable semi water based/polyurethane two pack primer. Any exterior patching is done once primer has cured using a concrete mix. The frames are then painted with two coats using a breathable acrylic paint.

**Joinery Repairs in Contractor's Workshop**

General

- Note signs of wet rot and dry rot. Some wet timbers are not infected by wet rot and are sound when dry. Such timbers should be retained and treated with linseed oil. All timbers should be air dried before treatments.

- Where decayed timber is to be removed to form a splice repair, the minimum amount of existing timber is to be removed to allow an effective repair to be formed. New material to be worked exactly to the line of the existing.

- Where joinery items are to be dismantled for repair, mark and record the parts before dismantling.

- New timber sections to be from a timber compatible to the host timber. Ensure that timber is well-seasoned and matches species, grain, and grain direction for all new work.

- Ensure moisture content of new timber is equal or below that of the host timber.

- New timber to match the line and density of existing grain as closely as possible.

- Splice repairs to be designed so that moisture is directed towards the outer face of the timber.

- Splice repairs to be formed to include a mechanical fixing (timber dowels or nonferrous screws/ pins) as well as compatible glue. An effective bond between new and old to be achieved. Screw or pin fixings to be made from the inner face of the window.

- All joints to be made directly over supports and these shall be scarfed or spiked where required.

- The backs of frames or elements to be fixed to walls or bedding surfaces are to be painted with two coats of approved preservative before priming.

- All joinery to be finished with a clear wrought face prepared for painting.

- All work to be painted is to be treated with knotting as necessary and given one brush coat of priming to all faces.

- All detail profiles shall match the existing. Templates to be taken where necessary.

- Cutting profile tool to be as required to achieve exact profiles.

**Replacement of broken (clear) glass panes at various historic sash windows with salvaged historic glass sections to match existing:**

A conservation glazing expert must be employed to carry out the repairs to the windows.
Conservation architect to inspect quality of replacement glass prior to the works to ensure suitability or to specify alternative glass.
On inspection, no sashes are painted shut meaning no ladders or access machinery will be needed to carry out works.
Carefully remove all lower sashes from frames and remove to the workshop.

On consultation with the conservation architect to agree the best repair strategy.
Extreme care to be taken to avoid any further loss when removing, i.e., if the adjacent pane in the two-pane sash has survived.
The four staff beads, two horizontal and two verticals, are to be carefully removed intact, set aside, bundled and labelled to go back at a later stage. The bottom sash cords are usually held by a clasp or flat head screws, these are removed releasing the sash. This is left aside and labelled. Cords are put in knot and left to one side. The parting bead is removed, one horizontal and one vertical, set aside and labelled. Top sash is released by the same method as the bottom, labelled and set aside.
This process to be carried out the same way for all remaining windows, only remove the number of windows that can be finished in a day so as to not leave any window open for the night.
Place each sash flat on a bench, putty to be removed using hammer and chisel with care as to not damage the stiles. Reclaimed cylinder glass is cut and installed under bed of putty. Apply putty to the perimeter and shaved off using a putty knife leaving a tidy bevelled edge. All waste putty is trimmed and sash is left aside. This process is repeated for the remaining sashes.
The replacement glass, whether cutting down exiting glass to smaller sizes (it is unlikely that his opportunity will occur) or cutting reclaimed glass to suit new pane sizes, will require cutting to shape of the existing opes sizes as required. Cutting of old glass requires a sharp glass cutter ideally with oil reservoir. The glass should be clean of grease and dust and laid on clean soft surface. Avoid cutting too tight to the frame sizes as the frames may be slightly off square, so each pane size should be closely measured before cutting. Any 'belly' in the glass should face outwards.
The sashes to be loaded and brought back to the convent the very same day, the process of the taking out the sashes is done in reverse, any cords deemed unsuitable are replaced. In the event that there isn't sufficient time to get that sashes back to the convent, this may the case if some sashes have unforeseen rot etc, the windows will be boarded up with plywood temporarily from the inside until the sash is fit to come back. Any rot will be spliced out and repaired using traditional methods, reclaimed pitch pine will be used to do any additional repairs. All staff beads will be nailed back using 50mm oval nails, punched and nail holes filled.
Minor breaks at corners to be reviewed with the architect and panes to be cut down for reuse in smaller panes where possible, but this is unlikely to be possible in most cases.

**Timber Type**

- Timber for repairs to be sound, well-conditioned and properly seasoned to suit the particular use and free from defects. Timber to comply with BS1186 Part 1 and must be from sustainable and managed plantations. Timber to be slow-grown with ring growth closely spaced.

- Timber generally to BS EN 942.

- Wood species for repair to be a compatible stable timber.

- Moisture content on delivery 12-19%.

- Preservative treatment to be organic solvent type.

- Quality of workmanship to be to BS1186 (1971) Part 2 or equivalent standard.

- Glues shall be synthetic resin adhesives to BS1204 type UBP used in accordance with manufacturers' recommendations. PVA glues will not be acceptable.

- Screws shall comply with BS1210.

- Nails shall comply with BS 1202.

**Window Repairs in Contractor's Workshop**

Bottom Rail Repair

- Remove wedges carefully. Cut slot in sash stile to allow removal of bottom rail tenon from frame. Tap down bottom rail. Cut back deteriorated area of rail. Splice new section with full tenon to existing rail. Glue timbers together. Joint line to be formed on inner side of glazing line. Reform joint of rail and stile, joint to be wedged, glued, and pegged. Reform anti-capillary drips.

Base of Sash Stile

- Cut back decayed outer face of sash stile. Splice joint to direct water from the glazing line. Joint to be formed with undercut to direct moisture towards outer face of sash stile. New timber piece to be glued and screwed with brass screws fixed from the inner face. Reform anti-capillary drips.

Bottom Rail/ Sash Stile

- Where rail and stile joint are decayed, splice new section into bottom rail and form new mortise and tenon joint with new timber sash stile section. Join section to existing stile with splayed splice joint ensuring moisture is directed outwards.

Cills

- Decayed outer section of cill to be cut back to a line formed behind the bottom rail or behind the drip of same. Fix new section to remaining sound section of cill with brass screws fixed from the inner face.

Loose Joint

- Where joints of sashes are loose and minor decay is evident, non-ferrous brackets screw fixed and recessed into the frame can be used to strengthen the joint.

Mouldings

- A small section of the original moulding to be carefully stripped of paint to reveal crisp, clean edges to allow accurate mould to be taken. Generally new moulded sections to be slightly oversized to allow for working back to the precise line of the existing timber.

Ironmongery & Fittings

- All ironmongery to be retained as far as possible. Broken or damaged hinges, stays or catches, sash fasteners, sash lifts and pull rings, etc to be set aside for inspection, and replaced where repair is not possible. All existing historical ironmongery to be protected during the works. Items to be repaired where possible and cleaned and made ready for re-use. Where ironmongery is denuded beyond repair each case will be inspected and proposals for replacements agreed.

Draught Proofing

- No draught proofing system proposed.

Sashes:

- Sashes to be stripped of all paint using hot air guns and special paint scrapers (see *Repainting* section below). Loose putty is removed, and any broken or defective glass is replaced using respectively salvaged cylinder glass. Restoration putty is applied to hold the glass matching up the old. All necessary splicing and repairs to be carried out using the same principles mentioned above.

Frames:

- Replace sash cords that cannot be reused with traditional woven sash cord, and repair any seized or non-working pulley or replace pulley with matching cast brass pulley where strictly necessary.

**Glazing Repairs in Contractor's Workshop**

General

- A significant amount of historic glass survives (Crown or cylinder glass).

- Extreme care to be taken to avoid any further loss when removing any glass section. Particular care must be used in the removal of putty which should not use a heating method such as hot air gun, due to the risk due to heating, of cracking to the glass. If used the heat should be kept at a low heat of 50-60o Celsius, swept continually over the length of the putty to be removed, can soften it sufficiently without heating the glass to cracking point, allowing the putty to be scooped out and the glass to be removed. Mechanical or chemical means pose less risks to the glass and timber. Exact method of putty removal to be agreed with the conservation architect. The presence of glazing sprigs requires care when removing the putty.

- Minor breaks at corners to be reviewed with the architect and panes to be cut down for reuse in smaller panes where possible.

- Where existing glass cannot be reused, modern cylinder glass or imperfect greenhouse glass to be used. Artificially distressed glass to be avoided.

Putty

- Fresh traditional linseed oil putty, well kneaded and of best quality to be used as BS6262 to the rebate depth sight line or just below to allow for paint finish line on putty. Putty should not be painted for at least seven days.

Glazing Fore Putty

- The minimum fore putty on rebate width should not be less than 6mm. The function of fore putty is to protect the frame by shedding the water from the frame. The back, or bedding, putty should be continuous and the finishing putty should form a clean triangular bead, sealing the glass. Trim the putty so it does not overshoot the edge of the glazing bar.

- All rebates to be clean and clear of minor obstructions and brushed, cleaned and primed. The rebate to be bedded with a non-hardening compound (butyl) to provide a bed between the back rebate and glass of approximately 2mm. The unit to be placed into bedded opening and pressed equally around the perimeter until the 2mm back bed is obtained.

- However, whilst the back bedding to be a non-hardening compound such as butyl commonly used, silicon products should not be used. Final agreement with conservation architect required.

- The unit to be held in position by sprigs, which are thin metal shaped diamonds, which are fixed into the rebate with a sprigging gun. The use of a sprigging gun ensures that the diamond sprig is less than 1mm from glass and prevents any scratches to glass surface. The sprig to be set at 150mm centres or as necessary for small panes.

- It is important that the fore putty be brushed with a fine duster brush to ensure that there is a good seal on the putty against the glass.

Lime mortar repairs between frames and masonry walls

- Natural Hydraulic lime to be used for the mortar mix for bedding, pointing and rendering Specification: 2:5, lime/sand mix. Comply with requirements of BS EN 459-1:2010 Building lime: definitions, specifications and conformity criteria BS 890: 1972 Specification for Building Limes

- Any voids behind the frame to also be packed with a lime mortar (2:5, lime/sand). Key it to receive the mastic and prime with a coat of boiled linseed oil.

- Sand: Comply with requirements of .BS EN 13139:2002 Aggregates for mortar BS 1199 and 1200: 1976(1996) Sands for Mortar for Plain and reinforced Brickwork, Block-walling and Masonry. BS 882:1992 Specification for aggregates from natural sources Shall be clean, coarse, well-graded sharp sand, free from adherent coatings such as clay and well-graded from 8mm particles down to fine sand, to ensure volume of voids as small as possible. Quality, sampling and testing: To BS EN 13139. No sand with clay or silt deposit will be accepted. Sufficient sand for the entire job should be delivered to site in a single delivery to avoid the risk of inconsistency. Do not use more than 15% of very fine particles (150microns). Samples of sand, mortar and of pointing detail to be approved in advance by the conservation architect.

- Storage of lime/sand
Keep different types/ grades in separate stockpiles on covered, hard, clean, free-draining bases in ventilated areas. Keep dry at all times. Store on clean bases or in clean containers that allow free drainage. Prevent drying out or wetting and protect from frost.

- Bagged kibbled quicklime: Store off the ground in dry conditions. Reject all damaged bags. Once bag is open, fold down top and weight it. If unopened shelf time is as per manufacture's recommendations. Materials when stored should be located and used as soon as possible following delivery in chronological order.

- Mixing: Proportion of water to binder to be the least possible required to give mortar of adequate workability. Mortar to be very well mixed, ‘balling’ to be avoided. If using a drum mixer, mix for at least 20 minutes and take particular care to avoid adding too much water. Leave mortar to stand for 20 minutes to allow lime to “fatten up” and improve its workability. Mix again briefly with shovel or mixer immediately before using. Use all hydraulic mortar within 2 hrs of mixing. Do not knock up, re-temper or use mortar that has begun to stiffen.

- Lime and sand mortars not to be applied when ambient air temperature is at or below 5°C and falling or the week weather forecast is below 5°C. If sudden drop in temperature occurs use propane gas heaters.

- Raking out: Do not damage arrises of stone nor disrupt masonry face. Cut sand-cement joints along centre line of horizontal joints using small grinder. Use chisels to break away the sand cement working down from the top of the joint and up from the bottom to avoid damage to stone arises.

- Rake out underlying mortar to square profile to depth equal of joint width. Dry brush to remove all loose particles.

- Dampen all surfaces as well as necessary to equalise suction before pointing. Dry masonry can draw moisture from lime mortar before it has cured and cause it to crumble and fail. Particular attention must be paid to more absorbent areas. Surfaces must be wetted and rewetted as work proceeds.

- Joint detail: Mortar to be finished flush to surface of the stone or slightly recessed where arises are rounded. Finished joint to be beaten with a stiff brush to close shrinkage cracks and expose sand aggregate.

- After care: Setting of lime mortar occurs primarily by carbonation (i.e. contact to CO2 in the air with very gradual release of water). Full carbonation will take several weeks, and it is important that the mortar is protected from rapid drying out. Lime work to be carefully covered at the end of day's work with damp hessian sacking and polythene sheets to ensure that render/plaster/pointing does not dry out before it cures. Extra care to be taken with porous masonry and in warm or windy weather conditions. To ensure adequate setting, work must be protected at all times from frost, rain, sunlight and drying winds for 2 days in summer, and up to 7 days in winter using tarpaulin and straw. Keep finished work damp by spraying intermittently with clean water.

**Paint removal; Treatment of spliced repairs; Filling of holes; Re-painting; Painting new:**

- Paint removal:
  (from frames and dismantled sashes, where required):
  All paint removal processes and paint types to be approved before use.
  If lead paint is present then a process for treatment of the timbers to be agreed.
  Do not remove historical paintwork if it is in good condition, and prepare the existing paint for overpainting if required.
  Flaking or peeling paint does not necessarily mean that the timber is damaged, however it is a sign that paintwork needs to be renewed.

  For paint removal to in-situ frames on site, use chemical or mechanical methods to be approved by conservation architect. Use of a hot-air gun risks cracking historical glass and if approved, must be carried out with extreme care with use of low heat., Where work is done in situ, care must be taken to prevent damage to nearby surfaces.

  For paint removal to sashes with glass attached (contractor’s workshop), This work should be done in a properly fitted out workshop and in compliance with the relevant health and safety requirements.

a hot air gun may be used to remove paint, however, increasing the temperature makes the historic glass vulnerable to cracking. Mechanical or chemical methods may also be used.

Treatment of spliced repairs:
Polyurethane and D4 PVA glues to be used in the spicing process. Type of timber to be used for splicing to be agreed but generally accoya timber or a hard reclaimed pitch pine used. All end grains that face the cill are treated with an end grain sealer such as polyurethane glue. The existing frame to be lightly sanded providing a key for the new paint, and to remove any contaminant that may have built up over time. The timber to be lightly washed with sugar soap with an unbleached lint free cloth to give its final clean, removing all contaminants. The sanding pads are disposed of and new ones are used for each window to help prevent carrying contaminants that may hinder adhesion, e.g. bubbling, peeling

- Filling of holes:
Many of the windows have been damaged by drilled screw holes for connection points for the plywood sheeting used to close up the windows.
All holes to be filled and made good. The holes should ideally be filled with timber plugs to match the existing timber but this may not be appropriate in all cases such as with small holes, whereby an appropriate filler type to be agreed on site, using a two-part epoxy resin, or a putty mixture with white lead paste and sawdust or chalk.

- Painting over existing paint coats:
Wash the painted surface with a non-alkaline soap, mild detergent in water, or sugar soap. Rinse it and run wet sandpaper over it. If existing coats have built up into tracks, sand the paint back to an even finish, checking that the sashes or parting beads are not damaged

- Painting of new (spliced) and repaired timbers:
All exposed timber that is left after all repairs are complete all timbers to be treated with an oil based under coat, left to dry and denibbed leaving a smooth finish, touch up with a second coat of the under coat and then finished with two coats of oil based top coat, to be approved. Paint should be applied in a dry atmosphere. All timber should be sound and the surface clean and dry before applying paint. Putty should be completely covered by paint. For the repaired sashes it is important that the paint on the linseed putty carries up on to the glass sealing the joint between the putty and glass by 2mm to 3mm approximately.
Apply two coats breathable paint with two finishing coats to match historical colours. External windows have white layers of paint while some internal windows are finished with brown paint. Paint types to be agreed with conservation architect.

**Refitting Window Sections on site**
- Sw timbers to be removed on the inside of the plywood sheeting.

- Sashes to be fitted back into the frames in the same way they were taken out, and to be made operational, any alterations are carried out before work continues.

- The plywood sheeting at the external walls to be carefully dismantled, carried down and set aside for re-use.

**Making Good**

It is essential that all works at the sliding sash windows avoids any damage to the existing internal and external fabric around and adjacent to the windows, and any works to the in-situ frames of the sliding sash windows. Any damage to existing fabric must be repaired in accordance with conservation principles. Consultation and agreement with the conservation architect will be required in each case.