



**Mungret Residential Development**  
Conservation Report

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Proposed Development at Dromdarrig, Mungret, Co. Limerick

November 2023

Proposal prepared with



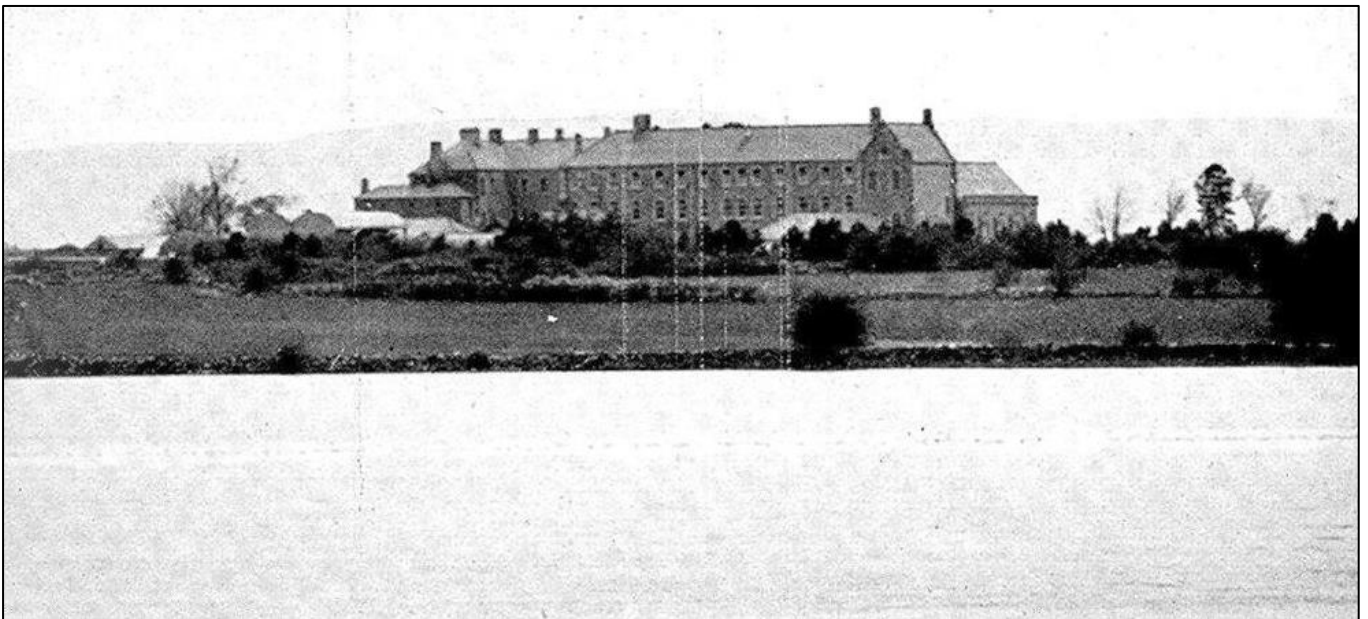
ARUP



## Mungret College



*Overall view of Mungret College. Source Mungret College Prospectus date unknown*



*Photographic View take from the South of Mungret College. Source Mungret Annual 1941*

<b>Contents</b>	<b>Page</b>
<b>1.0 Introduction, Aims of Report</b>	
1.1 Introduction	01
1.2 Aims of Report	02
<b>2.0 Historical Background, Location, Description &amp; Survey of Existing Buildings</b>	
2.1 Site Location	03
2.2 Overall Site Plan of Mungret Residential Development	03
2.3 Plan of existing seismology observatory & context photos	04
2.3.1 Seismology Observatory Plan and elevation.	05
2.4 Plan of existing walls and Proposed Creche & Community Facility	06
2.5 Historical Overview of College	07
2.6 Plan of Agricultural College Complex	09
2.7 Table A, Index to Block Plan	10
2.8 Description & Survey of Existing Walls, (A), (B) & (C).	11
2.9 Description of Mungret Seismological Observatory	12
<b>3.0 Proposed Crèche &amp; Community Facility incorporating existing site wall fabric</b>	
3.1 Proposed wall strategy. (Walls (A), (B) & (C) )	13
3.2 Proposed Crèche & Community Facility incorporating existing site walls indexed (A), (B) & (C)	13
3.3 Relationship between the Existing College Complex and Proposed Creche & Community Facility	15
<b>4.0 Seismology Observatory</b>	
4.1 Seismology Observatory Method Statement	16
4.2 Relationship between the existing Seismology observatory and the proposed development	17
<b>5.0 Conclusions</b>	18
<b>6.0 Glossary</b>	20
<b>7.0 Acknowledgements</b>	22
<b>8.0 Reference</b>	22
<b>Appendix A NIAH Record</b>	
<b>A1:</b> Mungret College, Dromgarrig, County Limerick. Reg No. 21901312	23
<b>A2:</b> Mungret College, Dromgarrig, County Limerick. Reg No. 21901314 (Seismological observatory)	25
<b>Appendix B Proposal Drawings.</b>	26
<b>Appendix C Photographic Record of Seismic Observatory.</b>	27
<b>Appendix D Photographic Record of Retained Boundary walls.</b>	30

## 1.0 Introduction, Aims of Report

### 1.1 Introduction

The aim of this conservation report is to survey the Seismology Observatory located to the east of the site, and three existing stone walls at Mungret College Complex, Limerick. Followed by putting forward proposals, interventions, and to assess the impact of the proposed development on these protected structures.

#### **Walls:**

The three walls are located at the southwest boundary. The intention is to put forward a strategy for conserving and restoring the walls. Allowing their fabric to be included in the design of a proposed new crèche and community facility building (fig.03).

By undertaking a strategy of conservation and restoration. The heritage of these walls will be given a new lease of life and function. The outer wall (A) fig.03 that forms the southern boundary, will be incorporated into the plan of the proposed creche and community facility. This will include a section of wall forming an internal part of the building's fabric. There will be limited interventions and modifications to this wall during construction.

Located opposite the creche entrance. The outer wall (B)fig.03 will form the western boundary. This wall will be retained as originally built and form part of a new pedestrian & cycle path enclosure. It will also form a north south axis. The inner enclosure wall (C) fig.03 will form part of the proposed creche western elevation. It will enclose the new pedestrian & cycle path to the creche fig.03. Thereby creating a true connection between the historical and modern.

All these walls are constructed from random rubble stone built to courses with mortar joints. The outer walls (A) and (B) fig.03 currently form the south and west boundary of the college complex. The existing internal wall (C) aligns on a parallel axis to the outer western wall (B) and currently engages the south elevation of building K fig.03.

There has been a considered design approach taken at the southern area of the site. It is at this point that a connection and a relationship is to be formed between the architecture of the past and the present. The surrounding context of the neighbourhood, the sites heritage have all informed the design process of the creche and community facility building. This new building has drawn from the existing palette of colour, tone, texture, and materials of the existing college. Therefore, creating a building that is aware of its wider architectural and cultural context. The inclusion of the walls (A), (B) and (C) (fig.03) as part of the overall design strategy, have allowed this part of the colleges heritage to be afforded a new lease of life and function. Importantly, they have been brought into the public realm. Forming an integral part of the overall development and a connection to the existing college, built in the middle of the 19<sup>th</sup> century.

#### **Seismology Observatory:**

Located to the east of the college complex (fig.02a), is a single storey observatory building(fig.02d) constructed in the early part of the 20<sup>th</sup> century. Its purpose was the study of seismology by the Jesuit order, who had an interest in seismological events. The Jesuits established several stations around the world. Two were built in Ireland. The first at Mungret (1907) and a second in Rathfarnham, Dublin (1916). The Jesuits also operated a Meteorological station within this building. At that time, this was the most westerly station in Europe. Fr. William J. O'Leary, (1869–1939), Jesuit priest and scientist was the director of the Mungret facility. In 1915 he moved to the Jesuit order community at Rathfarnham Castle, Dublin. There he established a seismological observatory. It is unclear when Mungret observatory ceased to be used. Currently the building is in a state of ruin and overgrown with

vegetation. The four outer walls remain intact. There is no roof evident. There is a single door (west elevation) and window ope (south elevation). All that remains of the window is a timber frame and iron bars set in the reveals. The floor is overgrown with vegetation.

It is proposed to undertake a strategy to conserve and clean the building. This will include minor interventions where appropriate. Followed by securing the building from external access, thus preserving the interior. It is a building of historical significance and an important part of the local heritage and therefore, will remain a focal point within the proposed development.

## 1.2 Aims of Report.

The Primary aim of this conservation report is as follows.

- To assess the current condition of both walls (A), (B) and (C) as found on site.
- To identify the condition of the existing fabric, and put forward solutions with regards to interventions, restoring, cleaning and when needed new elements of fabric and reuse.
- To explain the influence and use of said walls and how they are to be incorporated into the fabric of the proposed creche and community facility.
- To assess the current condition of the seismological observatory building as found on site.
- To identify the condition of the existing fabric, and put forward solutions with regards to interventions, for cleaning and maintaining the seismology observatory building.

The following information will be used in the preparation of this report:

- Local Historical records,
- Mungret Annuals,
- Jesuit online archive,
- Jesuit Online Library,
- Royal Meteorological Society,
- Incorporated Association for the Advancement of Science,
- Irish Archive Recourse,
- NIAH records,
- A visual survey of the seismology observatory. Note (Once work begins a more accurate detail survey will be carried out.)
- Michael Pledge ,Thompson Architects- Mungret Observatory Building Repairs – Site Inspection Report/Method Statement for Building Repairs and drawings -Date 04.05.2010 planning Reference 09/767

## 2.0 Location, Historical Overview

### 2.1 Site Location

The former Mungret College is located in the Townland of Dromdarrig near the village of Mungret to the western suburbs of Limerick City

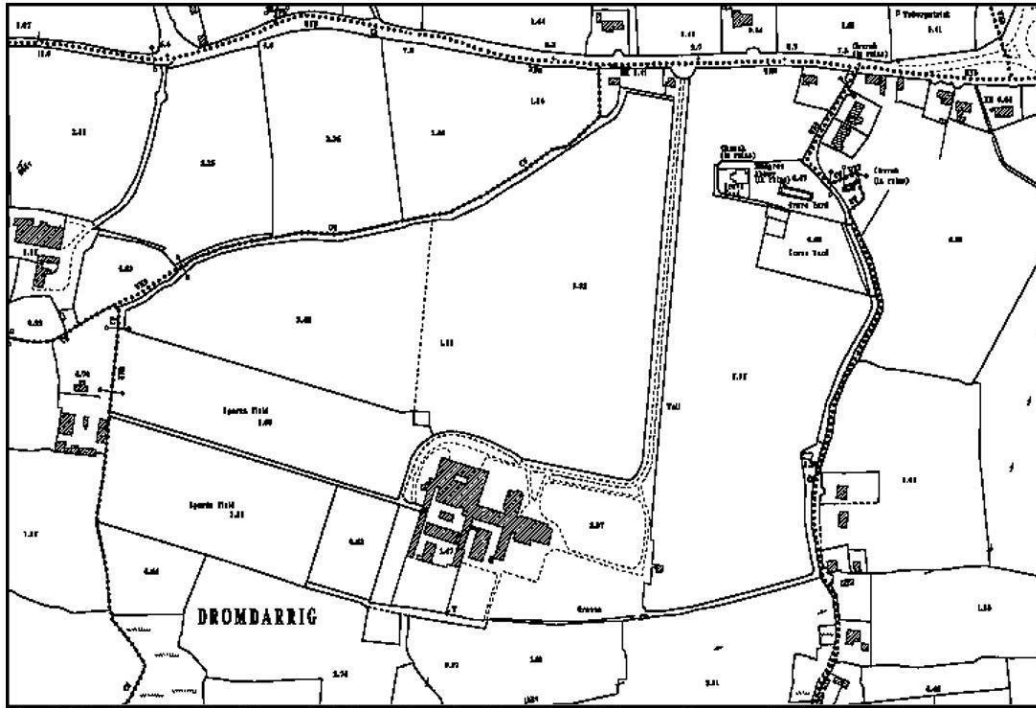


fig:-01 Map of Mungret College, Source Limerick City & County Council

### 2.2 Overall Site plan

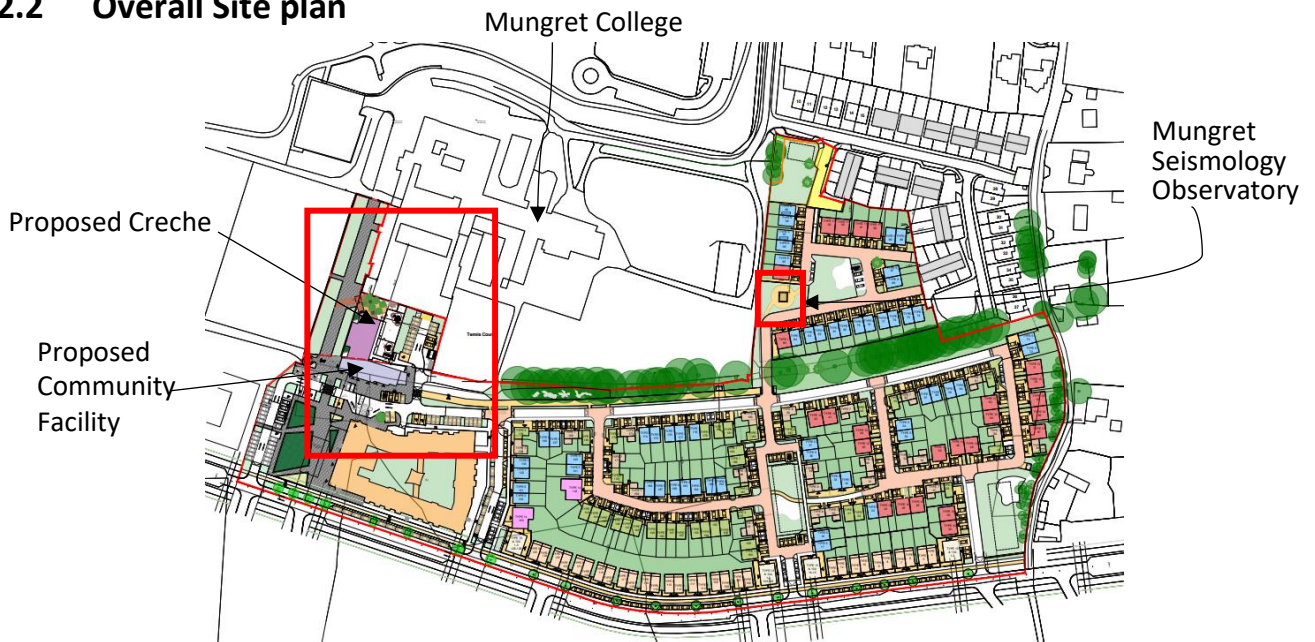



Fig.02 Overall site plan of Mungret Residential Development, Mungret, Co. Limerick Proposed Community Facility & Creche and Seismology Observatory outlined in Red.

### 2.3 Plans of Existing Seismology Observatory

Denote = Vistas 

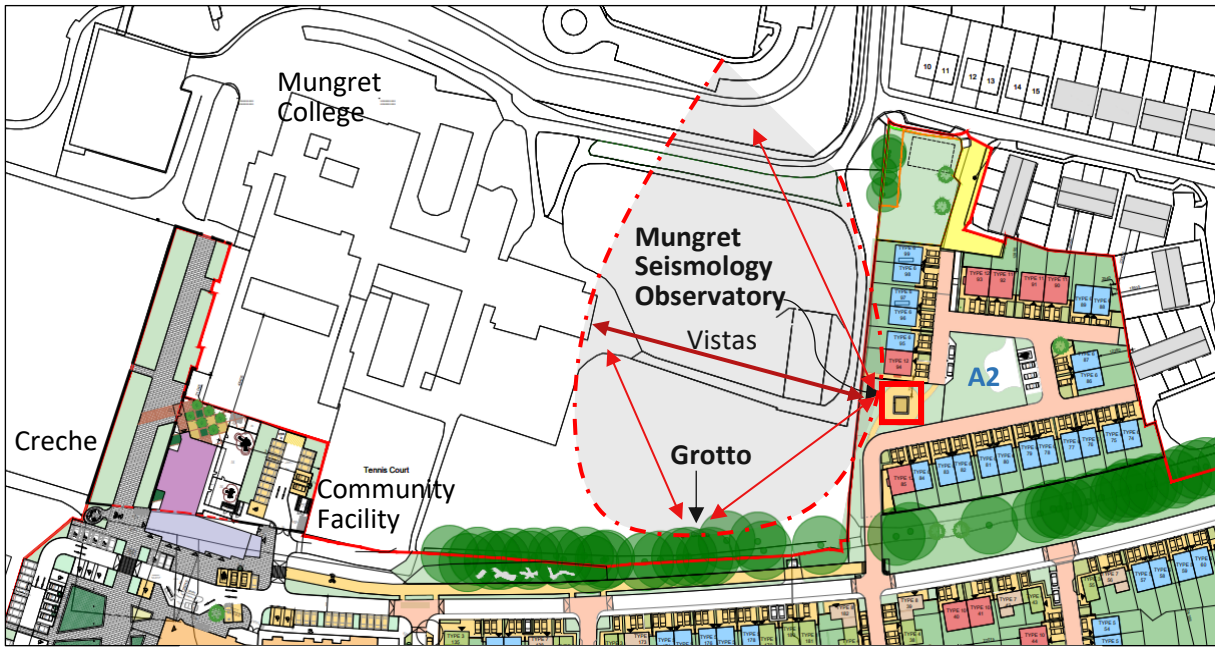


Fig.02a Mungret Observatory location Plan, Mungret, Co. Limerick

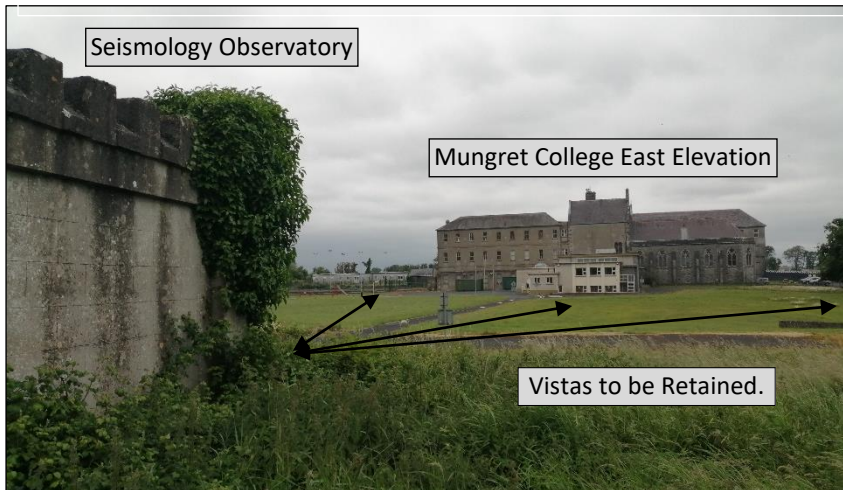


Fig.02b Context Photo. The Seismology Observatory lies to the East of the College Complex. The visual connection is to be retained & maintained free of any development between both buildings. These are significant historical vistas.

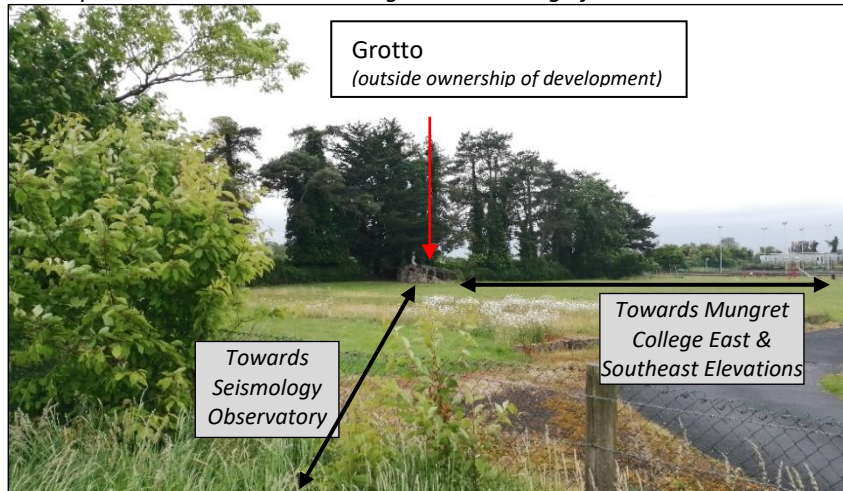
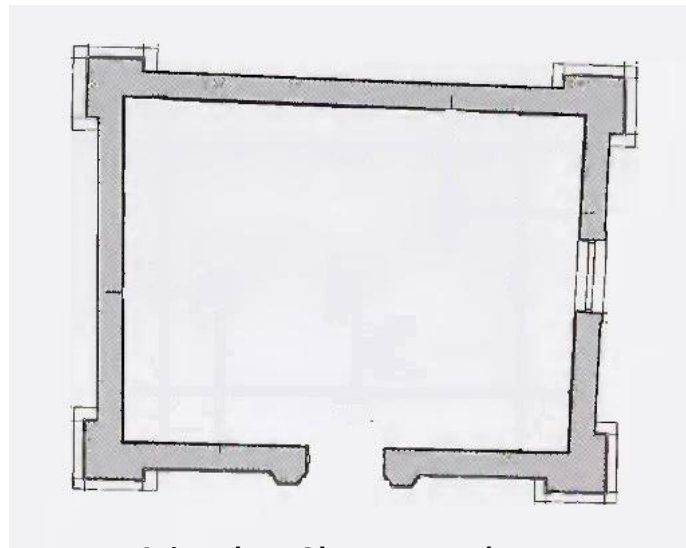
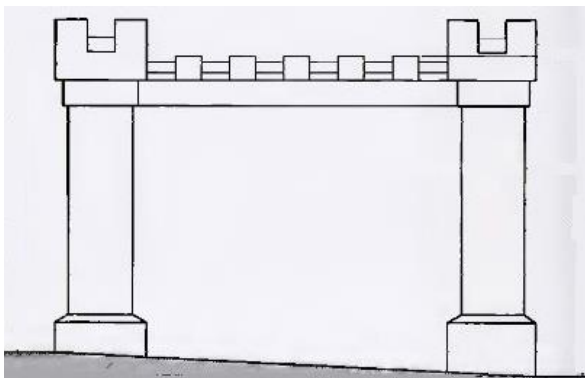


Fig.02c Context Photo of Grotto's relationship to Mungret College and the Seismology Observatory. The Grotto is a significant focal point & part of the Colleges history and heritage. These clear Vistas are to be retained and maintained free of any development.

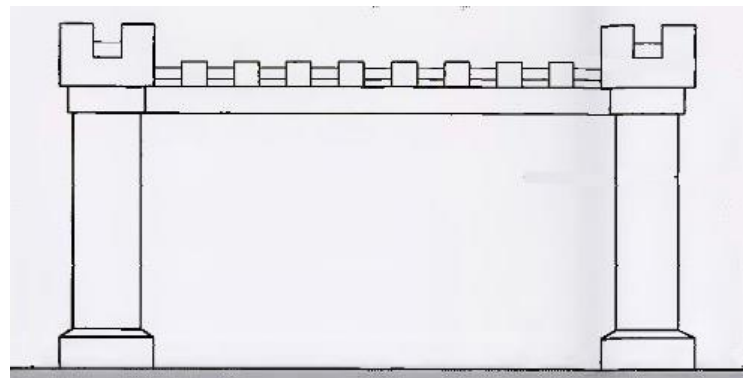
### 2.3.1 Seismology Observatory Plan and elevations



**Seismology Observatory Plan**



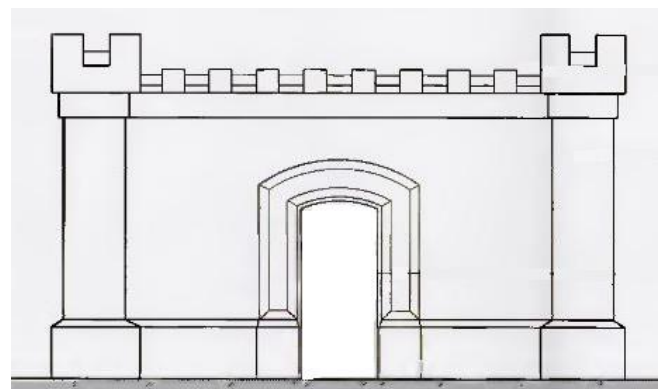
**North Elevation**



**East Elevation**



**South Elevation**



**West Elevation** (this elevation faces the east elevation of the main college.)

*Fig.02d : Mungret Seismology Observatory. Plan ad Elevations*



## 2.4 Plan of Existing Walls and Proposed Creche & Community Facility

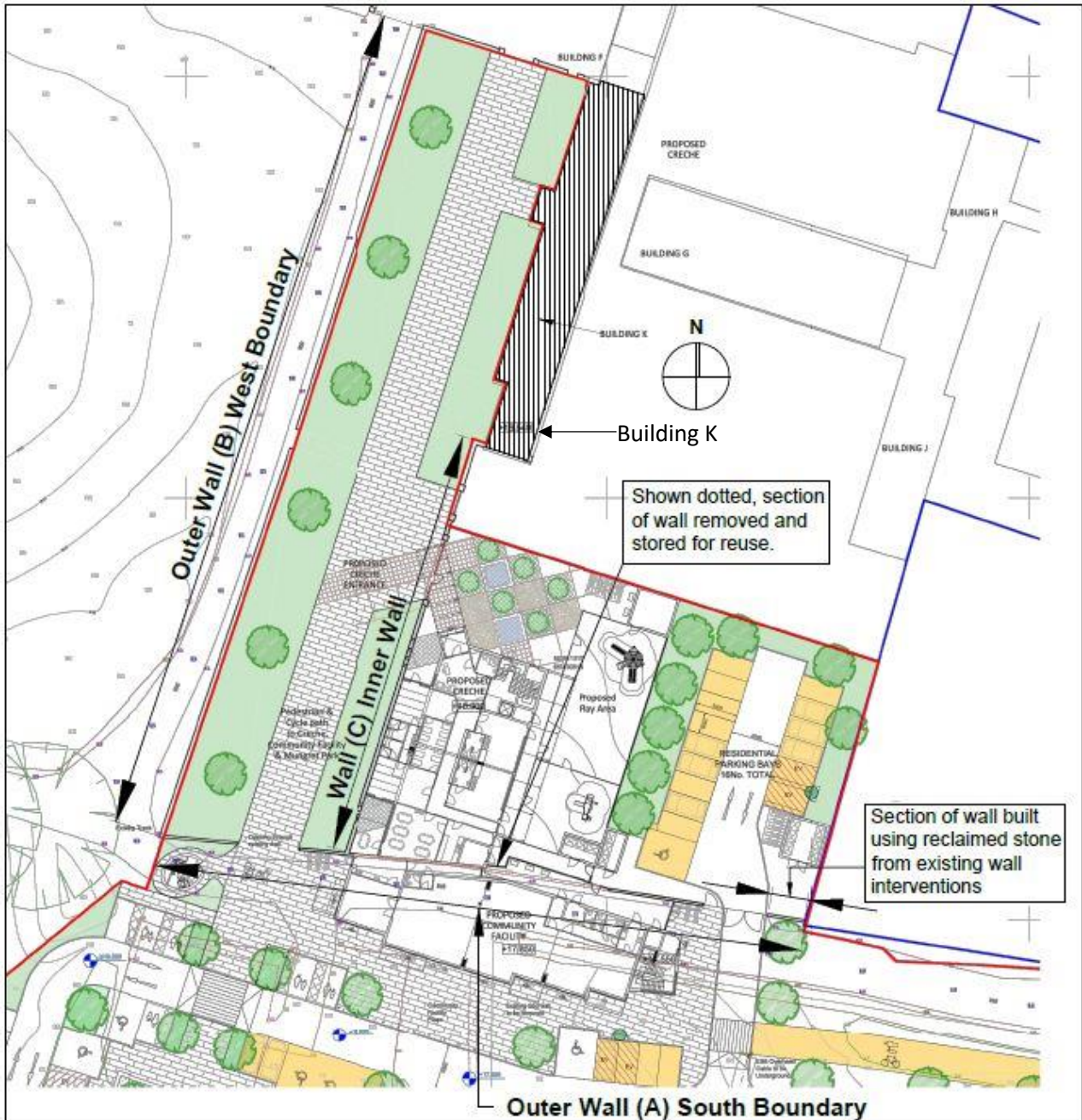


fig:-03 Plan of Existing Walls and Proposed Creche & Community Facility

## 2.5 Historical Background of College and Seismology Observatory.

Mungret College started life as an Agricultural College in the late 1850's, one of many constructed across Ireland in the wake of The Famine to provide training in modern farm practices and to encourage diversification in crops and animal husbandry. It was unusual in that it was constructed as a boarding school.

Unfortunately, this venture was not a success and within a decade the doors had closed. Thereafter, it came into the hands of the Roman Catholic Bishop of Limerick who housed the Diocesan College there for a short while. This event is marked by the inscription of the date 1880 on the fascia of the console bracket that adorns the main front door.

After the Diocesan College moved into Limerick City the Trustees gave the College into the care and keeping of the Society of Jesus. This Order's arrival in 1880 In the ensuing years the Jesuits extended the school, both horizontally and vertically, to encompass a diverse range of operations ranging from an Apostolic School, through to a University, as well as providing a secondary education facility for boarders.

In 1974 the college was closed in its entirety with the assets disposed of as follows:

- The Gothic Wing, along with a later dormitory block, were sold to The Christian Fellowship Church shortly thereafter.
- The main block and its ancillary buildings, many of which date back to the school's foundation as an Agricultural College, and most of the lands associated with that function, were acquired by the Dinneen family in 1976.
- The gym, grotto area, tennis courts, and some of the lands which contained playing pitches, were acquired by Analog Devices' Sports and Social Club.
- The balance of the lands and the school complex that were once owned by the Dineen's corporate entity were acquired by Limerick City and County Council in 2014. (Limerick City & County Council, P.07)

### Seismology Observatory.

The Seismology Observatory located to the east of the college complex (fig.02a). Is a single storey rectangular plan building constructed in the early part of the 20<sup>th</sup> century (1907). It has a castellated parapet wall with slopping crenels and merlons above an eaves course.

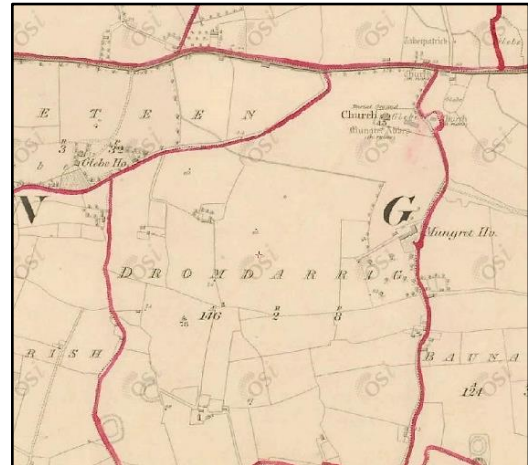


fig:04 The First Edition of the Ordnance Survey showing the site, marked by the red reticule, of the Mungret College Complex (Not to scale).

Source Limerick City & County Council

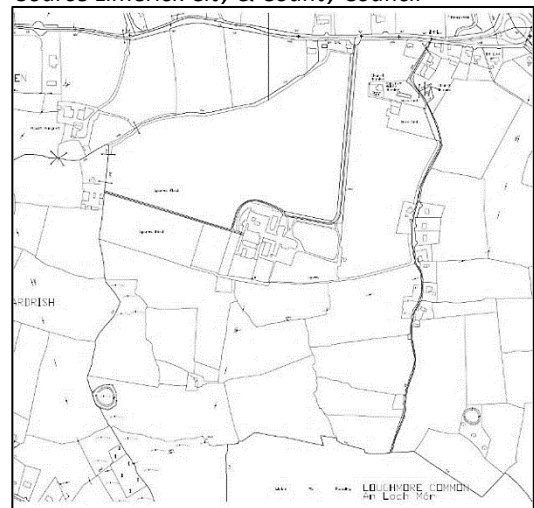


fig:05 Map of Mungret, in the Townland of Dromdarrig. Indicating Mungret Agricultural College. Ordnance Survey of Ireland,

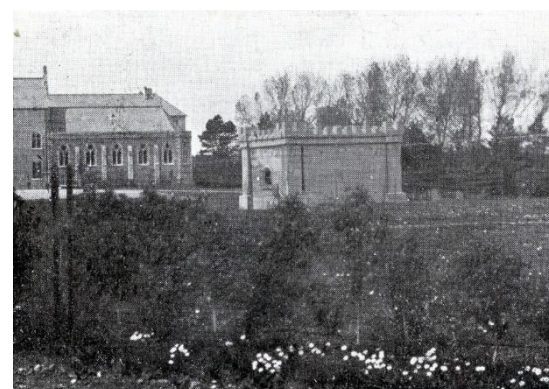


Fig.05a, Mungret Observatory 1909. Reproduction of a Photograph taken by Fr. William O Leary S.J.

There are pilasters with deep raised plinths on the four corners of the building. The building has one window facing south and a single door on the west elevation facing the main college complex to the east. There is a clear uninterrupted visual link connecting both of these building. The design of this building at the time conveyed a sense of grandeur and individuality for the function it fulfilled. It was surrounded clear vistas.

Its purpose was the study of seismology by the Jesuit order who had an interest in seismological events. This began after the Japanese earthquake of 1889 when the modern era of seismology study began. The Jesuits Order established several stations around the world to record such events. They built two in Ireland. One at Mungret (1907) and a second in Rathfarnham, Dublin (1916). Fr. William J. O'Leary, (1869–1939), Jesuit priest and scientist was the director at Mungret.

The Mungret station also operated a Meteorological station. At that time, this was the furthest west of any other station in Europe. He carried out a series of upper air investigations using sounding balloons between 1911 and 14, at the request of a joint committee of the Royal Meteorological Society and the British association. These findings were published by the Societies and attracted immense attention at the society's annual meetings.

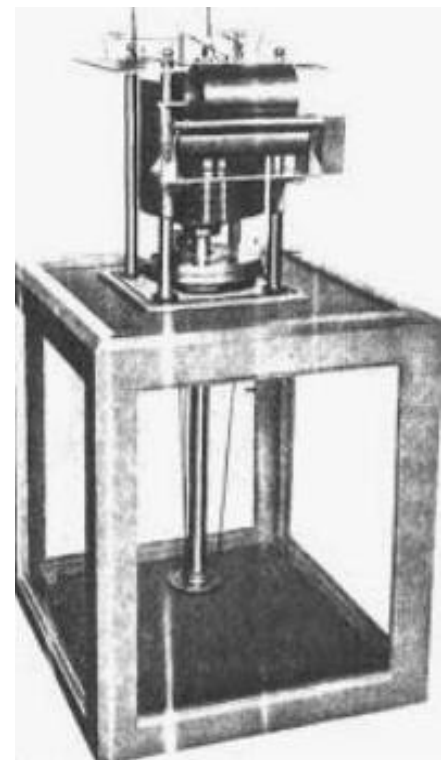
At the Coronation Exhibition in London in 1911 Fr. O'Leary exhibited his own inverted pendulum design, a new seismograph fig.05c that he used in Mungret. One of the main problems in the field of seismology is how to obtain an instrument with a fairly long period and consequent high sensitivity. Fr. O'Leary provided a solution with his two-component seismometer. Some of the leading seismologists of the time such as Professor Milne had high praise for the invention.

In 1915 Fr. O'Leary moved to the Jesuit order community at Rathfarnham Castle, Dublin. There he established a seismological observatory. In 1929 he moved to Australia where he became director of the observatory at Riverview College, New South Wales. (He promoted for example, the more rapid interchange of results between various pacific Stations). He worked and continued his investigations into chronology and Riverview College still has his free pendulum clock. He died 1939 and was buried in Sydney, Australia. The Irish Jesuit Archives in Dublin has a collection of his seismological journals that he kept in Rathfarnham. In 1959 Georgetown University donated its O'Leary free pendulum clock and the collection of letters regarding its construction, to the Smithsonian Institute.

It is unclear when Mungret observatory ceased to be used. Currently the building is in a state of ruin and overgrown with vegetation. In 1979 and 1995 Prof. Thomas Murphy visited the site and found it derelict with no instruments or documents to be found.

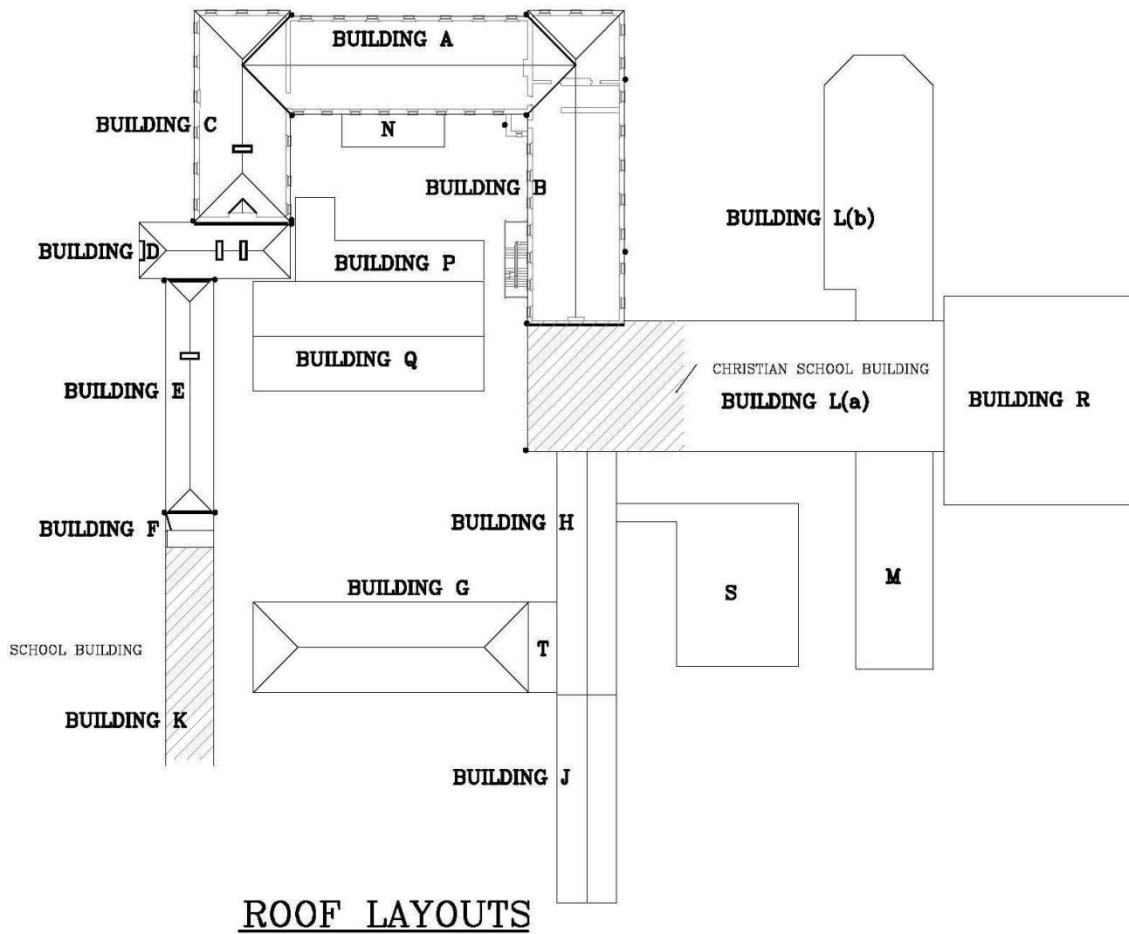


*Fig.05b, Reproduction of a Photograph of the seismographs installed at Mungret Sourced Mungret Observatory building repairs- Site inspection report/method statement for building repairs.04-05-2010*



*Fig.05c, Reproduction of a Photograph of the seismographs installed at Mungret Sourced from Mungret Observatory building repairs- Site inspection report/method statement for building repairs.04-05-2010*

## 2.6 Plan of Mungret Agricultural College Complex



*Fig.06. Layout of the complex of buildings at Mungret College (to be read in conjunction with Table A)*

Present ownership of Buildings:

- Buildings A, B, C, D, E, F, G, H, J, N, P, Q, S, and T are owned by Limerick City and County Council.
- Buildings L(a), L(b), and M are owned by the Christian Fellowship Church.
- Building K is owned by Limerick City and County Council and is currently leased to the Educate Together School.
- Building R is owned by Analog Devices' Sports and Social Club.

**Source:** Limerick City & County Council.

## 2.7 Table A, Index to Block Plan

<b>Table A: Mungret College buildings, index to block plan</b>	
The Highlighted Buildings E,F,G & K are the subject of this report and will be discussed in further detail	
<b>Index no.</b>	<b>Description</b>
<b>Building A</b>	Main Front Block. Originally of two storeys it had an extra storey added in 1907.
<b>Building B</b>	Return to the rear of the main front block, on its eastern side. Originally of two storeys it had an extra storey added in 1907.
<b>Building C</b>	Return to the rear of the main front block, on its western side. Originally of two storeys it had an extra storey added in 1907.
<b>Building D</b>	Return to the rear of Building C which projects west of its line. Originally a two-storey structure it had an extra storey added in 1907.
<b>Building E</b>	Return to the rear of Building D Originally a single storey it had an extra storey added in 1907
<b>Building F</b>	Archway attached to the southern end of Building E This structure gave access to the main courtyard formed by Buildings A – H
<b>Building G</b>	Free-standing single storey structure framing the southern boundary of the main courtyard
<b>Building H</b>	Free-standing two storey structure framing the eastern boundary of the main courtyard, it may have been constructed in two phases
<b>Building K</b>	Range of single storey outbuildings south of the archway identified as Building F
<b>Building L</b>	Gothic wing constructed in 1897 to house the Apostolic School, comprising classrooms, accommodations, and the Boys Chapel (L(b))
<b>Building M</b>	Dormitory Wing running southwards from Gothic wing
<b>Building N</b>	Flat-roofed single storey extension that housed the Boarding School's Headmaster's Office
<b>Building P</b>	Flat roofed corridors and rooms linking Main Block to the 1950's Refectory
<b>Building Q</b>	A-Framed Refectory constructed in the late 1950's
<b>Building R</b>	Flat roofed Gym, two storeys in height, constructed east of the Boys Chapel
<b>Building S</b>	Swimming Pool- the last structure erected by the Jesuits, constructed in the 1960's
<b>Building T</b>	Flat roofed single storey structure erected at a height between the eaves of Building G and linked to Building H
<b>Source:</b> Limerick City & County Council.	

## 2.8 Description & Survey of Existing Walls (A), (B) & (C)

The walls as found on site can be divided into two main elements. The outer boundary walls facing South (A) and West (B) and the inner enclosing wall (C) fig.03

The South(A) and West(B) walls form the south-westerly corner of the site that bounds a lane fig.09. These walls are constructed with random rubble stone, built to courses with mortar joints. The facade and top of wall including the bedding joints have a considerable amount vegetation growth. There is extensive lichen staining on the wall elevations fig.07 & fig.08.

The bedding joints as found are in various stages of deterioration and decay. In sections there is a loss of material.

There is a light render finish on sections of the wall, which have deteriorated. The stone outline can be seen underneath said render.

Both walls have access points. The opes are formed in brick to the south and stone to the west. On the south wall there are changes in height fig.08, possibly indicating previous intervention. This would require further investigation. Also, on the south wall there is evidence of a concrete capping fig.08-fig.09.

The wall (C) fig.03 is located internally and is aligned parallel to the outer western wall. It engages the south elevation of building K fig.11. This wall is constructed with random rubble stone built to courses with mortar joints. There are Two piers finished with a smooth render and stone capping fig.10. There is vegetation growth in parts.



Fig.07 Survey photo of Outer wall (B) West Boundary



Fig.08 Survey photo of Outer wall (A) South Boundary



Fig.09 Survey photo: Junction where the South & West Boundary converge. Walls (A)&(B)

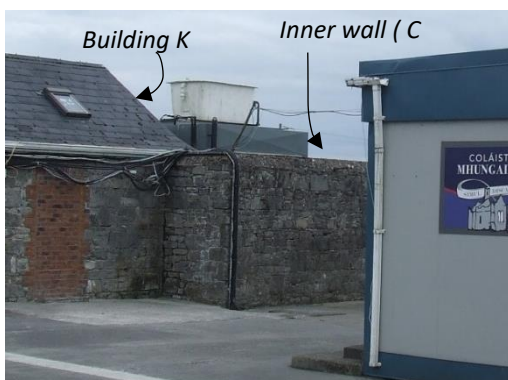


Fig.11 Survey photo : Inner wall ( C ) / South Elevation Building K



Fig.10 Survey photo Wall (C) Piers to be retained

## 2.9 Description of Existing Seismological Observatory

The observatory building is located to the east of the Main Mungret college complex, and is situated within the proposed development (A2) fig.02a.

The building dates to the beginning of the 20<sup>th</sup> century and consists of a single internal space.

As found on site, the walls are constructed from shuttered concrete. There is evidence of formwork on the internal walls, where the plaster has dislodged and exposed the shutter texture. The internal walls have a plaster finish. There is a render finish on the external wall with equal ruled and lined coursing. (suggesting ashlar stone). The four corners of the building have pilasters with rendered deep raised plinths.



Fig.11a Survey photo: Window

There is a castellated parapet to the top of wall with merlons and sloping crenels, above a lower section of eaves course that projects beyond the wall face. There is extensive biological and vegetation growth on all the walls.

The west elevation contains a single door ope. It has a segmental arch with raised architrave and head. The material is possibly concrete with a rendered finish. This can be seen where there is a loss of render at the springing point of the arch (right side facing the door). There is no frame or door leaf remaining.

The south elevation has a single window ope with a timber frame containing vertical iron bars. There is a raised architrave and a segmental arch with a rendered finish. There cill is of rendered concrete.

The North and East elevations contain no opes, except for a single circular drainage ope below the eaves band on the west elevation.

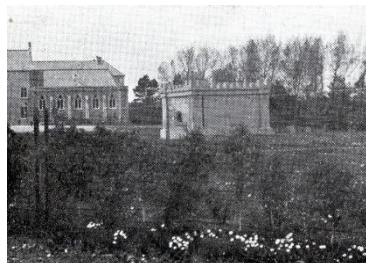


Fig.11b, Mungret Observatory 1909. Reproduction of a Photograph taken by Fr. William O

There is no roof on this building. The type and build-up of roof is unknown but may have been a flat roof to a fall. See fig.11b from 1909, a flat roof may have been contained within the confines of the wall parapet. Holes on the inside face of the external west and east elevation walls may have supported a roofing structure. (this will require further investigation)

Internally the floor is overgrown with vegetation and a layer of hardcore in need of repair.



Fig.11c Survey photo: Observatory North Facing Elevation



Fig.11d Survey photo: Observatory South & East Facing Elevations



Fig.11e Survey photo: Observatory West facing Elevation



Fig.11f Survey photo: Observatory East & North facing Elevations

### 3.0 Proposed Crèche & Community Facility incorporating existing site wall fabric

#### 3.1 Existing Walls Strategy (Walls (A), (B) & (C))

It is proposed to conserve and retain these walls with minor interventions and modifications where necessary. These walls will therefore be incorporated into the new creche and community facility. A strategy involving a comprehensive survey of both outer walls (A) fig.03 and (B) fig.03 and the inner wall (C) fig.03 will be carried out at the outset of the project, to assess the current standing of the wall fabric. This will inform the approach to be taken. Importantly a structural Engineer will need to be engaged to assess the structural stability of the walls, and advise accordingly prior to the works commencing.

A cleaning and conserving strategy will be undertaken by a professional with expertise in this area. All vegetation will be removed, and care taken to the surrounding stone and mortar joints. Where mortar joints have deteriorated and decayed, a process for the repointing will be undertaken with regards to, raking out, washing, brushing, mortar mix and curing. The joints will be cleaned and loose debris removed prior to repointing. A NHL lime mortar to the appropriate specification will be used for repointing, adhering to good conservation practise of replacing like with like materials. All dependant on wall stability.

#### 3.2 Proposed Crèche & Community Facility incorporating existing site walls indexed (A), (B) & (C)

A considered design approach has been taken with the proposed building and overall development. The surrounding neighborhood context including the heritage of Mungret College, have all informed the creche and community facility buildings design. This applies to the palette of materials being used. The inclusion of the walls (A), (B) and (C) as part of the overall design strategy have in a sense rooted the new building to the site. Thereby allowing this part of the colleges heritage to be brought within the public realm.



Fig.12- 3D View of the Creche and Community Facility West Elevation (Note Creche entrance on the North Elevation facing Mungret College. Thus, Creating a link between these two buildings.



There will be six-narrow full height openings created in the inner wall (C)fig.03. These are an integral part of the creche design. They allow shafts of light to pass through the wall and illuminate both the pocket garden and open dining area spaces. This light also spills into the surrounding rooms adjacent to these spaces. This light offers a softness against the strong wall and as the sun moves through the day. This allows a constant change of mood and feel about the open spaces. This can also be said of the seasons. The high summer sun and the low winter sun in the sky. Always creating light, shadow, tone, and texture. That is the importance or retaining this wall and incorporating it in the design.



Fig.13. 3D View of the Creche and Community Facility North Elevation

A central axis way has been created between wall (A) and the Creche and Community Facility. It is the intention to retain as much of the boundary wall (C) stone fabric as possible. Where modifications and interventions are proposed, including section of wall removed. The stone will be stored on site and reused in the construction new section of wall fig.13. This will ensure the wall fabric endures.

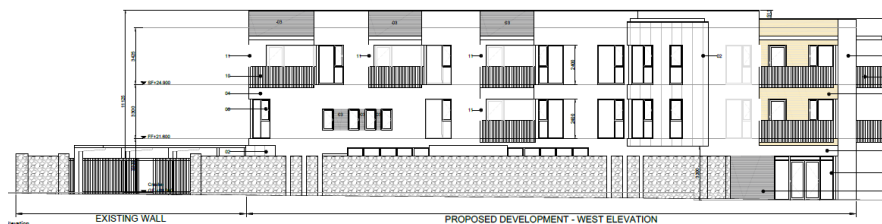


Fig.14 West facing Elevation indicating the tall narrow opes and modifications to the wall.



Fig.15 South facing Elevation indicating the buildings engagement with the wall.

### 3.3 Relationship between the Existing College Complex and Proposed Creche & Community Facility

There is a connectivity between Mungret College, the proposed creche and community facility. This includes the wider context of the overall development. At its core is the community. The college was originally built to facilitate the study of agricultural farming methods, followed then by the Jesuits and their studies.

The proposed creche will be a place for the young during their formative years to grow and develop. The community facility will be a focal point, a place for community to gather. In a sense, the influence and function of the college constructed in the middle of the 19<sup>th</sup> century, has informed the design of this building. Even though the college has seen the agricultural college and Jesuits order pass through it. The heritage of the site endured. As has the architecture of the college complex. It has borne the effects of time, but the essence of this historical building of significance has remained.

The proposed creche and community facility have been influenced by the language of the college's rich palette of natural materials, textures, Colours and tones. The natural Slate, the grey of the limestone, the iron gutters and downpipes, timber doors and windows.

There is a juxtaposition between new and old, the past and the future. A considered design approach has been taken in creating the form of the proposed building and the overall development. The contrast between the college grey stone walls against the white render of the creche. The tall windows being influenced by the proportions of the college windows. The grey brick being influenced by the colour of the college stone. Constantly changing in tone and mood depending on the daylight.

The impact of the creche and community facility including the overall development on the College complex, will be a positive for the overall neighbourhood and wider community.

The inclusion of the existing stone walls indexed (A),(B) and (C)fig.03 have been a key factor in the design of the crèche and Community facility. These have been incorporated into the very fabric of the building including the boundary around the external pedestrian and cycle path. Thus, forming an axis between the creche and existing college.

In summing up, the architectural design of this development has taken account of it surrounding context, the wider neighbourhood, its existing historical buildings, and the heritage that this site invokes. To create a development that merges seamlessly into the fabric of Mungret College built in the middle of the 19<sup>th</sup> Century.

## 4.0 Seismology Observatory

### 4.1 Seismology Observatory Method Statement

#### General Notes:

This building is a protected structure as set forth in the Planning and Development Act 2000 as amended.

A strategy for the conserving and stabilizing of this building is to be undertaken. With an undertaking to keep a detailed record and photograph record of the projects progress. The City and County Council Conservation Officer is to be kept up to date with the projects progress.

The extent of Works to the Seismology Observatory are as follows. To put in place a strategy to conserve, clean and stabilise the buildings current fabric, where appropriate with minor interventions. Therefore, retaining the buildings historical and cultural significance. To removes internal access by the public by way of installing an iron gate and new timber window frame with vertical iron bars (retaining where possible the original iron bars). A protected zone surrounding the structure to be maintained.

A structural engineer is to be engaged at the outset of the project to assess the current structural stability of the building and make recommendations based on their findings.

All vegetation growth is to be carefully removed from the building walls and floor by a qualified professional in the field of conservation. (With care taken to the surrounding fabric, render and concrete)

#### Walls

All vegetation growth is to be carefully removed with care taken not to damage the surrounding wall fabric. This will include any areas of soil deposits found in wall cracks, castellated parapet (ie sloping crenels and merlons) or any part of the wall structure. An expert in this area will be engaged.

The existing level of biological growth (lichens) does not seem to be causing any adverse problems to the wall structure. It is proposed to retain the lichen growth in their current state with no intervention needed. As the current levels have become part of the walls fabric and in essence its visual character. Good practice dictates the retention of such and a strategy will be put in place to monitor the walls biological growth going forward into the future.

Structural Cracks in the wall of +2mm under the supervision of an expert in this area are to be raked out carefully and all loose debris to removed. An epoxy resin or equal approved mortar is to be injected. All to be agreed prior to the works commencing with a structural engineer.

Surface Cracks in the render are to be cleaned and any loose debris or contaminants are to be carefully removed. This is followed by the use of a proprietary mortar to fil the cracks. It is important prior to the commencing of the works a sample area will be prepared to match wall colour.

Areas of plaster loss on the internal face of walls are to be replaced with a layer or lime plaster. A sample area will be prepared prior to the works commencing to match the wall texture and colour.

All repairs to the concrete walls are to be carried out in accordance with British and European Standards BS EN 1504 for the repair

### **Door Ope:**

A new gate with flat steel framing and round vertical bars will be installed on the inner face of the door ope wall (opening inwards). Therefore, creating a deep reveal as viewed externally. The round vertical bars are in keeping with the character of the existing building window bars. Thus, using and acknowledging the existing fabric to inform in the manufacture of the new gate. The gate is to receive a protective coat, primed and painted black.

### **Window Ope:**

Prior to the beginning of works on the window. A survey of the timber frame (head jambs cill) and vertical iron bars including their fixings will be carried out to assess their current condition. The timber frame is to be cleaned and any localised decay will be spliced with new timber (using a compatible wood with similar characteristics to the original). This procedure will also apply to rotten wood. The wood will be primed and painted with a finishing gloss coat. The vertical bars are to be cleaned with rust removed. Note, where corrosion has taken hold, new Iron bars are to be used.

Brushes are to be used when applying the primer and the final gloss paint. The bar fixings to the frame are to be assessed for stability. Any deteriorated fixings will be replaced with similar fixings. A professional in the conserving of historical windows will be engaged for their professional expertise and guidance in this area.

### **Floor:**

The existing vegetation is to be removed from the floor and a new resilient layer installed with a layer of hardcore to stabile the floor.

## **4.2 Relationship between the Existing Seismology Observatory and the Proposed Development.**

When the design of the development was undertaken. The inclusion of the Seismology Observatory was considered a key part in the design. From the outset it was important how this building of significance was to be woven into the tapestry of the new development. Creating a focal point within the neighbourhood. Retaining the clear views of the college complex to the east and the Grotto to the south. Not allowing the development to infringe of these vistas.

The position of the Observatory on the east of the site acts as a link between the new development and the college. Creating an east west axis between both.

The Observatory will be surrounded by an open green space with dwellings to the north, south and east overlooking the building. This will afford a sense of passive security with the dwellings overlooking the building. The observatory will be closed to the public. There will be a steel gate and a timber framed window with vertical iron bars allowing the interior to be viewed. The architecture of the building can appreciate externally and approached from all around its perimeter. This will allow the community to engage with the building and create an integral bond with the new development.

The architecture styles of the new dwellings and the observatory will create an interesting juxtaposition. History merging with the present. The impact of the development on the observatory can be seen as a positive. The observatory will be conserved and stabilised and brought into the public realm, to be engaged by the public and in a sense cared for by the local community.

## 5.0 Conclusion

In concluding, the walls indexed (A),(B) and (C)fig.03 will form part of the proposed crèche and community facility fabric. The life of these historic walls will therefore be prolonged by undertaking a strategy to clean, restore, and repair them. Thus, these interventions will allow the retention of their own individual character. All new openings formed in these walls will have been carefully considered during the design process. A key factor is not to remove the wall's original purpose, which was to surround, protect and create boundaries of safety.

There will be two bays of three opes formed in brick with a colour matching the walls of the college complex in wall (C). This acknowledges the historical materials of the area. The white render of the building offers a contrast between the existing complex and new building. The palette of materials chosen for the new build, and the interventions to the walls all strive to form a sympathetic harmonious relationship between the historical past and the new. The overall aim as previously mentioned, is to protect and prolonging the life of these walls.

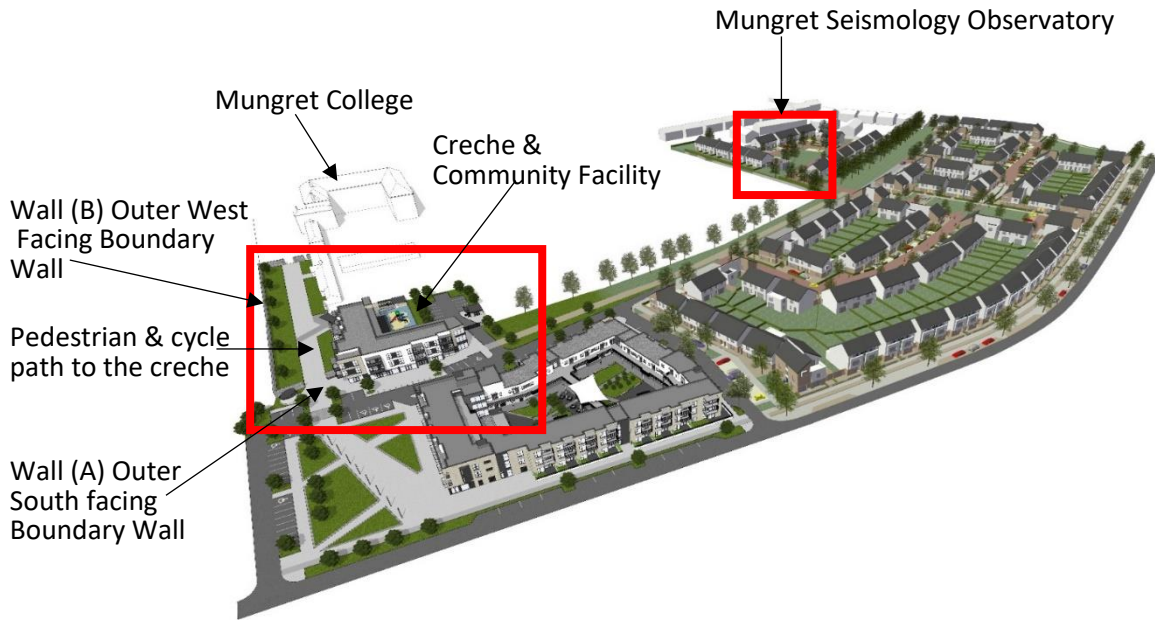
In essence all the modifications have been undertaken to prolong and extend the life of these walls, by being incorporating them into the proposed creche and community centre. Forming a connection with the past and the future.

In conserving and stabilising the Seismology Observatory in its current state. It will be creating a focal point within the context of Mungret college and the proposed development. It will be forming a connection between both, the Past and the Future. The vistas will be retained with the college and the Grotto to the south of the site.

William Morris, the famous designer, craftsman, artist, poet and a significant member of the Arts and Crafts movement, while addressing the 12<sup>th</sup> annual (1889) SPAB meeting said the following:

*“ that these old buildings do not belong to us only; that they have belonged to our forefathers, and they will belong to our descendants unless we play them false. They are not in any sense our property, to do as we like with. We are only trustees for those that come after us”*

Even though he was talking about buildings. These words have meaning. These three walls and the Seismology Observatory are a part of the sites wider historical context. Their heritage and historical fabric are a connection to the sites past, its present standing and going forward its renewal and reuse. These walls were constructed for a purpose and formed an integral part of Mungret's Agricultural college. The Seismology Observatory was constructed at a time when earthquakes and geological studies were coming to the fore. This was the first observatory to be built in Ireland with the second in Rathfarnham Dublin. These were connected to a network of stations around the world. All endeavouring to understand seismological events. It is important to conserve and retain such heritage. As it is a connection to the past and the crafts people who built them. To a far-reaching global history. Its a link to the people who operated them. In essence They are the fabric of our architecture and culture.



*Fig.16: 3d View of the proposed development with the Creche and Community Facility And Seismology Observatory outlined in Red.*

## 6.0 Glossary

**Ashlar Stone:** Is a cut dimensioned stone laid in with fine joints in courses.

**Biological Growth:** Includes algae, lichens, fungi, mosses and higher plants (ie. Ivy grass bushes and trees)

**Cast Iron Steel:** Steel made by pouring hot molten iron into a premade mould (of a required shape). Left to cool and removed.

**Corbel:** This is a stone that projects from the wall. Often used to support another material above it.

**Course:** This is a layer of stone constructed to a specific height and maintained.

**Drafted Margins:** This is a smooth margin at the edge of the stone.

**Fascia:** This is the board found below the line of roofing slate or finish. The gutter is fixed to it.

**Flashing:** Is a material used to protect abutments. It is usually lead and is available in various weights

**Glazing Bars:** Is the bar that divides the panes of glass in a window. The can be timber or metal.

**Jamb:** The vertical side to an opening in the wall.

**Keystone:** The central stone in an arch.

**Lime:** Lime is a material made from limestone being fired in Kilns to produce a material known as quick lime. Then its slaked to produce lime putty.

**Limestone:** This is a sedimentary rock and is classified as a soft stone.

**Meeting Rail:** These are the rails that sit adjacent to each other when two sash windows are closed.

**Mortar:** The material used to bind courses of stone, brick or block together. Can be cement or Lime based. With water and sand

**Mullion:** A vertical division in a window frame.

**NHL:** This is a hydraulic lime and comes in 3 grades, 2, 3.5 and 5. This is based on the minimum compressive strength of the mortar at 28 days.(N/mm<sup>2</sup>)

**Parging also known as torching:** Is the layer of lime plaster applied to the inside of the slates. It is an extra line of protection from wind driven rain.

**Pinnings:** These are small stones that are inserted into mortar joints between the stone courses. The stiffen the wall and reduce the amount of mortar exposed in the joint.

**Quoin Stones:** The corner stones which are used at the corners of buildings and opes. The provide stability. The are fine cut stones laid in alternative long and short courses.

**Random Rubble Wall:** Wall using large and small stone laid in horizontal courses.

**Sliding Sash Window:** Timber windows made up of a top and bottom sliding sash. The sashes are housed in a sash box. The sash box contains the counter balancing weight attached to chords in turn fixed to the window sashes. This is the mechanism which the windows can be open and closed.

**Soffit:** The underside of a structure or a surface plane.

**String Course:** This is a horizontal band of stone found on the building elevation wall.

**Tooled Stone:** The finish applied to a stone.

**Vernacular:** Building that use locally sourced materials and built to traditional methods

**Vousoir:** These are wedged shaped stone used to form an arch.



## 7.0 Acknowledgements

We would like to acknowledge and thank Tom Cassidy, Conservation Officer at Limerick City and County Council for his valued input and guidance with this Conservation Report.

We would like to acknowledge and thank Michael Pledge.

## 8.0 Reference

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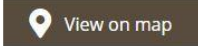
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## Appendix A: NIAH Record

### A1: Mungret College, Dromgarrig, County Limerick. Reg No. 21901312

**Mungret College, DROMDARRIG, County Limerick**





#### Survey Data

Reg No	21901312
Rating	Regional
Categories of Special Interest	Architectural Artistic
Original Use	College
In Use As	Office
Date	1850 - 1870
Coordinates	153964, 153543
Date Recorded	18/11/2007
Date Updated	--/--/--

#### Description

Attached thirteen-bay three-storey former college, built in 1858, with Ionic portico and slightly projecting end bays to front, six-bay return to west and nine-bay return to east. Two-bay two-storey addition to south-west. Hipped slate roof with terracotta ridge tiles and joint tiles, decorative timber eaves course. Rendered chimneystacks. Cast-iron rainwater goods. Flat-roofed portico to centre with carved limestone Ionic columns. Four-sided scrolled with foliate imagery and decorative beading. Approached by three limestone steps. Snecked limestone ashlar to ground and first floor with tooled limestone stringcourse dividing. Lined-and-ruled rendered walls to second floor. Limestone projecting plinth course. Square-headed recesses marking blocked window openings to ground and first floor side elevations. Square-headed window openings with two-over-two pane and six-over-six pane timber sliding sash windows. Some replacement uPVC windows. Square-headed door opening with carved date plaque on carved limestone cornice, supported by carved scrolled consoles. Carved limestone roll moulded surround and timber paneled door to opening. Recently inserted square-headed door opening with timber panelled door to west elevation. Courtyard and outbuildings to rear comprising ten-bay two-storey west range with multiple-bay single-storey south-west range, six-bay-two storey east range, and eight-bay single-storey south range. East range comprising attached range of buildings, with hipped slate roofs and rendered chimneystacks. Coursed rubble limestone walls. Square-headed window openings with tooled limestone sills. Two-over-two pane timber sliding sash windows and replacement timber framed casement windows to openings. Square-headed door openings with timber battened doors. Attached recent nine-bay single-storey pitched-roofed building to courtyard area. Hipped roof to south range, with partial roof collapse in areas and rippling ridge in places. Coursed limestone rubble walls with some blocked segmental-headed window openings forming recesses. Segmental-headed window openings with tooled limestone surrounds and limestone sills. Replacement timber framed multiple-pane windows. Square-headed opening with sliding timber battened door. Square-headed door openings with timber battened door. Square-headed ventilation openings with wire mesh.

West range comprising hipped slate roof with cast-iron rainwater goods. Coursed limestone rubble walls, with smooth render to first floor level west elevation. Square-headed window openings with some six-over-three pane timber sliding sash windows and some replacement timber casement windows. Cast-iron bars to window openings. Separated from south-west range by round-headed carriage-arch with open-work bellcote over. Snecked ashlar walls with tooled limestone voussoirs to arch opening. Moulded cornice to bellcote. Round-headed opening to bellcote. South-west range having hipped replacement-slate roof with recent rooflights and rendered chimneystacks. Snecked ashlar walls. Round-headed openings with tooled limestone voussoirs and timber battened doors. Building complex attached to collegiate-church and set in landscaped grounds. Multiple-arched coursed limestone rubble folly-shrine to south-east.

### Appraisal

In 1858 the Commissioners of Education opened an agricultural college at Mungret. Later it became a Jesuit Apostolic school and then a lay secondary school from 1882 until 1974 when it closed as a school for the last time. The college was opened largely due to the influence of Thomas Spring Rice, Lord Mounteagle of Bandon, Chancellor of the Exchequer in England and an Irish landlord. It was built to accommodate seventy to eighty students but never had more than fourteen students and at times as few as four. In 1877 it was decided to close the college. It was rented by the Bishop of Limerick for his seminarians for the scholastic year of 1880-1881 and was then vacated. This surviving substantial building retains a strong sense of its original imposing character. The Ionic portico from the demolished eighteenth-century country house, Tervoe, survives intact on the front of this building. The regularity of the classical proportions is enhanced by the unadorned ashlar masonry and lined-and-ruled upper floor façades giving the buildings a dignity and presence fitting to its original purpose as an educational institution. The outbuildings to the rear surrounding the formal courtyard serve as a reminder of the site's original function as an agricultural college. Mungret College is an essential part of the architectural character of this area, forming a focal point in the manicured landscape. The date stone furthers the building historical interest, and was added when the building was opened as an apostolic school for Jesuits.

**A2: Mungret College, Dromgarrig, County Limerick. Reg No. 21901312  
(Mungret Observatory)**

**Mungret College, DROMDARRIG, County Limerick**



**Survey Data**

Reg No	21901314
Rating	Regional
Categories of Special Interest	Architectural Artistic
Original Use	Folly
In Use As	Folly
Date	1870 - 1890
Coordinates	154173, 153448
Date Recorded	18/11/2007
Date Updated	--/--

**Mungret College - Reg. No. 21901314**

**Date:** 1870 - 1890  
**Original Use:** folly  
**In Use as:** folly  
**Rating:** Regional  
[View Main Record](#)



**Description**

Freestanding single-bay single-storey folly, built c. 1880. Flat roof with rendered crenelated parapet and eaves course. Lined-and-ruled rendered walls with pilasters to corners and render plinth course. Circular rainwater drain hole to rear elevation. Segmental-arched window opening to south with rendered sill and surround, having cast-iron bars. Segmental-headed door opening to west having render surround.

**Appraisal**

This castellated folly built in the grounds of Mungret College retains a sense of its original drama, with an impressive castellated form that belies its diminutive size. The building is of architectural merit and creates a context for the college building and mirrors some of the latter's architectural character. It may also have formed part of the demesne of the nearby former Mungret House.

## Appendix B: Proposal Drawings

### Drawing List:

- 3479-EML-XX-XX-DR-A-0001 - Location Map
- 3479-EML-XX-XX-DR-A-0002 -Block Plan – Overall Site
- 3479-EML-XX-XX-DR-A-0006 - Site Plan-Part B
- 3479-EML-XX-XX-DR-A-0011 – Detailed area Creche Building
- 3479-EML-XX-XX-DR-A-1120 - Creche, Community Facility & Apartment Block Ground Floor Plan
- 3475-EML-XX-XX-DR-A-1125- Mungret Seismic Observatory
- 3479-EML-XX-XX-DR-A-1201 - Sections
- 3479-EML-XX-XX-DR-A-1310 - Creche, Community Facility & Apartment Block Ground Floor Plan, South & East Elevations
- 3479-EML-XX-XX-DR-A-1311 - Creche, Community Facility & Apartment Block Ground Floor Plan, North & West Elevations
- 3479-EML-XX-XX-DR-A-1604 3D – Images 4
- 3479-EML-XX-XX-DR-A-1605 3D – Images 5

## Appendix C: Photographic Record of Seismic Observatory & Retained Boundary walls.



*C1: Observatory North Facing Elevation*



*C2: Observatory North & East Facing Elevations*



*C3: Observatory North Facing Elevation*



*C4: Observatory South Facing Elevation*



*C5: Observatory South Facing Elevation, Indicating Window completely overgrown with vegetation*



*C6: Observatory East Facing Elevation*



*C7: West Facing Elevation, indicating main entrance door.*



*C8: Observatory West Facing Elevation, indicating main entrance door.*



## Appendix D: Photographic Record of Retained Boundary walls.



*D1: South Boundary Wall*



*D2: South Boundary Wall*



*D3: South Boundary Wall*



*D4: South/West Boundary Wall*



*D5: West Boundary Wall*



*D6: West Boundary Wall*



*D7: Wall (C)fig.03 External elevation Piers to be retained.*



*D8: Wall (C)fig.03- Internal elevation Piers to be retained.*



*D9: Wall (C)fig.03- South Inner wall ( C) / South Elevation Building K*