

Galway Simon Community – Market Street

Residential Development at 13 Market Street,
Galway City

Engineering Desk Study



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1.0 Introduction

1.1 Introduction

The following report describes the findings of a preliminary desk study for a proposed development site and existing building at Market Street, Galway. The Housing Agency has been engaged to complete a feasibility study with a preliminary design in the first instance. A Stage 1/ Capital Appraisal submission to the Department of Housing, Local Government and Heritage may follow depending on the outcome of the preliminary design. The purpose of the desk study is to collate, review and evaluate available information relating to previous land uses, archaeology, existing site services, soil, groundwater and other conditions at the proposed site to help inform the preliminary design recommendations for additional investigations and surveys that would be required to complete the detailed design and calculate the Order of Magnitude Costs (OMCs) for the proposed development. Figure 1-1 below indicates the proposed development location.

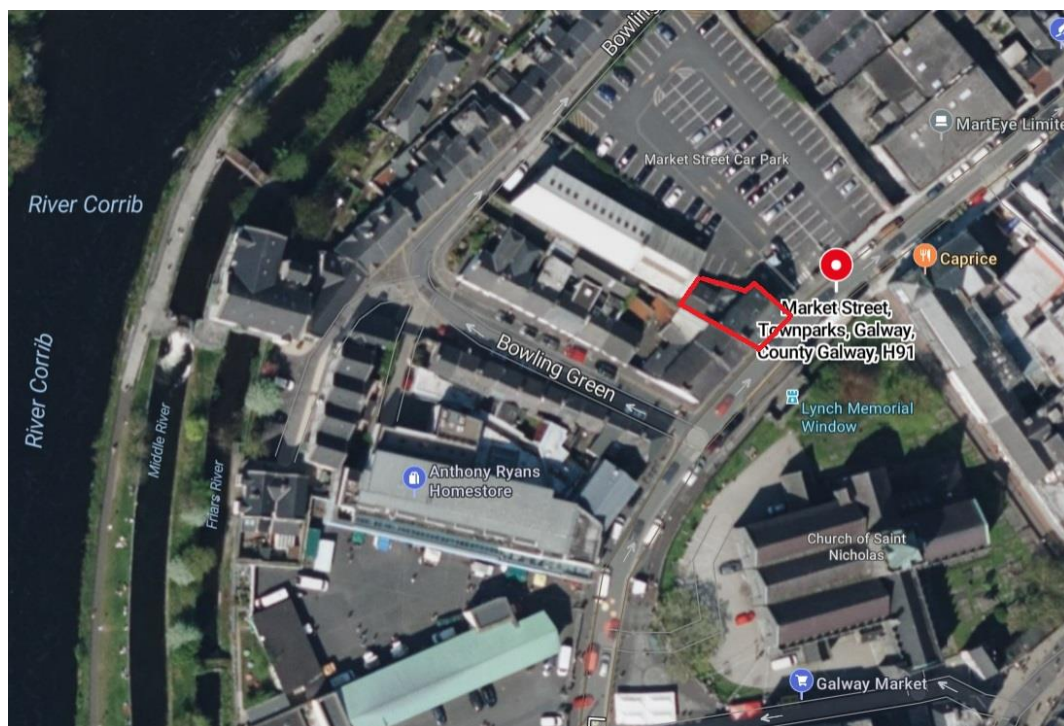


Figure 1-1 Plan View of Site, Market Street, Galway

1.2 Project background



Figure 1-2 Existing Building, Market Street Galway

The building is a 4-storey building. The building is vacant but was previously used as long-term homeless accommodation by the Society of St. Vincent de Paul. It is laid out into small cellular one person rooms, with shared bathroom facilities at 1st, 2nd and 3rd floor level. The 3rd/top floor of accommodation is in the original attic space. The bottom floor contains shared living areas and kitchen facilities.

Galway Simon Community intend to purchase the property, subject to structural survey and confirmation of feasibility for development into self-contained apartments. The project will involve

- demolition of an existing extension to the rear of the building
- repair and refurbishment of the building fabric
- provision of lift and fire escape stairs to the rear in a new extension

1.3 Scope and Objectives of Desk Study

The objectives of the desktop study are to:

- Describe the environmental setting of the site.
- Identify existing services and any possible diversions/upgrades that may be necessary.
- Summarise the underlying geology and hydrogeology.
- Summarise the findings of any historical ground investigation work.
- Present a preliminary qualitative evaluation of potential land contamination risks and potential geotechnical issues.
- Provide recommendations for further investigative work that should be carried out.

Detailed commentary on the planning history of the site and building will be provided separately by the architect preparing the feasibility design.

More detailed investigative work should be carried out at later stages of the project including:

- Topographical survey
- Geomatic Building Survey
- Building Condition Survey and Structural Assessment
- CCTV surveys of drains
- Geotechnical Investigations which may be limited to techniques which use small probes given that almost 100% of the site is currently covered by the building footprint.

1.4 Sources of Information

The report has been prepared using the following information sources:

- Property Survey photographs – Housing Agency June 2024
- Google maps (Aerial Photography, Street View) - www.google.ie/maps
- Geohive Maps – www.geohive.ie
- Ordnance Survey Ireland Maps and Aerial Photos (Historical)- <http://www.osi.ie/>
- Teagasc soil maps - <http://gis.teagasc.ie/soils/map.php>
- EPA Maps – <http://www.epa.ie>
- GSI Borehole database - <http://spatial.dcenr.gov.ie/GeologicalSurvey/GeoTechnicalViewer/index.html>
- GSI Groundwater viewer - <http://spatial.dcenr.gov.ie/GeologicalSurvey/Groundwater/index.html>
- Geological maps - <http://geologicalmaps.net/IrishHistMaps/mapIndex.cfm>

- Contact with utility providers (Uisce Eireann / ESB / Gas Networks Ireland / Eir / Virgin Media / BT Ireland / E-Net)

1.5 Limitations of the Report

Reference has been made to historical Ordnance Survey Ireland (OSI) maps. These provide information regarding the land use history of a site. However, it should be noted that historical evidence will not provide a full record of the site's history as they do not cover the period prior to the first edition of the periods between successive editions.

The study is limited by the non-intrusive nature of the work and actual risks can only be assessed following an intrusive investigation of the site. Any risks identified in this report are perceived risks, based on the information reviewed during the desk study and therefore partially based on conjecture from available information.

Specialist advice in relation to archaeology is not within the scope of the report.

The opinions expressed in this report and the comments and recommendations given are based on an initial desktop study of readily available information and an initial site inspection by the Housing Agency. The information, views and conclusions drawn in the report are based on information supplied to the Housing Agency by other parties. The Housing Agency accepts no liability for any inaccurate conclusions, assumptions or actions taken resulting from any inaccurate information provided.

2.0 Site Conditions

2.1 Description of Construction Works

The works involves for the redevelopment of the property located at 13 Market Street, Galway into 4 No. self-contained apartments with a support office for GSC.

2.2 Site Location

The site is located at 13 Market Street, Galway City, Co. Galway as shown on Figure 2-1 below. The Church of Saint Nicholas is located opposite.

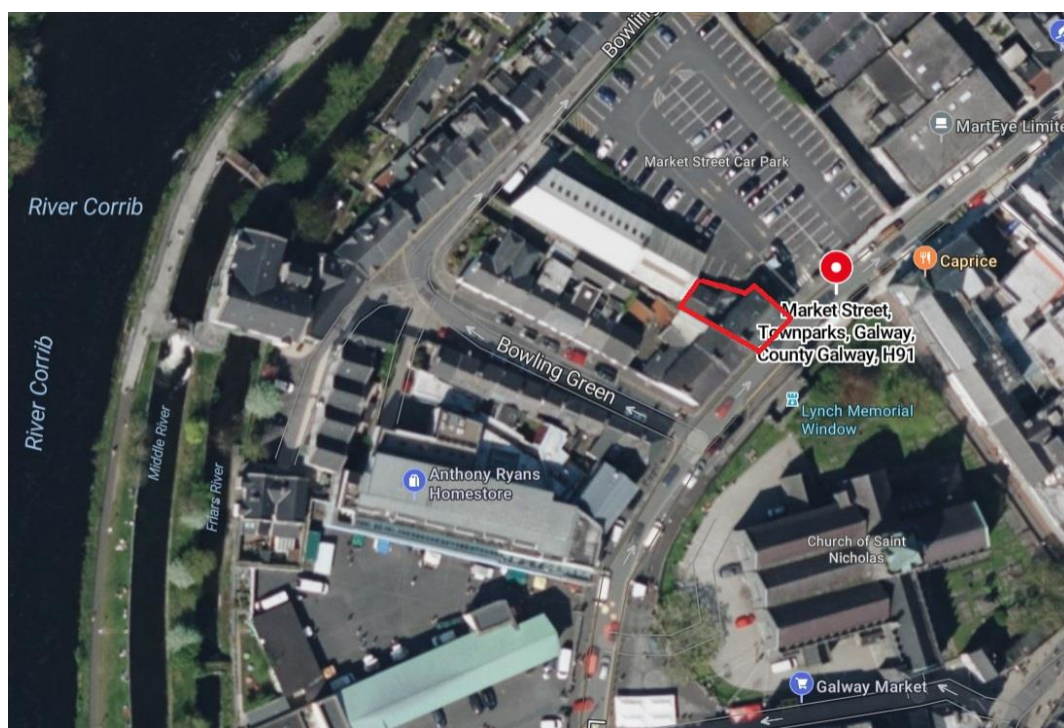


Figure 2-1 No. 13 Market Street, Galway City, Google Maps

2.3 Site Description

The site is bounded to the south by Market Street, to the north and east by an existing carpark, and to the south-west by existing adjoining buildings. The building can be access via a door at the front which opens onto Market Street. There is a footpath along northeast gable which is a pedestrian entrance into the public car park. There is an access gate within the boundary wall from this footpath to a small rear yard of the subject site. The site is almost entirely covered by existing buildings, including extensions to the original.

2.4 Topography

There is no topographical survey available for the site. Indicative floors plans were provided by Galway Simon and are included in the appendices. A topographical survey of the site and an accurate Geomatic survey of the building should be completed as the design progresses.

2.5 Access to the site

Access to the building is from Market Street and from a gate into the rear yard off the pedestrian footpath into the car park. The ownership of this footpath is unknown. It should be confirmed if there is a permanent right of way from the rear yard of the building onto this footpath.

Market Street is a busy vehicular and pedestrian thoroughfare. The public footpath outside the building is narrow (circa 1m). There are single or double yellow lines on both sides of the road and portions of the footpath opposite have bollards, presumably as an additional measure to prevent ad hoc parking in the area. A loading bay is provided outside the Church Grounds opposite, see Figure 2-2.

Demolition, extension and refurbishment works should be planned and executed to take account of the restricted access and parking for construction vehicles in this generally very busy city centre area. The loading bay and with the Market Street Carp may be available for access and parking by agreement with the local authority and car park owner. Depending on the extent of works scaffolding with crash decks in public areas may be needed to the front and gable of the building. Pedestrians may be rerouted to the footpath on the opposite side of the road.

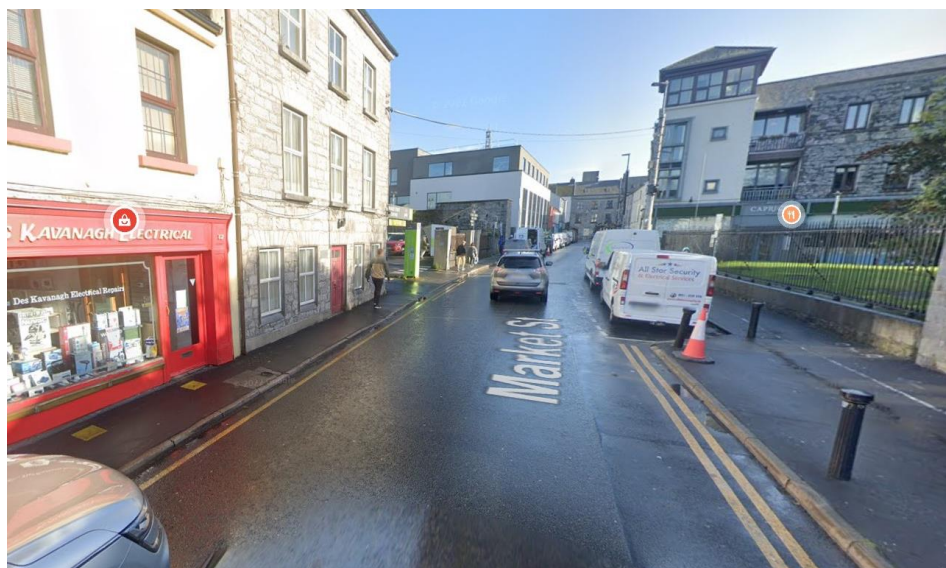


Figure 2-2 View along Market Street

2.6 Existing Building

The existing building is of traditional stone construction with a cut timber roof. It is assumed that the original attic space was converted to use as bedrooms at some stage after the original construction. The building is on the Galway City Council Record of Protected Structures, structure reference number 5407. Alterations must be carried out in accordance with the principles of conservation and in accordance with the requirements of Galway City Council's Conservation Officer. The condition of the building is unknown generally however it appears to be at least 200 years old, and some deterioration of fabric is likely to have occurred. There are signs of water ingress in the converted attic space at various locations. There is single storey extension to the rear which also shows signs of water ingress or damp. A detailed condition survey and structural assessment should be undertaken as the next stage of the feasibility design.

During the site visit by the Housing Agency it was noted that internal walls have been removed at ground floor and it appears that there a structural frame, most likely steel, was installed to support the upper floors. The structural assessment should include this frame.

The building is very close to the "Portershed" offices to the rear. This building is clad but may be very old because buildings occupying that footprint are shown on the historic OS Maps and older photos of the site indicate a masonry building. Refer to Figure 2-3 and Figure 2-4.

It is likely that structural repairs were carried out during the refurbishment of the Portershed

but given its age it will still be brittle and potentially vulnerable to damage. The proximity to this building, the access constraints and the restricted space available on the site will result in construction challenges that will be require careful design and execution. Written agreements or at least outreach to and ongoing liaison with the neighbours will be required in relation to boundary walls. Temporary Works to protect structures and other perhaps weathering and reinstatement measures may be required. Galway Simon may consider enabling the project by demolishing the structures to the rear in a separate phase but this is likely to be less cost effective that a single phase project.



Figure 2-3 View of Porterhouse building as it currently exists



Figure 2-4 View of Porterhouse prior to refurbishment

The development proposal includes the installation of a lift. If a deep sump is required for this lift, then underpinning of existing stone walls may be needed. Indeed, foundations for any new extension are likely to be deeper than the footings to the original walls. A foundation solution that is sensitive to the original building should be developed at the detailed design stage.

2.7 Bats/Birds

The building is not derelict but has been vacant for a period. There is limited space available for birds and bats to nest but specialist advice and surveys may be needed at a later stage.

2.8 Existing Services

Record maps for existing services were reviewed. Records may not be exhaustive, and the extent location and nature of existing services should be confirmed by further investigations as the project progresses.

2.8.1 Water/Wastewater

There is existing water and public sewer mains in the vicinity of the site. Refer to Figure 2-5 and Figure 2-6 below.

There is an existing 300mm combined sewer running along Market Street at a depth of between 1.2m and 1.5m below ground level. It is assumed that there is an existing private connection onto this sewer from the building. Further investigations, via topographical survey and/or CCTV camera surveys will be required to confirm this. There is no separate storm water sewer in the street. If a new connection to the existing system is required, Uisce Eireann may require that provision is made for separation of the systems and other measures such as attenuation or SuDs are implemented.

Mains water services consist of 150mm Ductile Iron Running along Market Street. There may be a road crossing here required depending on the status of the existing water connection along with new metering systems.

An application to Uisce Eireann can be made on the basis that there is no intensification of use associated with the refurbishment.

Uisce Éireann Fowl Network 13 Market Street Galway

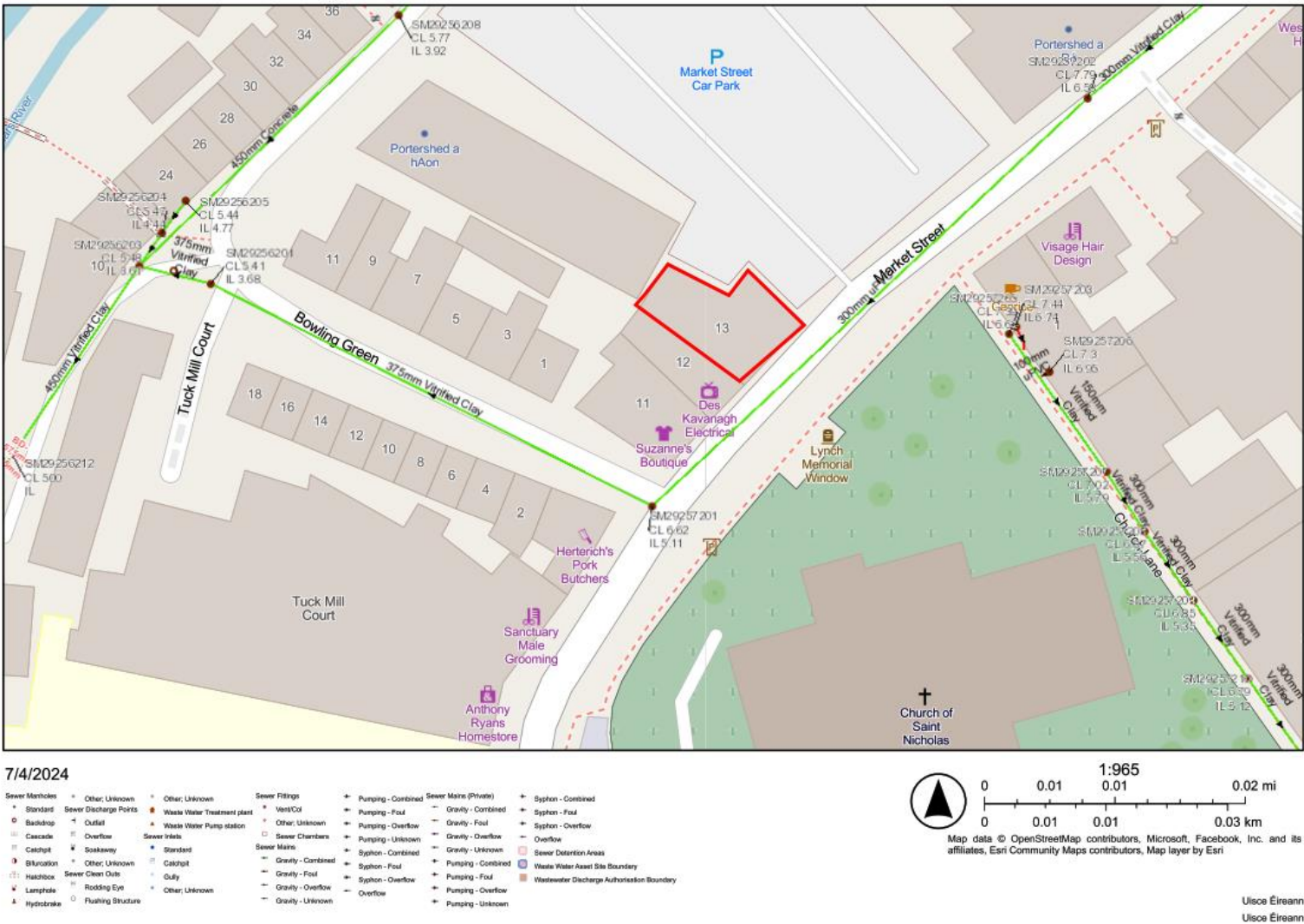


Figure 2-5 Plan map of Uisce Éireann Combined Network Layout

Uisce Éireann Water Main Layout 13 Market Street, Galway City

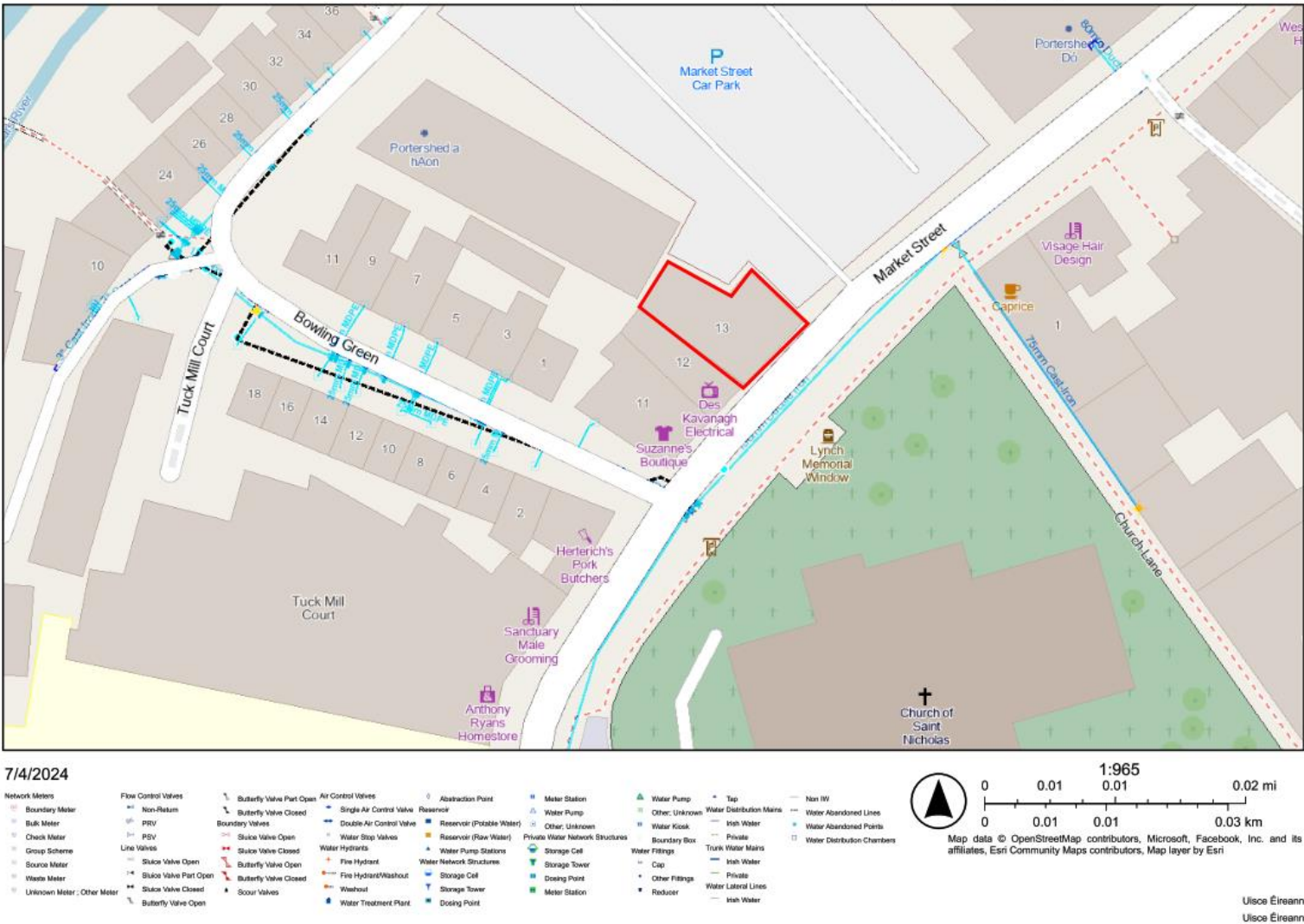


Figure 2-6 Plan map of Uisce Éireann Watermain Layout

2.8.2 ESB

There is an existing connection to the ESB network at the building. Overhead lines are located to the front of the site, refer to Figure 2-7

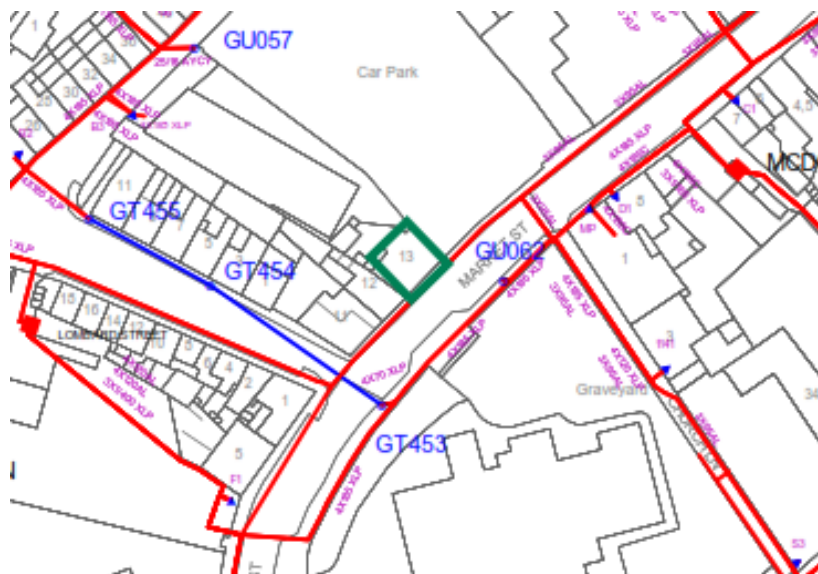


Figure 2-7 Map of Existing of ESB Services

2.8.3 Gas

Gas Networks Ireland have confirmed that they have no record of any gas lines in the region of the site. Refer to Figure 2-8.

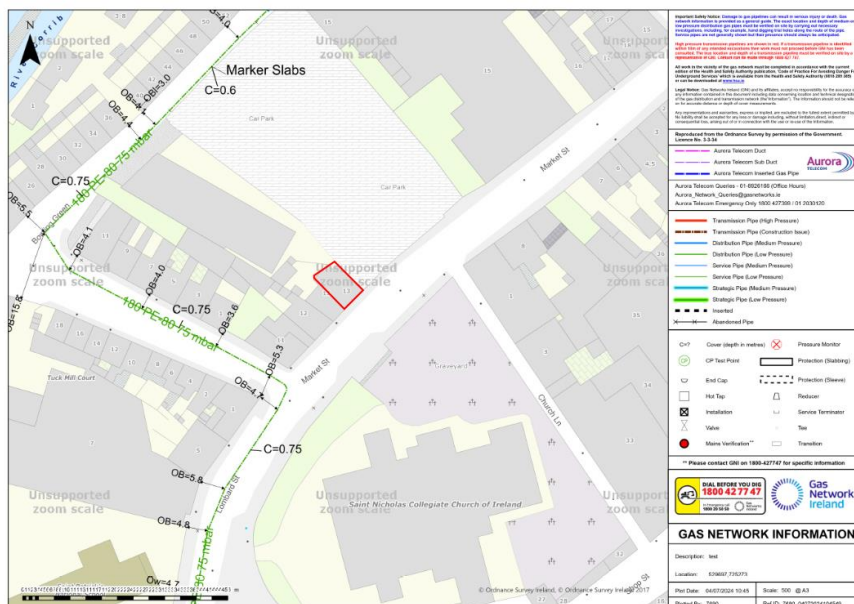


Figure 2-8 Map of Existing Gas Network Ireland Services

2.8.4 Eir

There are existing Eir services available at the site. See Figure 2-9 below.

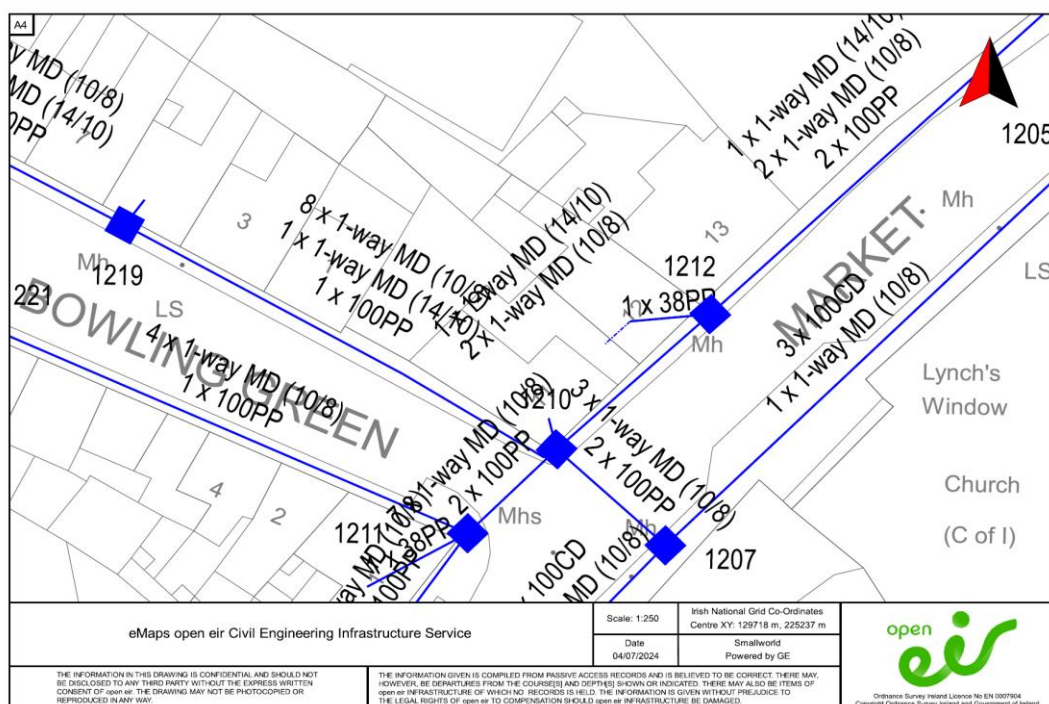


Figure 2-9 Map of Existing Eir Services

2.8.5 Virgin Media

Virgin Media confirmed that they have no record of any plant in the vicinity of the site.

2.8.6 BT Ireland

BT's GIS Team have confirmed that they have no record of any plant in the vicinity of the site.

2.8.7 eNet

eNet's Planning Team have confirmed that they have no record of any plant around the site.

3.0 Existing Site Conditions

3.1 Historical Maps

Reference was made to historical Ordnance Survey maps of the area. The map shown in Figure 3-1 below indicates that there was a structure on the site in the early part of the 19th century. There is an old rubble wall at the northwest of the car park. This is likely to be remains of the structure shown on the map below on what is the northeastern boundary to the car park.



Figure 3-1 6" Maps - First Edition (1829-1841), OSI

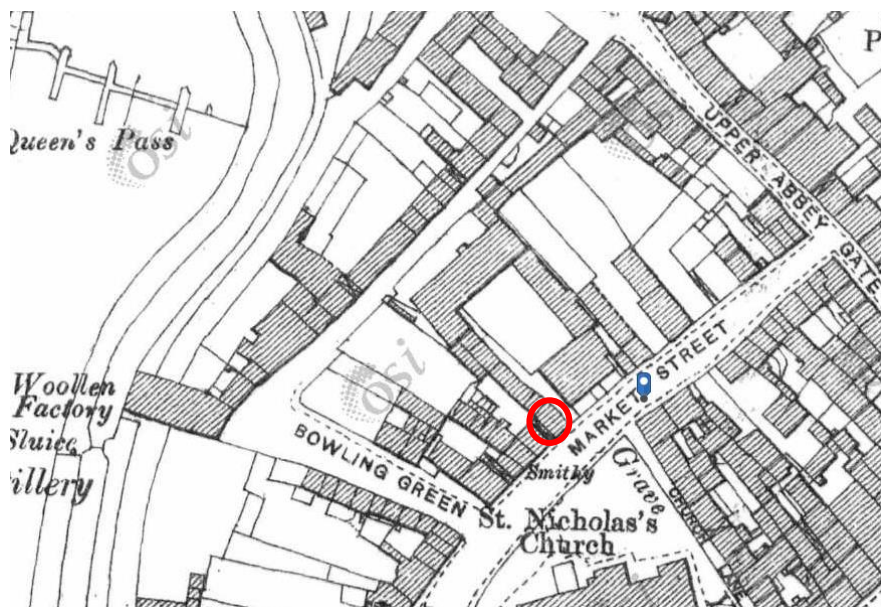


Figure 3-2 25" Maps - Final Edition (1898), OSI

The 25 inch maps from 1898 indicates little change in the general layout of the buildings around site. There is some additional detail on the map including tat there was a blacksmiths workshop in the vicinity of the subject buidings.



Figure 3-3 Aerial Map - (1995), OSI

The 1995 Aerial Photo is of poor quality but some of the buildings may have been demolished by that stage and the car park may have replaced them.



Figure 3-4 Aerial Map - (2001), OSI

The 2001 Aerial Photo shows that by that stage the layout around the building is much as it is

currently.

3.2 Archaeology

There are several records of monuments in the vicinity of the sites including

- **GA094-100067**- which relates to an architectural fragment of St Nicholas Church across the road from the building, which was built circa 1854
- **GA094-100042**- : Castle - tower house: The map indicates that this is located in the market street carpark. There is no further information available on monument.
- Other records related to St. Nicholas Church itself.

The site has already been previously developed, as has the surrounding area. Therefore, significant archaeology in the vicinity may have already been recorded. A specialist archaeological desk study should be carried out for this site, nonetheless, given the medieval history of the city. Further details on the Castle Tower house monument should be available after that.

3.3 Site protections

The site is not in or near a Special Protection Area (SPA), a Special Area of Conservation (SAC) or a National Heritage Area (NHA).

3.4 Geology

There is no record of any site investigations having been previously conducted on the site. Data acquired from Geological Survey Ireland would indicate that the local bedrock is mainly quartz, as indicated in Figure 3-5. Soil maps indicate that made ground may be present. Refer to Figure 3-6.

Soft spots may be present at site due to presence of made ground and the history of previous excavations at the site. Further investigations will be needed to determine if there are any other concerns. There may be records related to the refurbishment of the surrounding buildings and enquiries could be made to their owners in this regard. It is noted that a passenger lift is proposed for the development, and this may necessitate a locally deep excavation for a lift pit/sump. Excavations for this may be affected if bedrock is shallow.

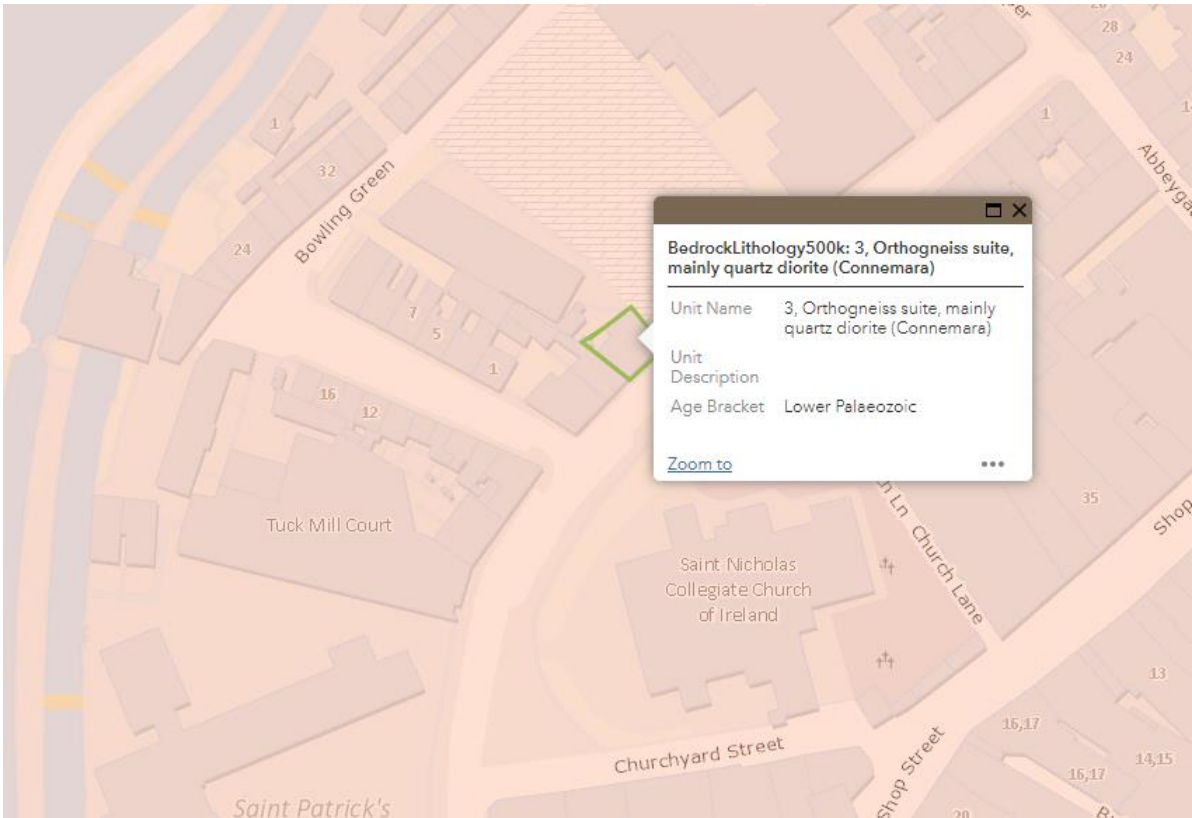


Figure 3-5 Geological Survey Ireland Plan Map of the Site at 13 Market Street, Galway City. (GSI)

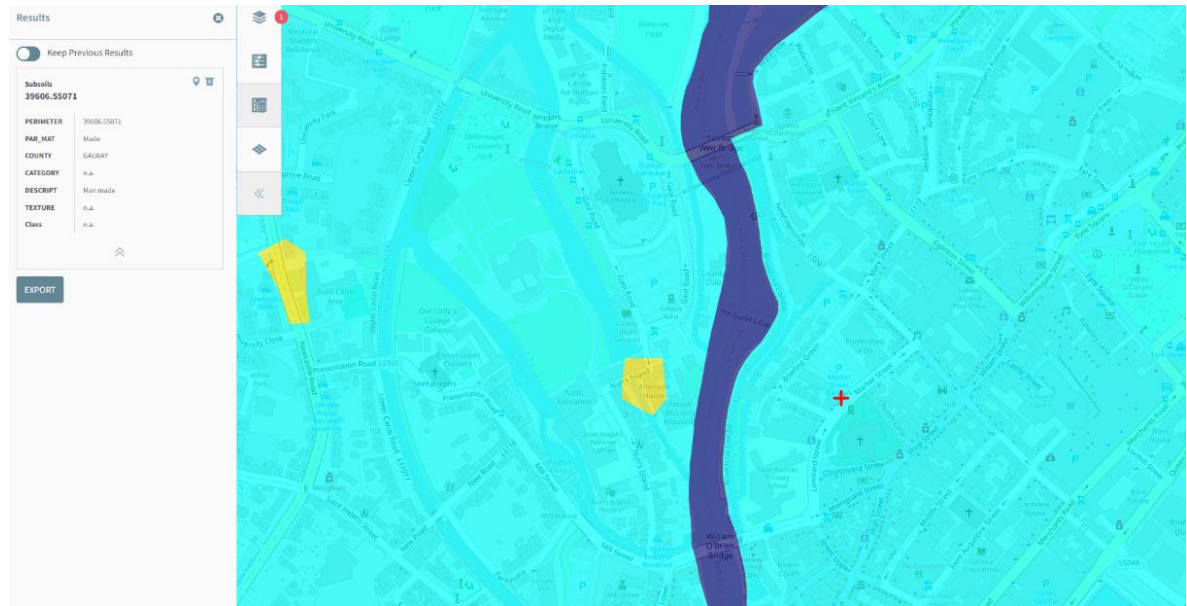


Figure 3-6 Subsoils Map indicating made ground at location of site, (EPA)



Figure 3-7 Soils Map indicating Coarse Loamy material surrounding, Teagasc

3.5 Flooding

Figure 3-8 below shows the medium flood risk extent for the River Corrib with the site marked with the red cross. The site is approximately 75m from the Corrib and is outside estimated medium risk flood zone. Records of previous flooding in Galway City area were reviewed. There are records of flood events in the general city centre area but not a market street. It is believed that the residual flood risk is acceptable. However a site-specific flood risk assessment should be carried out for the proposed development nonetheless.

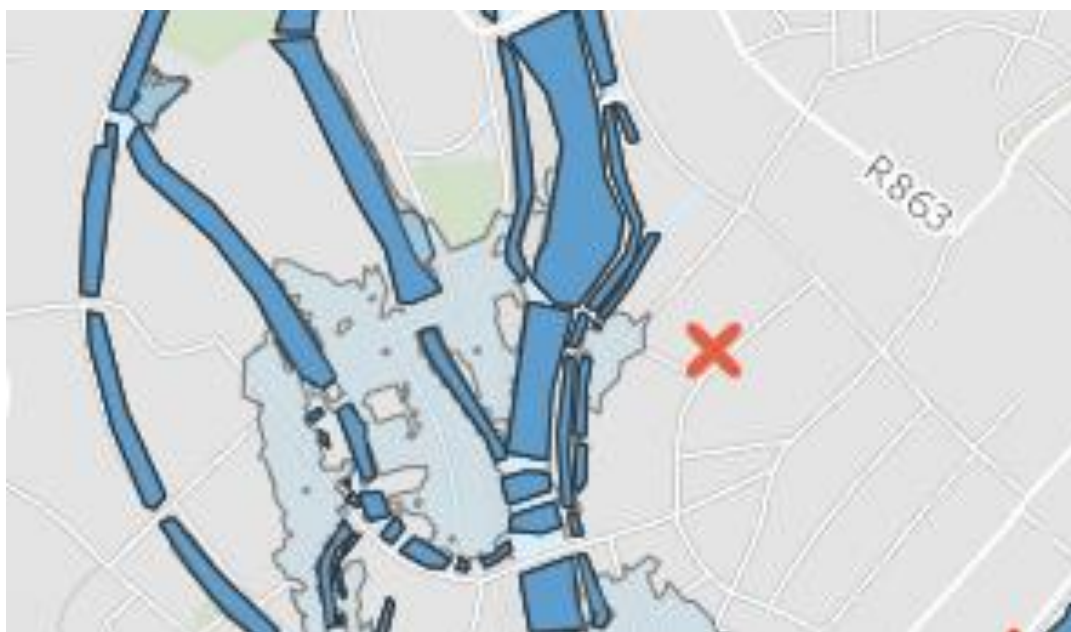


Figure 3-8 Map showing OPW flood mapping database information.

3.6 Invasive species

There have been no invasive species identified as of the compiling of this report and none are anticipated.

4.0 Demolition

Demolition of the existing extensions to the rear of the original building is planned. This will involve relatively small quantities of demolition and construction waste. Alterations within the building may also require localised demolition.

4.1 Asbestos Containing material

An Asbestos Demolition Survey should be conducted in advance of any demolition works. Asbestos Containing Materials may have been added over the years in successive modifications and refurbishments.

5.0 Conclusions

The condition of the existing building should be established via detailed condition surveys. A structural assessment should also be completed. Alternations, repairs and upgrades to the existing building should be carried out in accordance with the principles of conservation. The building if of traditional stone construction and thermal upgrades such as insulation should take this into account, ensuring walls and floors remain breathable.

The building to the rear is also likely to be protected or at least architecturally and structurally sensitive and the design, demolition and construction solutions adopted will need to be cognisant of that.

Geotechnical investigation techniques may be limited to small probe devices give the limited space available. The risk of soft spots and made ground will remain open until the demolition of the existing structures has been completed and the ground conditions can be examined in more detail. Phasing of the work by proceeding with demolition may not be cost effective.

The site is in an archaeologically sensitive area and specialist input will be required at in the next stage of design.

The condition and size of the existing sewer and water connections to the public network are unknown. These should be surveyed in more detail via topographical and CCTV surveys. However, it should be assumed at this stage that an upgrade will be required. An application can be made to Uisce Eireann (UE) on the basis that there is no intensification of use associated with the refurbishment but UE may condition upgrades to the system if there are local capacity issues. The costs of new connections to the UE network should be allowed for in the OMCs.

It should be noted that there are no separate surface water drainage systems in the vicinity and UE are likely to require that the systems are separated within the site and that provision for future connection to a separate surface water drain be allowed. They may also require SuDS measures and/or attenuation measures to be adopted if a continued connection of surface water run-off from the site is to be permitted.

During the construction/refurbishment phases, construction traffic will need to be managed through a traffic management plan agreed with the local authority. Pedestrian traffic will need to be carefully considered. Hoarding and scaffolding with crash decks will be required for the duration of the works.

5.1 Additional Surveys

The following additional surveys are required to allow the design to be progressed:

- Topographical survey of the site
- Geomatic Survey of the building
- Detailed Building Condition Survey and Structural Assessment
- CCTV Survey of Drains
- Asbestos survey of the building
- Geotechnical investigations (which may be limited to smaller probe devices due to the coverage of the building on the site)

5.2 Specialist consultancy Services

The following specialist consultancy services should be procured in advance of the Planning Application/Part 8 process and the Stage 2 submission to the Department of Housing, Local Government and Heritage.

- Full Design Team including Architect including Conservation Architect, Civil and Structural Engineer with conservation experience, Building Services Engineer and Quantity Surveyor
- Archaeologist
- PSDP
- Site Specific Flood Risk Assessment

Galway City Councils Archaeological advisor should confirm if an Archaeological Impact Assessment is required given that historic nature of the site and surrounds.